ATTACHMENT 1

WASTE ANALYSIS PLAN

GLOSSARY

Effective April 22, 2019, the Michigan Department of Environmental Quality (DEQ), Waste Management and Radiological Protection Division (WMRPD), became the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Materials Management Division (MMD).

40 CFR	Title 40 of the Code of Federal Regulations
ABR	Adopted by reference
Act 207	Michigan Fire Protection Act, PA 207, as amended
Act 451	Natural Resources and Environmental Protection Act, 1994 PA 451, as amended
Dynecol	former name of facility, now known as US Ecology Detroit North, Inc US Ecology Michigan?
EPA	United States Environmental Protection Agency
HWSA	Hazardous and Solid Waste Amendments of 1984
Part 111	Part 111, Hazardous Waste Management, of Act 451
Part 111 Rules	Administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Act 451
R	Rule (example: R 299.9504)

FORM EQP5111 ATTACHMENT TEMPLATE MODULE A.3

GENERAL INFORMATION: WASTE ANALYSIS PLAN (WAP)

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), Rules (R) 299.9504(i)(c), R 299.9508, and R 299.9605(i), and Title 40 of the Code of Federal Regulations (40 CFR) 270.14(b)(3) and 264.13(b) and (c), which are adopted by reference (ABR) in R 299.11003, establish requirements for WAPs for hazardous waste management facilities. This license application module addresses requirements for a WAP for the hazardous waste management units and the hazardous waste management facility for the US Ecology Michigan, Inc., hereafter referred to as USE-DN, facility. All activities associated with the WAP will be conducted at the USE-DN, 6520 Georgia Street, Detroit, Michigan facility.
This module is organized as follows:

3.A COMMERCIAL FACILITY

3.A(1) Initial Waste Characterization Requirements for Generators

- 3.A(1)(a) Generator Waste Characterization Discrepancies
- 3.A(1)(b) Subsequent Waste Shipment Procedures
- 3.A(1)(c) Additional Waste Analysis Requirements

3.A(2) Waste Acceptance Procedures

- 3.A(2)(a) Review Paperwork
- 3.A(2)(b) Visual Inspection of the Waste and Containers
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- 3.A(2)(d) Quality Assurance Manual
- 3.A(2)(e) Disposition of Waste Shipments Accepted into the Container Management Facility, Building 4, Building 5A, and Building 5B
- 3.A(2)(f) Waste Treatment Technologies

3.A(3) Procedures to Ensure Compliance with Land Disposal Restriction (LDR) Requirements

- 3.A(3)(a) Spent Solvent and Dioxin Wastes
- 3.A(3)(b) Listed Wastes
- 3.A(3)(c) Characteristic Wastes
- 3.A(3)(d) Radioactive Mixed Waste
- 3.A(3)(e) Leachates
- 3.A(3)(f) Laboratory Packs
- 3.A(3)(g) Contaminated Debris
- 3.A(3)(h) Waste Mixtures and Wastes with Overlapping Requirements
- 3.A(3)(i) Dilution and Aggregation of Wastes

3.B CAPTIVE FACILITY

3.C NOTIFICATION, CERTIFICATION, AND RECORDKEEPING REQUIREMENTS

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3.A COMMERCIAL FACILITY

US Ecology Michigan, Inc., hereafter referred to as USE-DN, is a commercial facility that receives wastes generated off-site. *USE-DN* has developed a WAP to ensure that its facility at 6520 Georgia Street, Detroit, Michigan, will accept only wastes that it is authorized to accept and fully complies with 40 CFR Part 264 and 268. The hazardous wastes stored and treated at USE-DN will be properly characterized prior to waste acceptance. All generators will be required to provide a complete waste characterization, including chemical analysis when appropriate. Waste screening will be conducted on every shipment of waste to ensure that the waste conforms to the waste profile and the information on incoming manifests, and to ensure that the waste is properly managed within the facility.

All analysis performed pursuant to this application will be consistent with the Quality Assurance Manual (QAM) included in this Module Section 3.A(2)(d). All samples for the purpose of waste characterization will be collected, transported, stored, and disposed of by trained and qualified individuals in accordance with the QAM.

In accordance with R 299.9609 and 40 CFR 264.73 and 264, Appendix I, which are ABR in R 299.11003, USE-DN will retain all records and results of waste determinations performed as specified in 40 CFR 264.13, 264.17, 264.314, 264.1034, 24.1063, 264.1083, 268.4(a), and 268.7 in the facility operating record for the required timeframe.

3.A(1) Initial Waste Characterization Requirements for Generators

{R 299.9605(1), R 299.9504(1)(c), and 40 CFR 264.13(b)(5), which are ABR in R 299.11003}

Off-Site Generated Wastes

USE-DN requires the following waste profile information for initial waste shipments from all off-site generators prior to shipment:

In addition to the waste profile information submitted by the generator, USE-DN will:

☐ Require submittal of a representative waste sample

☐ Conduct an audit of the generator facility

☐ Review industry literature to identify typical waste streams

☒ Other: Representative samples are reviewed on an as needed basis.

The waste approval process begins with a review of the waste characterization information prepared and submitted by the generator. The person that generates a solid waste, as defined in 40 CFR 261.2, must make an accurate determination as to whether that waste is a hazardous waste to ensure that waste is properly managed in accordance with the applicable Resource Conservation and Recovery Act of 1976, as amended (RCRA), regulations. To assist generators in complying with the requirements and to ensure that physical and chemical information is obtained, USE-DN requires the formal submittal of this waste characterization information. Per the requirements of 40 CFR 262.11, USE-DN will require the following

information for initial waste shipments from all off-site generators and for on-site generated wastes prior to processing of that waste:

Generator Information:

- Generator Name
- United States Environmental Protection Agency (EPA) ID Number
- Address
- Contact Information – Phone Number

Waste Description:

- A hazardous waste determination for each solid waste at the point of waste generation, before any dilution, mixing, or other alteration of the waste occurs, and at any time in the course of its management that it has, or may have, changed its properties as a result of exposure to the environment or other factors that may change the properties of the waste such that the classification of the waste, under RCRA, may change.
- A determination on the applicability of listed hazardous waste codes using knowledge of the waste to determine if the waste meets Subpart D of 40 CFR, Part 261.
- A determination if the waste exhibits one or more hazardous waste characteristics.

Identification of Exclusions and Exemptions:

- Materials excluded from the definition of solid waste.
- Solid waste excluded from the definition of hazardous waste.
- Hazardous waste that is exempt from Subtitle C regulations.

Land Disposal Restrictions:

Generators must determine if their waste is subject to Land Disposal Restrictions (LDRs) for each hazardous waste at the point of generation.

Generator Certification:

The written or electronic signature of the person authorized to make waste characterization decisions certifying that the information being provided is representative of the waste, is true, and is accurate.

For the purposes of compliance with 40 CFR, Part 268, or if the waste is not listed in Subpart D of 40 CFR, Part 261 (R 299.9213), per 40 CFR 262.11, the generators must determine whether their waste is identified in Subpart C of 40 CFR Part 261 (R 299.9212) by either:

Testing the representative samples of the waste according to the methods set forth in Subpart C of 40 CFR, Part 261, or according to an equivalent or recognized laboratory method.

Acceptable knowledge that may be used as part of the basis for acceptable knowledge include but are not limited to: waste origin, composition, feedstock, knowledge of products, by-products, and intermediates produced by the manufacturing process; material balances for the source or process generating the hazardous waste; chemical and physical properties of chemicals used or produced by the process or otherwise

contained in the waste, constituent-specific chemical test data for the hazardous waste from previous testing that are still applicable to the current waste; previous test data for other locations managing the same type of waste; knowledge based on information included in manifests, shipping papers, waste certification notices, and Safety Data Sheets (SDS); or other reliable and relevant information.

The waste characterization information as described above provides USE-DN with adequate detail to determine if the waste can be received for storage and trans-shipment or treatment at its facility. A unique profile identification number is assigned to each waste stream along with a handling method that identifies the treatment(s) required (if any).

If a generator provides insufficient information for determination, they will be contacted to obtain any additional information needed for the profile approval process to continue. Representative samples may be requested to further evaluate the waste and verify information provided by the generator but are not routinely required.

Examples of forms currently used to document this information can be found in Figure A3-5 (Waste Approval Profile Form). These forms are subject to change and equivalent forms will be used when revised. The revised forms will be submitted to the Michigan Department of Environment, Great Lakes, and Energy (EGLE) in conformance with the minor modification requirements of Part 111 of Act 451.

On-site Generated Wastes

Housekeeping, maintenance, laboratory, and waste processing activities often result in the on-site generation of waste. Waste generated at the facility is evaluated in the same manner as off-site waste utilizing procedures provided in the sections above. Laboratory reports and waste characterizations are maintained at the facility as part of its operating record. Hazardous waste generated at the facility is also reported to EGLE as part of the facility operating report in accordance with R 610(3).

Samples collected for the purposes of on-site waste characterization are collected, analyzed, stored, and disposed of by trained and qualified individuals in accordance with the QAM. The QAM includes written procedures outlined in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 Compendium.

3.A(1)(a) Generator Waste Characterization Discrepancies
{R 299.9605(1), R 299.9504(1)(c), and 40 CFR 264.13(a)(3) and (4), 264.13(b)(c), and 264.72, which are ABR in R 299.11003}

The waste characterization information as described in 3.A(1) provides USE-DN with adequate detail to determine if the waste can be received for storage and trans-shipment or treatment at its facility. A unique profile identification number is assigned to each waste stream along with a handling method that identifies the treatment(s) required (if any).

If a generator provides incomplete information for determination, they will be contacted to obtain any additional information needed for the profile approval process to continue. Representative samples may be requested to further evaluate the waste and verify information provided by the generator but are not routinely required.

A waste profile re-certification for each unique waste stream is obtained from generators beginning 12 months, and no later than 18 months, from the approved date of the initial waste profile. A new certification will be obtained from the generator upon notification by the generator of a change in the generating process, material, or other change affecting the characteristics of the waste. A copy of the re-certification shall be placed in the profile record for each unique waste.

During the fingerprint screening of received waste, a comparison of physical properties is made between the received waste and the waste characterization documents provided by the generator. It is common to observe some minor variation of the physical properties of a waste stream due to the natural variation of the source processes. When the properties fall outside of this expected variation, a discrepancy is observed that is inconsistent with the waste profile on record and additional review will take place before the waste is accepted.

Examples of excessive variation include:

- Measured pH values that exceed +/- 2 scientific units outside the expected results
- Unexpected phasing of liquid
- Presence of solids when not indicated
- A water white liquid that shows significant coloring

When discrepant wastes are observed, the generator will be contacted to provide resolution. Potential resolutions include:

- A revised profile and generator re-certification
- A new approval and certification representing the discrepant stream
- Partial or full rejection of the discrepant waste to the generator
- Partial or full rejection of the discrepant waste to an alternate treatment, storage, and disposal facility (TSDF)
- Maintain discrepant manifest in accordance with manifest retention requirements

Table A3-5a (Sampling and Analytical Methods and Waste Characterization) lists the hazardous wastes treated or stored at the facility, the applicable analytical parameters, and the rationale for their selection.

All shipments arriving on-site will be visually inspected. The visual inspection is the first step in the fingerprint process. The intent of the visual is to identify any obvious discrepancies such as unidentified liquids or other physical properties. Manifest discrepancies are resolved, if possible, by contacting the generator or its representative to obtain the needed information. There are cases where entire loads or portions of loads may be rejected (e.g., a bulk load contains un-profiled materials). The exact manifesting procedures will be determined considering the variables associated with any particular rejection, but, in general, the following is a summary of the typical considerations associated with rejecting materials.

Two options are available for rejecting some or all of a load. The first option includes sending material out on the original manifest noting that the load is being rejected back to the point of origination or the alternate facility designated on the manifest, or verbally designated by the generator. A second option is to generate a new manifest. This option is often useful for bulk loads for which a portion is being rejected in containers (e.g.; aerosol cans removed from a bulk

load may be sent back to the generator packaged in Department of Transportation (DOT) shipping containers) and for rejecting or forwarding on a portion of a container shipment.

3.A(1)(b) Subsequent Waste Shipment Procedures
{R 299.9605(1), R 299.9504(1)(c), and 40 CFR 264.13(a)(3) and 264.13(b)(4), which are ABR in R 299.11003}

A waste profile re-certification for each unique waste stream is obtained from generators beginning 12 months, and no later than 18 months, from the approved date of the initial waste profile. A new certification will be obtained from the generator upon notification by the generator of a change in the generating process, material, or other change affecting the characteristics of the waste. A copy of the re-certification shall be placed in the profile record for each unique waste.

For subsequent shipments of an approved waste, a review process will occur, as identified at Section 3.A(2), Waste Acceptance Procedures, to validate that the received waste shipment is consistent with the current waste approval documentation.

3.A(1)(c) Additional Waste Analysis Requirements
{R 299.9605(1), R 299.9504(1)(c), and 40 CFR 264.13(b)(6) and 40 CFR 264.13(c (3), which are ABR in R 299.11003}

USE-DN will review the waste profile information to ensure that the facility is authorized to receive the waste and can manage the waste in compliance with the following:

☒	R 299.9605 and 40 CFR 264.17	General requirements for ignitable, reactive, or incompatible wastes. [See Below]
☒	R 299.9605 and 40 CFR 264.314	Special requirements for bulk and containerized liquids. [See Below]
☐	R 299.9630 and 40 CFR 264.1034(d)	Test methods and procedures (Subpart AA) [Module 3, Section 3.A(2)(c)]
☒	R 299.9631 and 40 CFR 264.1063(d)	Test methods and procedures (Subpart BB) [See Below]
☒	40 CFR 264.1083	Waste determination procedures (Subpart CC) [See Below]
☒	R 299.9627 and 40 CFR 268.7	Waste analysis and record keeping (LDR) requirement [Module A3, Sections 3.A(3), 3.B(3), and 3.C]
☒	R 299.9228	Universal waste requirements. No testing is required to be performed by USE-DN since all universal waste is sent off-site for recycling.

Additional Requirements for Ignitable, Reactive, or Incompatible Wastes [40 CFR 264.13(b)(6) and 40 CFR 264.17]

During the initial profile review, Table A2-1 (Hazardous Waste Accepted - Treatment Facility), Table A2-2 (Hazardous Wastes Accepted - Container Management Facility), and Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B) will be consulted to confirm that the facility can receive the identified waste materials. USE-DN will review the waste profile information to ensure that the facility is authorized to receive the waste, in accordance with the following requirements:

- Ignitable, reactive, and incompatible waste.
- RCRA waste with greater than 500 parts per million (ppm) volatile organic compounds (VOC) bearing waste.
- RCRA waste with greater 10 percent organic carbon.
- Universal waste.

No ignitable and/or reactive wastes are acceptable for treatment in the wastewater treatment facility. See Table A2-1 (Hazardous Waste Accepted - Treatment Facility). Ignitable and/or reactive waste are acceptable for storage in the Container Management Facility (CMF), [see Table A2-2 (Hazardous Wastes Accepted - Container Management Facility)], Building Four, Building 5A, and Building 5B [see Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B)].

USE-DN takes precautions to prevent the accidental ignition or reaction of ignitable or reactive waste per the requirements of 40 CFR 264.17. This waste must be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting, welding hot surfaces, frictional heat, sparks, spontaneous ignition, and radiant heat.

During treatment, storage, or disposal of ignitable or reactive wastes, or the mixing of reactive or incompatible wastes, USE-DN will take precautions to prevent reactions which:

- Generate extreme heat or pressure, fire or explosions, or violent reactions.
- Produce uncontrolled toxic mists, fumes, or gasses in sufficient quantities to threaten human health or the environment.
- Produce uncontrolled flammable fumes or gasses in sufficient quantities to threaten human health or the environment.
- Damage the structural integrity of the device or facility.
- Through other means threaten human health or the environment.

USE-DN will document compliance with these requirements through references to published literature, data from test trials (e.g., treatability studies), waste analysis, or the results from similar treatment processes under similar conditions.

Special Requirements for Bulk and Containerized Liquids [R 299.9605 and 40 CFR 264.314]

USE-DN does not send waste containing free liquids to landfill for disposal. Liquid waste or wastes that contain free liquids are either sent off-site for additional treatment and/or disposal or are processed through the on-site wastewater treatment process. Process residuals from wastewater treatment, non-hazardous waste solidification, or chemical stabilization processes will be evaluated as needed using the Paint Filter Liquid Test, as described in EPA SW-846, to confirm that no free liquids are present.

Test Methods and Procedures (Subpart BB) [40 CFR 264.1063(d)]

USE-DN requires generators to complete the Waste Approval Profile Form (WAF) [Figure A3-5] to disclose information regarding waste characteristics, including organics content. This form requires that generator knowledge and/or the methods of EPA SW-846 be used to analyze the waste. This WAF requires a detailed composition and generating process of the waste stream that is being described in the WAF. This information is evaluated to establish the organic concentration of the waste stream. Additionally, an addendum to the WAF specifically addresses organic content of the waste stream. If the generator cannot provide sufficient information to document the organic concentration of the waste, analytical confirmation will be required. This determination is confirmed annually or when a waste stream undergoes a process change or change in raw materials.

USE-DN does not accept hazardous waste for treatment with an organics concentration of 10 percent or greater by weight. Containers of Subpart BB waste are acceptable in the CMF.

Further information regarding Subpart AA, BB, and CC can be found at the end of this plan.

Waste Determination Procedures (Subpart CC) [40 CFR 264.1083]

As part of the waste approval process, generators are required to document if each waste stream contains volatile organic concentrations that equal or exceed 500 parts per million by weight (ppmw). The approval file and/or any succeeding re-certifications or revisions are maintained in the facility record. Direct measurement data from the point of origination may be used or knowledge of the waste as documented by material balances from the source or process generating the waste, constituent specific chemical test data for the hazardous waste from applicable previous testing, previous test data from other locations managing the same type of waste, or other knowledge based on information included in manifests, shipping papers, or waste certification notices.

Containers of Subpart CC waste are acceptable in the CMF and are subject to Level 1 and 2 container controls. However, the wastewater treatment plant and the Building 4 Stabilization Facility do not have the necessary controls in place to treat waste subject to Subpart CC controls. Therefore, wastes with greater than 500 ppmw concentration of VOCs are not accepted by USE-DN for treatment.

Further information regarding Subpart AA, BB, and CC can be found at the end of this plan.

3.A(2) Waste Acceptance Procedures
{R 299.9605(1), R 299.9504(1)(c), and 40 CFR 264.13(c), 264.72(a) and (b), and 264.73(b), which are ABR in R 299.11003}

Waste shipments arrive at the facility in the following containers:

☒	Drums	☒	Totes
☒	Carboys	☒	Wrangler box
☒	Roll-off boxes	☒	Vacuum trucks
☒	Tanker trucks	☒	Filter bags

☒ Other: Dump trailers and other United Nations rated/approved containers (i.e., cylinder, consumer commodity packaging, over pack, vacuum box, etc.)

Upon receipt of wastes from an off-site generator, USE-DN will perform all of the following tasks:

- Review paperwork.
- Visually inspect the waste.
- Perform waste screening/fingerprint analysis of waste.

These tasks are discussed below.

3.A(2)(a) Review Paperwork
{R 299.9605(1), R 299.9504(1)(c), and 40 CFR 264.13(c), 264.72(a) and (b), and 264.73(b), which are ABR in R 299.11003}

USE-DN will review all paperwork, including manifests and LDR notifications, before any wastes are accepted by the facility. USE-DN will review all paperwork for completeness. In addition, the LDR notification and manifest will be compared for consistency. The manifest will also be compared to the waste profile and analytical information provided by the generator and to the waste shipment itself, to ensure the accuracy of information provided on shipment paperwork. The manifest will also be compared to the number of containers, the volume, and/or the weight of the waste in the shipment. All discrepancies will be resolved and documented before processing the waste.

Shipment Screening [40 CFR 264.13 (a) (4)]

USE-DN inspects each shipment of hazardous waste from off-site generators to verify that it matches the identity of the waste(s) specified on the manifest and shipping document. The objectives of the screening process are to:

- Identify restricted wastes that cannot be accepted.
- Identify incompatible, ignitable, or reactive wastes.

- Ensure the matching of waste shipment identity with waste approval information.
- Ensure compliance with the facility's applicable permits.
- Ensure the safe operation of the facility.

Shipment screening includes:

- Checking the completeness and correctness of the manifest.
- Visually inspecting the shipment and comparing it with the characterization information on file.

The following records are accessible and readily available to all operating personnel who are responsible for inspecting and unloading incoming shipments of hazardous waste:

- A copy of the waste fingerprint report for each waste stream.
- Waste Profile.
- USE-DN's WAP.

Completeness of Manifest

The waste manifest is reviewed to ensure that it is accurate and complete. At a minimum, the following information must be on each manifest:

- The generator's name, mailing address, and EPA ID number.
- Each transporter's name and EPA ID number.
- The destination of the waste shipment including address and EPA ID number.
- A DOT shipping name and number.
- The quantity or volume of waste in the shipment along with the appropriate waste code(s).
- The name, signature, and date signed for the generator/offeror with certification of shipment's content.
- The name, signature, and date signed for each transporter.

Discrepancies noted during this review will prevent treatment or disposal of the waste unless additional information is provided by the generator to resolve.

3.A(2)(b) Visual Inspection of the Waste and Containers
{R 299.9605(1), R 299.9504(1)(c), and 40 CFR 264.13(c), which are ABR in R 299.11003}

USE-DN will visually inspect 100 percent of the containers from each shipment from each generator, for each waste stream. Each shipment is visually inspected to determine if:

- The number and type of containers and total quantity match the manifest.
- The container labels are correct.
- There are any irregularities with the shipment (e.g., leaking, bulging, or corroding containers).
- The containers are closed, and the closure mechanism is intact.

In some circumstances, waste screening/fingerprinting procedures may not be necessary in order to verify the waste matches the pre-approval information. For wastes from which no samples will be taken, a visual inspection will be performed to determine if the waste resembles the description provided in the approval. Waste streams that may cause an air quality or safety concern, such as the examples provided below, will not be opened for visual inspection.

- Articles, equipment, and clothing (such as personal protective equipment [PPE]) contaminated with chemicals.
- Empty containers which once held waste, commercial chemical products, or chemicals (small tanks, containers, bags, boxes, liners, cans, pails, etc.). Containers are considered empty according to the criteria specified in R 299.9207.
- Asbestos-containing waste from cleaning or demolition activities that is properly bagged/containerized.
- Spent activated carbon filters from inside tanks, ion-exchange resins, molecular sieves, filters/cartridges.
- Hazardous contaminated debris and demolition wastes (40 CFR 268).
- Chemical-containing devices/articles, such as cathode ray tubes (CRTs), fluorescent lights, and batteries.
- Broken CRTs and fluorescent lights that have not been mixed with any other waste.
- Discarded, off-specification, or outdated commercial products. An SDS will be provided or made available for review when requested.
- Wastes from food or animal processing.
- Animal feces.
- Selected wastes from medical, veterinarian, taxidermy, or mortuary facilities.
- Septage or sewer treatment plant sludge from domestic users.
- Tanks (whole or cut).
- Debris and demolition wastes.
- Lab pack chemicals in jars, bottles, cans, etc.
- Equipment, machinery, pumps, piping, etc.
- Waste potentially capable of causing detectable odor at the facility property line.
- Waste that by its hazardous nature may require more protective PPE. Examples include but are not limited to beryllium, hydrofluoric acid, and arsenic pentoxide.
- Physically impossible to sample waste.
- Waste streams approved by EGLE on a case-by-case basis.

For wastes from which no samples will be taken prior to acceptance, a visual inspection will be performed to determine if the waste resembles the description provided in the approval documents. Double contained asbestos waste will not be opened for visual inspection.

However, during the pre-approval process, the generator must verify that the asbestos contains no free liquids on the Waste Approval Profile File for that waste stream.

3.A(2)(c) Waste Screening/Fingerprinting

{R 299.9605(1), R 299.9504(1)(c), and 40 CFR 264.13(b)(1-4) and 264.13(c)(2), which are ABR in R 299.11003}

Table A3-5 (Sampling and Analytical Methods and Waste Characterization), Table A3-5c (Analytical Parameters for Filter Cake Residuals, Table A3-5d (Fingerprint Parameters for Acceptance), and the WAF (Figure A3-5) list the waste analysis procedures, including screening parameters, the rationale for the selection of these parameters, test methods, the appropriate reference, and whether the waste is specified in R 299.9216. USE-DN will evaluate all hazardous waste stored and treated to determine the analytical parameters that apply to each waste.

Sampling Methods [40 CFR 264.13 (b)]

The physical state of the waste will determine the sampling methods that will be used to obtain a representative sample of the waste for waste screening or analysis. The sampling equipment and rationale are summarized in the table below:

EPA SW-846 methods will be followed whenever possible. If a method is not provided in EPA SW-846, then an alternate method will be used. Equipment used in the collection of waste samples will either be disposable or sufficiently cleaned to remove observable contamination prior to use. The sampling equipment is constructed of non-reactive materials. Waste sampling will be completed by trained personnel.

Examples of Sampling Methods

Container Type or Material	Sampling Method[1]	Sampling Equipment	Rationale
Aqueous Waste	SW-846	Thieves Coliwasas	Chapter Nine of the EPA SW-846 Compendium: Sampling Plans
Solid, sludge, granular	SW-846	Trier Scoops	

A composite liquid waste sampler (COLIWASA) is a glass, plastic, or metal tube with an end closure that can be opened and closed while the tube is submerged (See Figure A3-1 [Composite Liquid Waste Sampler (COLIWASA)]). The COLIWASA is useful for sampling free flowing liquids, slurries, and wastes that consist of several immiscible liquid phases. The COLIWASA is lowered into the waste at a rate slow enough to permit the level of liquid inside and outside the sampler to remain the same. When the sampler hits the bottom, the stopper is closed. In this manner, a sample will be obtained that is representative of the entire depth of the waste.

A thief consists of two slotted concentric tubes usually made of stainless steel, brass, or plastic (see Figure A3-3 [Thief Sampler]). The outer tube has a conical pointed top which permits the sampler to penetrate the material being sampled. The inner tube is rotated to open and close the sampler. A thief can be used to sample dry granules or powdered wastes whose particle diameter is less than one third the width of the slots.

A trier consists of a tube cut in half lengthwise with a sharpened tip that allows the sampler to get into sticky solids (i.e., filter cake) and loose soil (see Figure A3-4 [Sampling Triers]). The trier is then rotated to cut a core of the waste. A trier can be used to sample moist and sticky solids that have a particle diameter less than one half the diameter of the trier.

Fingerprint Screening

The fingerprint process is normally completed by the next business day from the time the hazardous waste was off-loaded. The results of the waste screening/fingerprint analysis will be compared to the waste profile information and analytical results provided by the generator during the initial waste characterization process. The outside container of inner laboratory pack containers will be 100 percent visually inspected. All discrepancies will be resolved before processing the waste. Discrepancies and their resolution are discussed in Section 3.A(1)(a) of this Module.

The following records are accessible and readily available to all operating personnel who are responsible for inspecting and unloading incoming shipments of hazardous waste:

- A copy of the waste fingerprint report for each waste stream.
- Waste Profile
- USE-DN's WAP.

USE-DN will sample for fingerprint at least 10 percent of the containers from each approved waste stream per shipment, rounded to the highest whole number. USE-DN may choose to sample up to 100 percent of the containers depending on initial review. Each multi-container shipment of an approved waste stream from a generator will be evaluated for homogeneity by comparing individual container samples, from those containers sampled, for consistency of fingerprint screening results and any analytical data collected. Exceptions from sampling requirements are identified in Section 3.A(2)(b). In these cases, visual inspection of the containers and contents will be performed where possible. The samples from all shipments will be evaluated for the following at a minimum:

☒ Color

☒ Physical state

☒ pH

☒ Consistency

☒ Other: Multiple Phases

Frequency of Sampling Bulk Waste Accepted at the Wastewater Treatment Plant

Each bulk tanker is sampled upon arrival at the facility and when approved are placed into permitted treatment or storage tanks. Bulk tankers are sampled in a manner which ensures that the samples are representative. A COLIWASA will be used to sample non-homogeneous or stratified liquid and homogenous or completely mixed liquids. See Figure A3-5 for the WAF.

In addition to the general waste characterization procedures outlined above, wastes which are accepted for treatment at USE-DN are subjected to fingerprint screening. Wastes are evaluated for specific waste verification parameters as described below.

Physical Appearance: The appearance of the shipment sample, as determined by visual inspection, is compared with that of the representative sample material including: color, phase separation, and suspended and settled solids.

pH: pH of the shipment sample is compared to the representative sample and/or the waste characterization analysis. pH is determined by using a calibrated pH meter in accordance with Method 9040 of EPA SW-846 or by using litmus paper sensitive to 0.5 pH units.

Other analyses: Additional waste verification parameters are required for proper waste characterization. They include the following:

Parameter	Criteria	Evaluation method
Organic content	No uncharacteristic phase separation	Visual
Solids content	Comparison to Waste Approval Form	Visual
Pumpability	Consistent with Waste Approval Form	Visual – stir test

For wastes identified with VOCs and/or organic constituents destined for wastewater treatment, the headspace above the sample will also be evaluated for volatile compounds using a portable instrument. Waste headspace that indicates elevated levels of VOCs (approaching 500 ppm) will be further reviewed to verify if the waste is subject to Subpart CC standards.

Once an incoming waste stream has successfully passed the fingerprint screening it will be accepted for receipt into the wastewater treatment plant. From this point the incoming waste stream will be typically handled in one of the following methods:

- Unloading into one of four primary treatment tanks for batch treatment. These treatment activities are described in full in Module C2.
- Unloading into an appropriate waste storage tank for storage and moved into primary treatment at a later time.
- Unloading into an appropriate waste storage tank for storage prior to trans-ship to another TSDF.
- Upon receipt the waste stream may remain on the transport vehicle and the waste stream re-manifested with USE-DN as the generator of record and trans-shipped to another TSDF.
- Transport unit remains loaded and is placed into temporary storage in Building 5B until treatment or trans-ship.

A large majority of waste streams received at the wastewater treatment plant are received directly into the primary treatment without storage. The other dispositions described above are utilized infrequently but there are conditions where the other handling methods are favorable to the operation of the treatment plant. Disposition of inbound waste streams is predetermined but situations may arise that could change this disposition. Listed waste is often stored or scheduled for treatment in one batch for waste minimization purposes. In the unlikely event there is a treatment plant upset and treatment batches must be retreated, loads previously scheduled for treatment may need to be stored or trans-shipped to another facility for treatment. Labor shortage, reagent shortage, loss of utilities, and customer emergencies may affect the predetermined disposition of the waste stream. These are a few of the examples of the reasons why there are multiple dispositions.

Frequency of Sampling Container Wastes Accepted at the Container Management Facility, Building 4, Proposed Building 5A, and Building 5B

Randomly selected containers from a waste shipment are sampled and fingerprinted to confirm waste characteristics and criteria found in Table A3-2 (Chemical Characterization Hierarchy) and Table A3-3 (Compatibility Matrix for Waste Storage Within Bays) of this section. The frequency of sampling is based upon the following criterion: at least 10 percent of all containers per approved waste stream, per generator, and per shipment.

For each container sampled, a single sample that represents the entire depth of the container along its axis is obtained. Equipment used for sampling containerized waste include COLIWASA, thief, or trier.

Lab packs are carefully packed at the generator's facility and contain multiple containers of off-specification or obsolete lab chemicals. To be placed in a lab pack the smaller containers must be chemically compatible with one another and must be separated from each other with a compatible absorbent material that is capable of absorbing 100% of the largest container within the outer lab pack container. An inventory of the wastes put into each lab pack is created at the time of packing, and this inventory is used to screen the waste.

3.A(2)(d) Quality Assurance Manual

The determination of waste characteristics for inbound and outbound hazardous waste shipments is subject to the US Ecology QAM for US Ecology Laboratories. The elements of this program are as outlined in the US Ecology QAM. A copy of the current version (Revision 2.0) of the QAM is located in Appendix A3-2 (Quality Assurance Manual (QAM) US Ecology Laboratories) and has an effective date of February 1, 2019.

The purpose of this QAM is to outline the management system for US Ecology Laboratories. The QAM defines the policies, procedures, and documentation that assure analytical services continually meet a defined standard of quality that is designed to provide clients with data of known and documented quality and, where applicable, demonstrate regulatory compliance.

The QAM sets the standard under which all laboratory operations are performed, including the laboratory's organization, objectives, and operating philosophy. The QAM has been prepared to assure compliance with the 2009 TNI (The NELAC Institute) Environmental Laboratory Sector Standard – Volume 1 – Management and Technical Requirements for Laboratories Performing Environmental Analysis (EL-V1-M1 through M7- ISO-2009). This standard is consistent with

ISO/IEC 17025:2005 requirements that are relevant to the scope of environmental testing services and thus, the laboratory operates a quality system in conformance with ISO/IEC 17025:2005(E). In addition, the policies and procedures outlined are compliant with the various accreditation and certification programs listed in Section 29 - Appendix E. In addition, the QAM has been prepared to be consistent with the following requirements:

- The SW846 Compendium (**https://www.epa.gov/hw-sw846/sw-846-compendium**)
- Clean Water Act (CWA) Compliance Monitoring (**https://www.epa.gov/compliance/clean-water-act-cwa-compliance-monitoringmonitoring**).

Program Goals

The goal of this Quality Assurance Program is to provide accurate and precise data on the physical and chemical properties of wastes so that the wastes are handled safely, treated effectively, and the facility is operated in full compliance with its permits. This is accomplished by ensuring that:

- Sampling equipment is new or cleaned prior to use.
- Samples are labeled for traceability.
- A Chain of Custody document, where applicable, is completed to accompany the samples to the analytical laboratory.
- The wastes are properly identified and characterized.
- Wastes which do not meet USE-DN's criteria are properly managed.

Sampling Programs

Designated personnel are trained to sample waste shipments. Attachment 3: Personnel Training Program, of this license, contains information on the training program.

Sampling of waste shipments are performed in accordance with methods in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods* (EPA, Office of Water and Waste Management, SW-846).

Fingerprint Screening Program

Fingerprint screening of incoming waste shipments is performed by trained USE-DN personnel to ensure that the waste matches the specific waste verification parameters as described in the waste fingerprint report.

Parameter	Rationale for Selection
Physical Description	Used to determine the general characteristics of the waste stream. This facilitates subjective comparison of the sample waste with prior descriptions. Personnel evaluate for color, general form, layering, and consistency.
pH Screen	Used to determine the corrosivity of a waste. pH is determined by using a calibrated pH meter in accordance with Method 9040 of EPA SW-846 or by using litmus paper sensitive to 0.5 pH units. Discrepant material exceeds +/- 2 scientific units.

Analysis Program

Waste characterization testing may be performed at one of the company's laboratories, a third party laboratory (equivalent to the one described in Appendix A3-2 [Quality Assurance Manual (QAM) US Ecology Laboratories]), or both depending on such factors as workload, matrix considerations, etc. All analytical tests are performed in accordance with *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, (EPA, Office of Water and Waste Management, SW-846) and within each laboratory's respective QAM and procedures to ensure that qualitative and quantitative elements produce as repeatable and accurate results as possible.

Data Evaluation

Analytical data is evaluated as part of the acceptance procedures for waste shipments. The data is compared to screening tests of previous shipment(s) of the waste stream, other samples of the same shipment, and to waste characterization data. Any discrepancies that cannot be attributed to normal sampling or laboratory variation will be investigated further. Discrepancies and their resolution are discussed in Section 3.A(1)(a) of this Module.

3.A(2)(e) Disposition of Waste Shipments Accepted into the Container Management Facility, Building 4, Building 5A, and Building 5B

Inbound materials for acceptance at the CMF, Building 4, Building 5A, and Building 5B can be received in bulk or non-bulk packaging. The following describes the typical disposition of inbound materials upon receipt at USE-DN. This discussion describes typical waste flow through the facility and does not describe every iteration possible in the handling of waste materials at the facility. Table A2-1 (Hazardous Waste Accepted - Treatment Facility), Table A2-2 (Hazardous Wastes Accepted - Container Management Facility), Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B), and Table A3-6 (Waste Codes and Disposition) define the storage/treatment restrictions applicable to USE-DN. Attachment 8: Containers, of this license, provides a more detailed description of segregation and compatibility of the container storage at USE-DN.

Container Management Facility

Once an incoming waste stream has successfully passed the fingerprint screening it can be accepted for receipt into the CMF. Wastes acceptable for receipt into the CMF are included in Table A2-2 (Hazardous Wastes Accepted - Container Management Facility) and Table A3-6 (Waste Codes and Disposition). Bulk waste may remain on the transportation equipment and be re-manifested with USE-DN as the generator to an off-site TSDF. Bulk waste may be placed into storage in Building 4, Building 5A, or Building 5B if the waste is not excluded by Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B), or Table A3-6 (Waste Codes and Disposition). While in storage, compatible waste may be consolidated prior to transfer to treatment in Building 4, transfer to other approved on-site storage, or shipment to an off-site TSDF.

Non-bulk containers included in Table A2-2 (Hazardous Wastes Accepted - Container Management Facility) and Table A3-6 (Waste Codes and Disposition) can be accepted into the CMF. The CMF is the primary, but not exclusive, facility for receipt of containerized inbound waste materials at USE-DN. Container loads of inbound waste materials may be a diverse mixture of containers destined for storage and/or, consolidation, and/or treatment at different areas of the USE-DN facility. The CMF receives this diverse variety of materials and serves to distribute these materials to the appropriate storage or process location adhering to the limitations defined in Table A2-1 (Hazardous Waste Accepted - Treatment Facility), Table A2-2 (Hazardous Wastes Accepted - Container Management Facility),
Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B), and Table A3-6 (Waste Codes and Disposition).

Building 4

When a containerized shipment is directly received at Building 4, fingerprinting will take place at Building 4 to avoid double-handling of containers. This waste storage is limited by the restrictions of Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B) and Table A3-6 (Waste Codes and Disposition). When the fingerprint screening is complete, the waste materials can be accepted for treatment in Building 4 or storage in accordance with the limitations of Table A2-2 (Hazardous Wastes Accepted - Container Management Facility)Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B) and Table A3-6 (Waste Codes and Disposition).

Building 5A

Similar to Building 4, waste bulk materials for storage may have already completed the fingerprint screening and are transferred from existing storage, or from the CMF, after successfully passing the fingerprint screening upon receipt. Non-bulk containerized waste is typically transferred from internal storage and has already passed the fingerprint screening. These wastes can be placed directly into storage. There are instances where an incoming containerized waste shipment may contain a majority, or all would be destined for receipt into Building 5A for storage. To avoid double-handling of containers, this load may be fingerprinted in Building 5A and accepted for storage at Building 5A. This waste storage is limited by the restrictions of Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B) and A3-6 (Waste Codes and Disposition). When the fingerprint screening is complete the waste materials can be accepted for storage in accordance with the limitations of

Table A2-2 (Hazardous Wastes Accepted - Container Management Facility), Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B), and Table A3-6 (Waste Codes and Disposition).

Building 5B

Materials stored in Building 5B are material transfers from waste that have already passed the fingerprint screening and have been accepted into the facility. Materials stored in Building 5B are waste contained in transportation related equipment.

Waste Storage Determination

Table A2-2 (Hazardous Wastes Accepted - Container Management Facility), Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B), and Table A3-6 (Waste Codes and Disposition) are the primary determining factor in the storage of waste types. A more detailed description of segregation and the management of storage containers is discussed in Attachment 8: Containers, of this license.

3.A(2)(f) Waste Treatment Technologies

USE-DN utilizes several different treatment technologies in order to meet the applicable LDR standard, or other standards as applicable. These technologies consist of those processes, which cause the material to pass applicable LDR standards or other applicable standard(s).

In this process, waste is treated to meet LDRs (e.g., elimination of free liquids, chemical and/or physical stabilization to remove or immobilize hazardous constituents, etc.) or to meet other appropriate requirements (e.g., permit or regulatory requirements). 40 CFR 268.42 provides specific definitions for several potentially distinct treatment technologies including Stabilization, Chemical Oxidation, Chemical Reduction, Deactivation, Neutralization, Adsorption, Precipitation, and Solidification.

Pre-treatment analyses consist of tests necessary to ensure the aggregated wastes are amenable to the same treatment and will destroy, remove, or stabilize constituents. Pre-treatment analyses also serve to verify the compatibility of the wastes as determined during initial waste acceptance process. Incoming hazardous liquids that require extra treatment (for example, adsorption of organics, oxidation of organics and cyanide or reduction of hexavalent chromium) are not aggregated with wastes which do not need this treatment. In-process analyses are generally not required. However, in-process analyses are performed for individual wastes that are mixtures of multiple contaminant types. These wastes are aggregated and treated sequentially. Documentation of in-process analysis demonstrating the efficiency of the different treatment steps (i.e. should show that the chemical oxidation step for organics works by collecting samples for organics before then treating for metals) will be maintained. This demonstration may be completed initially for a given waste stream and then repeated periodically, or if the waste stream changes. In the case of carbon absorption, organics are bound to the carbon and are removed in the filter press after metals precipitation. Post-treatment analyses are performed to ensure restricted wastes meet applicable treatment standards. Specific post treatment requirements, relating to wastes from the wastewater treatment plant, are detailed in Section 3.A(3) of this WAP.

The following technologies are utilized by USE-DN:

Chemical Oxidation

Chemical oxidation is a treatment process targeted primarily at organic constituents (e.g., toluene and benzene), but may be used for inorganic constituents as well (e.g., cyanides and heavy metals such as mercury). An organic or inorganic species is oxidized when its respective chemical oxidation number increases (i.e., loses electrons). The following oxidation reagents (or waste reagents) may be used in part or whole: (1) Hypochlorite (e.g. bleach), (2) chlorine, (3) chlorine dioxide, (4) ozone or UV (ultraviolet light) assisted ozone, (5) peroxides, (6) persulfates, (7) perchlorates, (8) permanganates, and/or (9) other oxidizing reagents of equivalent efficiency.

Chemical Reduction

Chemical reduction or redox occurs when the targeted component/constituent atoms change as a resultant transfer of electrons from one chemical species to another. The chemical oxidation number for the targeted components decrease (i.e., gains electrons) when the target constituents are reduced. Conversely, the reducing reagents used in this process lose electrons or become oxidized. The following reducing reagents (or waste reagents) may be used in whole or part: (1) sulfur dioxide; (2) sodium, potassium, (salts), or other alkali salts or sulfites, bisulfites, metabisulfites and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency.

Deactivation

Deactivation is the treatment of those wastes that exhibit the characteristics of ignitability, corrosivity, and/or reactivity. Appropriate use of this treatment technology is determined during the pre-acceptance process.

Neutralization

Neutralization is a treatment process designed to render corrosive matrices non-corrosive. According to 40 CFR 268.42, the following reagents (or waste reagents) in part, or whole, may be used for neutralization: (1) acids, (2) bases, or (3) water (including wastewater's) resulting in a pH greater than 2 but less than 12.5 measured in the aqueous residuals.

Precipitation

Precipitation is the process by which regulated metals and/or inorganics are precipitated out as insoluble precipitates of oxides, hydroxides, carbonates, sulfates, chlorides, fluorides, or phosphates. This process entails adjusting the pH of the waste matrix between 9 and 11. This pH range is ideal for hydroxide precipitation. An alternative to this common standard practice is sulfide precipitation. Sulfide precipitates are less soluble and non-amphoteric (less pH dependent than hydroxyl precipitates). However, caution must be employed to ensure hydrogen sulfide is not released at harmful levels by maintaining a pH greater than eight throughout the treatment process. Based on 40 CFR 268.42, the following reagents (or waste reagents) are typically used alone or in combination: (1) Lime (i.e., containing oxides and/or hydroxides of calcium and/or magnesium, (2) caustic (i.e., sodium and/or potassium hydroxides, (3) soda ash (i.e., sodium carbonate), (4) sodium sulfide, (5) ferric sulfate or ferric chloride, (6) alum, or (7) sodium sulfate. Additional flocculating, coagulation, or similar reagents/processes that pertain to precipitation are not precluded from use.

Adsorption

Adsorption is the use of an appropriate reagent (e.g. activated carbon or treated clay) to remove chemical components from aqueous or compressed gas waste streams. It is most commonly employed for the removal of organic compounds, although some inorganic constituents are effectively removed as well. This process is achieved through physical, chemical, and electrostatic interactions between the waste material and the adsorbent media. Pursuant with 40 CFR 268.42, total organic carbon can be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues.

Non-Hazardous Liquid Solidification

Liquid solidification is a process where an absorbent material (e.g. lime kiln dust, cement kiln dust, fly-ash) is added to liquid wastes to absorb the free liquids and generate a waste that can be sent to landfill as a solid waste. The paint filter test is one method used to determine the effectiveness of the solidification process.

3.A(3) Procedures to Ensure Compliance with Land Disposal Restriction (LDR) Requirements
{R299.9627 and 40 CFR Part 268, which are ABR in R 299.11003}

All shipments of wastes subject to LDR received at the facility will be accompanied by appropriate generator notification and LDR notification in accordance with R 299.9627 and 40 CFR 268.7, which are ABR in R 299.11003. The LDR notification accompanying generator wastes will be reviewed, and any discrepancies in the LDR notification and the associated manifest, analytical records, or waste profile sheet will require shipment rejection unless additional satisfactory clarifying information is provided by the generator. All information obtained to document LDR compliance will be maintained in the facility operating records until closure of the facility. Rejected wastes due to incomplete information/notifications are completed in accordance with 40 CFR 268 and Act 451.

Restricted Wastes Treated at the Wastewater Treatment Facility

All restricted waste streams which are treated at, or generated by, USE-DN, and are subject to LDR, will be handled in accordance with provisions of 40 CFR 268.

Applicable Treatment Standards

The effluents from the treatment of regulated wastes are not subject to LDRs because the treated effluent is discharged to the Detroit wastewater treatment plant in accordance with the domestic sewage exclusion of 40 CFR 261.4.

The sludges generated from the treatment of regulated wastes may be subject to LDRs. The treatment standards from these wastes are defined in subpart D of 40 CFR 268. The disposal of these sludges will be in accordance with all provisions of 40 CFR 268.

Waste Analysis Requirements – Residuals from Wastewater Treatment Process

Residuals Generated from Characteristic Wastes

Dewatered solids from the treatment of characteristic hazardous waste are managed as non-hazardous solids. Dewatered solids from the treatment of spent pickle liquor (K062) from the iron and steel industry {(SIC) codes 331 and 332} utilizing lime stabilization are exempt from the definition of a hazardous waste per 40 CFR 261.3(C)(2)(ii)(A) and can be disposed of as non-hazardous waste if the sludge is not characteristically hazardous. In both instances, these dewatered solids can be disposed of in a Subtitle D landfill. Generator knowledge and process confirmation analysis are utilized to support this determination that dewatered solids are non-hazardous. On a weekly basis, a grab sample of the dewatered solids (filter cake) are sampled utilizing a trier sampler as described in Figure A3-4 (Sampling Triers). The resulting sample is analyzed for any Toxicity Characteristic (TC) parameter and Underlying Hazardous Constituents (UHCs) accepted for treatment for the time interval from when the previous weeks process confirmation sample was retrieved to when the current process confirmation analysis sample is retrieved. Additionally, the document *Description of Wastewater Treatment Processes at USE-DN* describes the process that will be used to provide sufficient analytical data on the toxicity characteristic leaching procedure (TCLP) VOC/semi-volatile organic compounds content to demonstrate the filter cake generated from the treatment process has been de-characterized for these parameters.

Residuals Generated from Listed Wastes

Hazardous (listed) filter cake is generated from the treatment of wastewaters generated from processes that result in an F006 or F019 sludge (filter cake). Additionally, sludges (filter cake) generated from inbound listed waste codes: K061, K157, F006, U134, F019, and F039 are managed as hazardous waste. These resulting dewatered sludges are analyzed to determine the final disposition of the filter cake. Filter cake meeting treatment standards is sent for direct disposal to a Subtitle C Landfill. Sludges not meeting treatment standards are sent for further treatment prior to land disposal. Listed filter cake that is not analyzed is assumed to not meet treatment standards and is sent for treatment prior to land disposal.

Required analytical parameters for resulting filter cake sludges are outlined in Table A3-5c (Analytical Parameters for Filter Cake Residuals) for each listed waste received for treatment in the wastewater treatment plant. This analysis is done to determine the LDR status of the resulting filter cake. Residuals that do not meet the treatment standards are sent to an alternate treatment facility for further treatment prior to land disposal.

Aggregation of Similar Listed Wastes Versus Impermissible Dilution

Typically, with the exception of K157, listed wastes, for treatment in the wastewater treatment plant, are expected to contain similar contaminants and are typically treated together in batches resulting in a filter cake that is a homogenous mixture. K157 waste will be treated separately and residuals from the treatment of K157 will be sampled separately.

Justification for a Single Grab Sample from Residuals Roll-Off Boxes

The dewatered solids from the treatment of both listed hazardous waste and characteristically hazardous waste result in exceptionally homogeneous mixtures. There are several factors that

contribute to this quality. The most significant factor contributing to this homogeneous quality is the treatment process itself. A detailed explanation of the wastewater treatment process and the limiting factors associated with the treatment process are described in Module C2. The treatment process is the limiting factor on the characteristics of inbound waste that are acceptable for treatment. Typical waste suitable for treatment in the USE-DN wastewater treatment plant can be generically described as heavy metal impacted inorganic aqueous waste with a pH varying from extremely acidic to extremely caustic with only trace organic contamination. This limitation is reflected in Table A2-1 (Hazardous Waste Accepted - Treatment Facility) where only a small subset of waste codes is acceptable for treatment in comparison to the several hundred waste codes accepted for storage in Table A2-2 (Hazardous Wastes Accepted - Container Management Facility) and Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B).

Homogeneity is further increased by equalization during the treatment process. Equalization of waste streams may occur during both the primary and secondary treatment process. Waste mixing is also an important factor to increase the homogeneity of waste mixtures during the treatment process. The primary treatment tanks are equipped with air spargers that facilitate this waste mixing. Secondary treatment tanks are equipped with mechanical mixers. Effective waste mixing is of increased importance in the secondary treatment process as this is where metals are precipitated. The secondary treatment process is carried out by the addition of lime slurry or other alkaline solutions, and by thoroughly agitating the waste and reagent mixture with mechanical mixers which are present on the vessel. The process is concluded when the appropriate pH is obtained to precipitate the inorganic constituent. The lime or alkaline solutions that are added during the secondary treatment processes react with the heavy metals to form metal hydroxides, which are insoluble and will then precipitate from solution. Once precipitated, the heavy metals are no longer soluble in the aqueous phase, and the liquid portion does not exhibit hazardous waste characteristics. The precipitated heavy metal hydroxides are encapsulated and chemically fixed in a matrix of excess lime, iron hydroxide, and other inert, non-hazardous solid materials. The excess lime, which will remain in the solid state through subsequent processing and disposal, will stabilize the resulting de-watered sludge. All these factors were considered and support USE-DNs rationale of sampling and analysis based on a singular grab sample of the dewatered sludge. This rationale is also supported by historical sampling and analytical documentation maintained at the facility.

Certification Requirements

Certifications for all restricted wastes treated or generated by USE-DN will be done in accordance with requirements and restrictions of 40 CFR 268 and Act 451, R 299.9311.

In accordance with the LDR regulations, all wastes treated or generated will be analyzed, or generator knowledge will be used when appropriate, to determine whether the waste meets the applicable LDR treatment standards specified in R 299.9627 and 40 CFR 268.41-43, which are ABR in R 299.11003.

Storage Requirements

The influent wastes and treatment residuals are typically stored for the purpose of the accumulation of such quantities of hazardous wastes as necessary to facilitate proper treatment

and/or disposal. These wastes are not stored for more than one year. Treatment residuals are typically disposed of in less than 90 days.

Waste Analysis and Recordkeeping (40 CFR 268.7)

USE-DN maintains a copy of all notices, certifications, waste analysis data, and any other applicable documentation for treatment residues which are sent to off-site TSDFs. These files are kept for a minimum of five years.

LDR Notification

Any treatment facility which is to receive the wastes subject to LDRs is notified in writing of the treatment standards. Copies of the notice, an example of which is provided in Appendix A3-1 (Land Disposal Restriction & Certification Form), include the following:

- The EPA ID number.
- The corresponding treatment standard.
- Waste Approval Number.

Restricted Wastes Stored in the Container Management Facility, Building 4, Building 5A, and Building 5B

The CMF serves as a storage facility for containerized wastes from off-site generators. As such, USE-DN accepts a wide variety of listed and characteristically hazardous wastes for temporary storage. Refer to Table A2-2 (Hazardous Wastes Accepted - Container Management Facility) and Table A2-3 (Hazardous Wastes Accepted – Proposed Building 4, Building 5A & Building 5B) for list of acceptable waste codes.

Applicable Treatment Standards

All treatment standards for containerized waste stored in the CMF are codified in 40 CFR 268. Subpart D. The generator is responsible for providing a notice which lists the appropriate treatment standards for each waste shipment.

Waste Analysis Requirements and Recordkeeping

Proper waste characterization and notification pursuant to the requirements and restrictions of 40 CFR 268.7 is the responsibility of the generator. USE-DN maintains a copy of the notice and the waste analysis data required under 40 CFR 268.7 in the operating record. This file will be kept for a minimum of five years.

Storage Requirements

The containerized wastes are stored solely for the purpose of the accumulation of such quantities of hazardous wastes as necessary for treatment or disposal. These wastes are not stored for more than one year, without EGLE approval. All containers are clearly identified and labeled with storage start dates.

Certification Requirements

Certifications for all restricted wastes that are shipped from the USE-DN (CMF) to off-site TSDFs are done in accordance with requirements and restrictions of 40 CFR 268 and Act 451, R. 299.9311.

In accordance with the LDR regulations, all wastes shipped off-site will be analyzed, or generator knowledge will be used when appropriate, to determine whether the waste meets the applicable LDR treatment standards specified in R 299.9627 and 40 CFR 268.41-43, which are ABR in R 299.11003. All analytical results will be maintained in the facility operating record for five years. Wastes that are determined through analysis to meet treatment standards as specified in R 299.9627 and 40 CFR 268.41-43, which are ABR in R 299.11003, will be disposed of in methods approved by the above listed regulations.

USE-DN will supply LDR notifications and certification, including appropriate analytical records to support the certification, to the receiving facility with each initial shipment of waste and may be supplied with subsequent shipments. The notifications and certifications will contain the information required under R 299.9627 and 40 CFR 268.7, which is ABR in R 299.11003. Additional data obtained from the generators (e.g., waste profile sheets, original LDR notifications, analysis provided by generators) may be provided to the licensed TSDF where the waste will be sent if requested.

3.A(3)(a) Spent Solvent and Dioxin Wastes
{R 299.9627 and 40 CFR 264.13(a)(1), 268.7, 268.30, 268.31, 268.40, 268.41, 268.42, and 268.43, which are ABR in R 299.11003}

Spent Solvent Wastes (F001-F005) are accepted at the facility. Generator process knowledge will be used to determine the presence of spent solvent wastes (F001-F005). Generator process knowledge will be documented on the waste material profile report and LDR notification. The LDR notification will provide additional information regarding the appropriate treatment standards for the waste and whether it has already been treated to the appropriate standards.

Dioxin waste are accepted only for storage and eventual shipment to another TSDF. Dioxin waste are stored in specified bays within the CMF. All bays have secondary containment that meet or exceed the standards specified in 40 CFR 264.175. A detailed discussion of the CMF and the management of containers can be found in Module C1.

Containers that previously contained dioxin waste or any other acutely hazardous waste (i.e., all P-listed waste and other hazardous waste with the designated hazard code H) is empty when one of the following conditions is met:

- The container has an inner liner that prevents contact with the container and the liner is removed. (40 CRF 261.7(b)(3)(iii))
- The container has been triple rinsed with a solvent appropriate for removing the acutely hazardous waste. (40 CFR 261.7(b)(3)(i))
- When triple rinsing is inappropriate, an alternate method is used. (40 CFR 261.7(b)(3)(ii))

According to the mixture rule, the rinsate will be acutely hazardous waste and handled as such.

Any other characteristics that may be exhibited by spent solvent and dioxin wastes and listed wastes will be addressed as discussed in Sections 3.A(3)(b) and 3.A(3)(c) below.

3.A(3)(b) Listed Wastes

{R 299.9627, R 299.9213, and R 299.9214, and 40 CFR 264.13(a)(1), 268.7, 268.33, 268.34, 268.35, 268.36, 268.39, 268.40, 268.41, 268.42, 268.43, which are ABR in R 299.11003}

Generator process knowledge and/or analyses as needed, will be used to determine whether listed waste meets the applicable treatment standards or to demonstrate that the waste has been treated by the appropriate specified treatment technology. In accordance with R 299.9627 and 40 CFR 268.41, which are ABR in R 299.11003, where treatment standards are based on concentrations in the waste extract, the facility will use TCLP, or the facility will use total analysis as indicated in Table A3-5a (Sampling and Analytical Methods and Waste Characterization), to determine if wastes meet treatment standards. Materials accepted for trans-ship utilize the same characterization for outbound shipment that was utilized for acceptance into the facility. In the case of residuals from the wastewater treatment process, Table A3-5c (Analytical Parameters for Filter Cake Residuals) contains treatment standards and appropriate analytical methods. A more detailed discussion of this is contained in 3.A.(3) under the Waste Analysis Requirements header. Generator process knowledge will be documented on the waste material profile report and LDR notification.

3.A(3)(c) Characteristic Wastes

{R 299.9627, R 299.9208, and R 299.9212 and 40 CFR 261.3(d)(1), 264.13(a)(1), 268.7, 268.9, 268.37, 268.40, 268.41, 268.42, 268.43, and Part 268, Appendix I, and Appendix IX, which are ABR in R 299.11003}

Generator process knowledge and/or analyses as needed, will be used to determine whether characteristic wastes meet the applicable treatment standards or to demonstrate that the waste has been treated by the appropriate specified treatment technology. In accordance with R 299.9627 and 40 CFR 268.41, which are ABR in R 299.11003, where treatment standards are based on concentrations in the waste extract, generators shipping waste to the facility or the analysis indicated in Table A3-5, will determine if their wastes meet treatment standards. Materials accepted for trans-ship utilize the same characterization for outbound shipment that was utilized for acceptance into the facility. In the case of residuals from the wastewater treatment process, Table A3-5c (Analytical Parameters for Filter Cake Residuals) contains treatment standards and appropriate analytical methods. A more detailed discussion of this is contained in Section 3.A.(3) under the Waste Analysis Requirements header.

Characteristic D008 lead non-wastewaters and D004 arsenic non-wastewaters will be analyzed using TCLP to determine compliance with treatment standards of 40 CFR 268.40 and 268.48. If, after treatment, a hazardous waste displays a characteristic for the first time, the characteristic waste code will be added to the LDR notification and facility records. Wastes will be retreated, as appropriate, to meet the characteristic treatment standards of 40 CFR 268.40 and 268.48 prior to land disposal. In addition, the generator process knowledge will be used to identify the underlying hazardous constituents that are expected to be present in the waste. Generator process knowledge will be documented on the waste material profile report and LDR notification.

3.A(3)(d) Radioactive Mixed Waste
{R 299.9627 and 40 CFR 268.7, 268.35(c), 268.35(d), 268.36, and 268.42(d), which are ABR in R 299.11003}

☒ The facility does not accept radioactive mixed waste.

This prohibition also applies to low-level radioactive waste subject to regulation under the Atomic Energy Act of 1954, as amended.

3.A(3)(e) Leachates
{R 299.9627, 40 CFR 260.10, and 40 CFR 268.35(a) and 268.40, which are ABR in R 299.11003}

☒ Single-source leachate will not be combined to produce multi-source leachates.

USE-DN conducts an initial analysis of all regulated constituents in F039 leachates. Based on the results of the analysis and evaluation of historical analytical results, USE-DN may develop a reduced list of constituents to be monitored. Criteria to reduce the list of analytes would be a closed landfill where the characterization of the leachate has an established history (greater than four years) demonstrating that particular regulated constituents have not been present at a detectable level. This historical data, if available, would be provided by the generator of the F039 leachate. This data will become part of the waste approval and will be maintained at the facility. A complete analysis of all regulated constituents would be completed at least annually to confirm this determination. Residuals associated with F039 leachates are properly characterized prior to acceptance and transportation to other TSDFs for final disposal.

3.A(3)(f) Laboratory Packs
{R 299.9627 and 40 CFR 268.7, 268.42(c), and Part 268, Appendix IV and Appendix V, which are ABR in R 299.11003}

☒ The laboratory packs accepted at the facility are not land disposed.

Lab packs are accepted for treatment prior to land disposal. If a lab pack that contains hazardous waste is combined with non-lab pack hazardous waste prior to or during treatment, the entire mixture will be treated to meet the most stringent treatment standards for each waste constituent before being land disposed.

Lab packs, small containers of hazardous waste in over packed drums, are identified by a qualified representative during packing. Due to the number of individual containers and wastes which make up lab packs, the standard USE-DN waste characterization process is not practical. While on the generator's site, containers of the lab pack wastes to be packaged are verified and reviewed for chemical compatibility using DOT segregation information and through the use of established and/or published data. Upon completion of the lab pack segregation process, a detailed inventory of each over-pack drum is developed. The USE-DN representative certifies the accuracy of each lab pack inventory, and also ensures the following:

- Packaging the hazardous waste in non-leaking inside containers which are compatible with the wastes and are tightly and securely sealed.
- Using inside containers and over-packs that satisfy DOT hazardous materials regulations.

- Using adequate amount of compatible absorbent materials.
- Placing incompatible wastes in separate containers.
- Treating reactive wastes, other than cyanide or sulfide bearing wastes, prior to packaging.
- Sorting wastes into groups that can be disposed of in a similar manner.

3.A(3)(g) Contaminated Debris

{R 299.9627 and 40 CFR 268.2(g), 268.7, 268.9, 268.36, 268.45, and 270.13(n), which are ABR in R 299.11003}

☒ The hazardous debris categories and the contaminant categories associated with the types of hazardous debris are accepted at the facility.

Hazardous debris accepted at the facility is not treated at the facility, but is accepted and transported off-site to other TSDFs, therefore, immobilization techniques identified under 40 CFR 268.45 are not applicable.

3.A(3)(h) Waste Mixtures and Wastes with Overlapping Requirements

{R 299.9627 and 40 CFR 264.13(a), 268.7, 268.41(b), 268.43(b), and 268.45(a) which are ABR in R 299.11003}

Generator process information and analytical data will be used to demonstrate that those waste mixtures and wastes with multiple codes are properly characterized. Each waste that has more than one characteristic or a listed Reactivity Group Number will be identified with a number for each characteristic. Waste identified as meeting a listing and exhibiting a characteristic will be primarily identified with the listed waste code for the purpose of manifesting, etc.

3.A(3)(i) Dilution and Aggregation of Wastes

Listed wastes, if destined for land disposal, will not be diluted from the point of generation to the point of land disposal. Characteristic wastes will only be diluted if (1) the waste is managed in a CWA/CWA-equivalent surface unit or a Class I Safe Drinking Water Act injection well, (2) the waste has a concentration-based treatment standard or is treated using the DEACT technology-based treatment standard, and (3) the waste is not a D003 reactive waste.

The facility will not dilute or partially treat a listed waste to change its treatability category (i.e., from non-wastewater to wastewater), in order to comply with different treatment standards. If the wastes are all legitimately amenable to the same type of treatment to be performed, the facility may aggregate wastes for treatment.

3.B CAPTIVE FACILITY

☒ USE-DN generates waste on-site. USE-DN also receives waste generated off-site. Waste screening procedures for receiving wastes from off-site generators is discussed in Section 3.A.

All sections in 3.B are addressed in Section 3.A.

The hazardous waste treated will be properly characterized using generator knowledge or chemical analysis to ensure that it is properly managed within the facility.

Housekeeping, maintenance, laboratory, and waste processing activities often result in the on-site generation of waste. Waste generated at the facility is evaluated in the same manner as off-site waste utilizing procedures provided in the sections above. Laboratory reports and waste characterizations are maintained at the facility as part of its operating record. Hazardous waste generated at the facility is also reported to EGLE as part of the facility operating report in accordance with R 610(3).

Samples collected for the purposes of on-site waste characterization are collected, analyzed, stored, and disposed of by trained and qualified individuals in accordance with the QAM. The QAM includes written procedures outlined in *Test Methods for Evaluating Solid Waste, Physical/Chemical Methods*, EPA Publication SW-846 Compendium.

In accordance with R 299.9609 and 40 CFR 264.73 and 264, Appendix I, which are ABR in R 299.11003, USE-DN will retain all records and results of waste determinations performed as specified in 40 CFR 264.13, 264.17, 264.314, 264.1034, 24.1063, 264.1083, 268.4(a), and 268.7 in the facility operating record until closure of the facility.

3.C NOTIFICATION, CERTIFICATION, AND RECORDKEEPING REQUIREMENTS
{R 299.9627 and R299.9609 and 40 CFR 264.73, 268.7, 268.9(d), which are ABR in R 299.11003}

USE-DN will perform the following procedures for preparing and/or maintaining applicable notifications and certifications to comply with LDRs: See Section 3.A(3).

3.C(1) Retention of Generator Notices and Certifications
{R 299.9627 and 40 CFR 268.7(a)(7), which are ABR in R 299.11003}

USE-DN will retain a copy of all notices, certifications, demonstrations, data, and other documentation associated with compliance to LDRs in the facility operating record for five years.

The following notices and certifications submitted by the initial generator of the waste will be re-reviewed and maintained at the facility for five years:

- Notices of restricted wastes not meeting treatment standards or exceeding levels specified in RCRA, Section 3004(d), including the information listed in R 299.9627 and 40 CFR 268.7(a)(1), which are ABR in R 299.11003.
- Notices of restricted wastes meeting applicable treatment standards and prohibition levels, including the information in R 299.9627 and 40 CFR 268.7(a)(2), which are ABR in R 299.11003.

3.C(2) Notification and Certification Requirements for Treatment Facilities
{R 299.9627 and 40 CFR 268.7(b) which is ABR in R 299.11003}

The treatment facility (USE-DN) will submit a notice and certification to the land disposal facility with each shipment of restricted waste or treatment residue of a restricted waste. The notice

will include the information specified in R 299.9627, 40 CFR 268.7(b)(4) and 268.7(b)(5), which are ABR in R 299.11003.

If the waste or treatment residue will be further managed at a different treatment or storage facility (other than USE-DN), the facility will comply with the notice and certification requirements applicable to generators as specified in R 299.9627 and 40 CFR 268.7(b)(6), which are ABR in R 299.11003.

3.C(3) Waste Shipped to Subtitle C Facilities
{R 299.9627 and 40 CFR 268.7(a) and 268.7(b)(6) which are ABR in 299.11003}

☒ For restricted waste or waste treatment residues that will be further managed at a Subtitle C (hazardous waste management) facility, the facility will submit notifications and certifications in compliance with the notice and certification requirements applicable to generators under R 299.9627 and 40 CFR 268.7(a), which are ABR in R 299.11003. Each shipment of waste to be transported off-site to a RCRA-authorized Subtitle C TSDF will include a written notification and certification that the waste either meets or does not meet applicable treatment standards of prohibition levels.

3.C(4) Waste Shipped to Subtitle D Facilities
{R 299.9627 and 40 CFR 268.7(d) and 268.9(d), which are ABR in 299.11003}

☒ If the facility ships to a Subtitle D facility, the facility will submit a one-time notification and certification for characteristic wastes (or listed wastes that are listed only because they exhibit a characteristic as specified in 40 CFR 261.3 (g)(1)) that have been treated to remove the hazardous characteristic and are no longer considered hazardous. The facility will place a certification and all treatment records in the facility's file and send a notification and certification to the Director of EGLE (or delegated representative) describing the wastes and applicable treatment standards, and identifying the Subtitle D (solid waste management) disposal facility receiving the waste. On an annual basis, the notification and certification will be updated and refiled if the process or operation generating the waste changes and/or if the Subtitle D facility receiving the waste changes.

3.C(5) Recyclable Materials
{R 299.9627 and 40 CFR 268.7(b)(6), which are ABR in 299.11003}

☒ The facility does **not accept** recyclable materials used in a manner constituting disposal.

3.C(6) Recordkeeping
{R 299.9608(4), R 299.9609, R 299.9610(3), R 299.9627, and 40 CFR 264.72, 264.73, 268.7(a)(5), 268.7(a)(6), 268(a)(7), and 268.7(d), which are ABR in R 299.11003}

USE-DN maintains a facility operating record in accordance with R 299.9609 and 40 CFR 264.73.

The following information must be recorded, as it becomes available, and maintained in the operating record for three years, unless noted, as follows:

- Off-site manifests or shipping paper, as well as the original foreign movement document.
- Records and results of waste analyses and waste determinations performed for on-site waste characterization and LDR compliance.
- Summary reports and details of all incidents that require implementing the contingency plan.
- Records and results of inspections required by the Module A5 Inspection Schedule.
- For off-site facilities, notices to generators.
- Waste Minimization Certifications.
- LDR generator notices and TSDF certifications and demonstration including notices of exclusion from the definition of hazardous waste, solid waste, or Subtitle C regulation required by 40 CFR 268.7.
- On-site generated waste LDR notice and certification and demonstration.
- Monitoring, testing, or analytical data, and corrective action required as a result of a release.
- Foreign source notice.
- Major manifest discrepancy notifications.

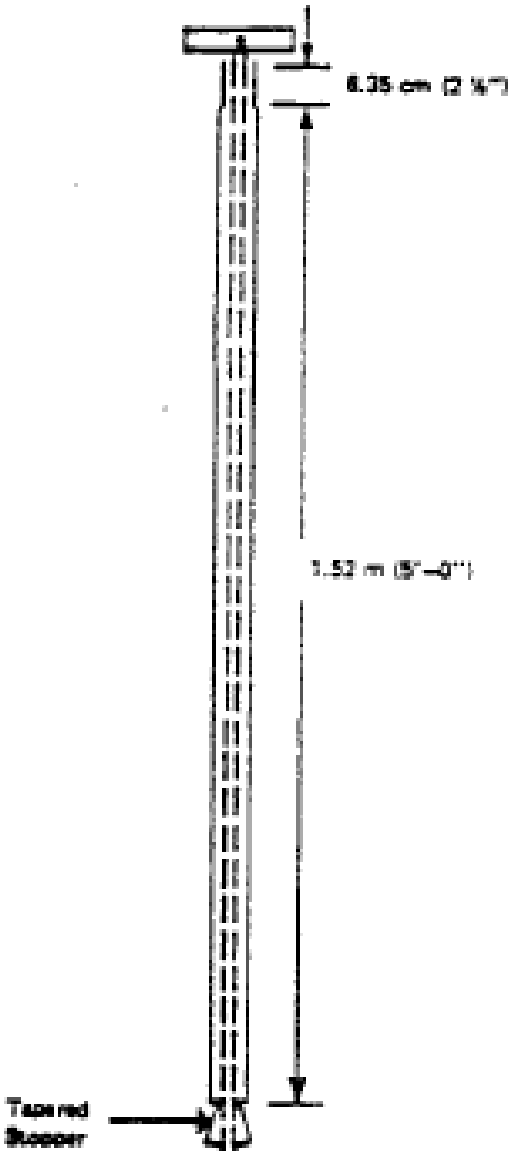
The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

- A description and the quality of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal.
- Groundwater cleanup, monitoring, testing, or analytical data, and corrective action required as a result of a release.
- Closure cost estimate.
- Certifications of major changes to a tank system.

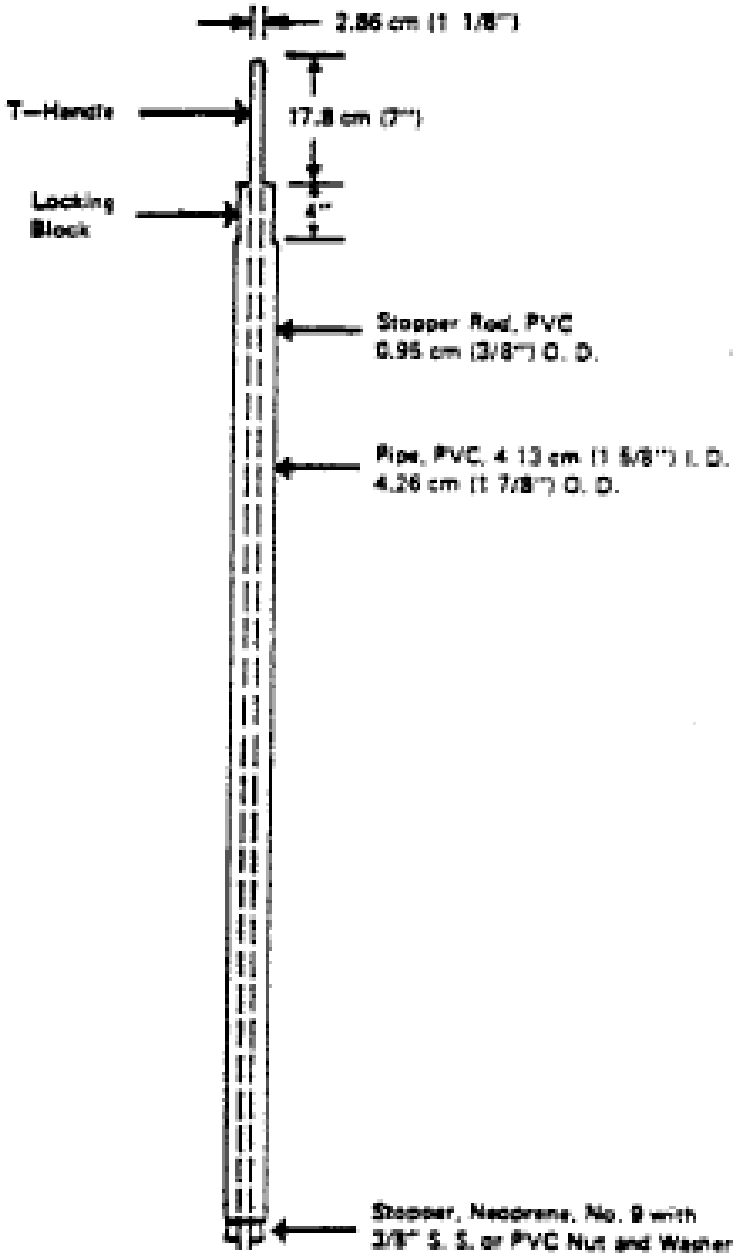
If a significant manifest discrepancy is discovered (such as variation in one piece count or misrepresentation of the type of waste, such as corrosive rather than flammable) which cannot be resolved through contact with the generator or transporter within 15 days of receipt, facility personnel will submit to the Director of EGLE, or designee, a letter describing the discrepancy and all attempts to reconcile the discrepancy. The letter will include a copy of the discrepant manifest or shipping document.

Recycling Facilities*:* The facility will keep records of the name and location of each entity receiving a hazardous waste derived product for a minimum of five years.

Facilities Managing a Restricted Waste That is Excluded from the Definition of a Hazardous or Solid Waste or Exempt from Subtitle C Regulations*:* The facility will place a one-time notice in the facility files describing the generation, basis for exclusion or exemption, and disposal of the waste. For each shipment of treated debris, the facility will place a certification of compliance with applicable treatment standards in the facility's files.



SAMPLING POSITION



CLOSE POSITION

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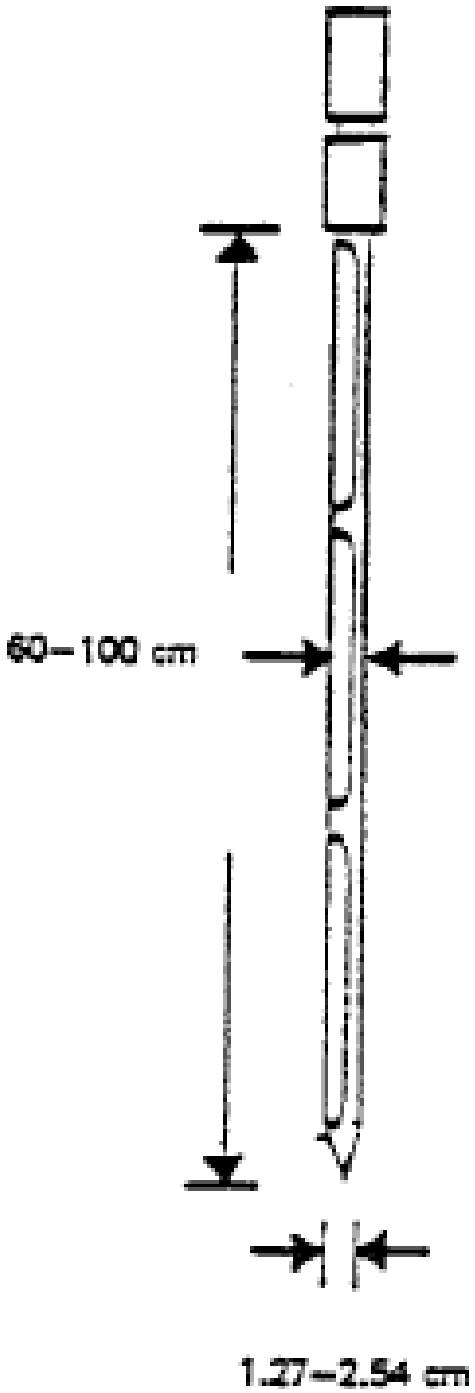
FIGURE A3–1

COMPOSITE LIQUID WASTE SAMPLER (COLIWASA)

DYNECOL, INC.
DETROIT, MICHIGAN

PROJECT NUMBER	101130.01	SCALE:	AS SHOWN



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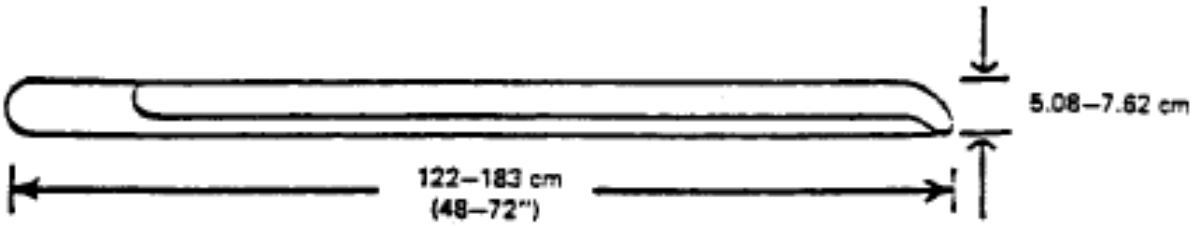
FILE NAME: Figure A3–3.dwg	

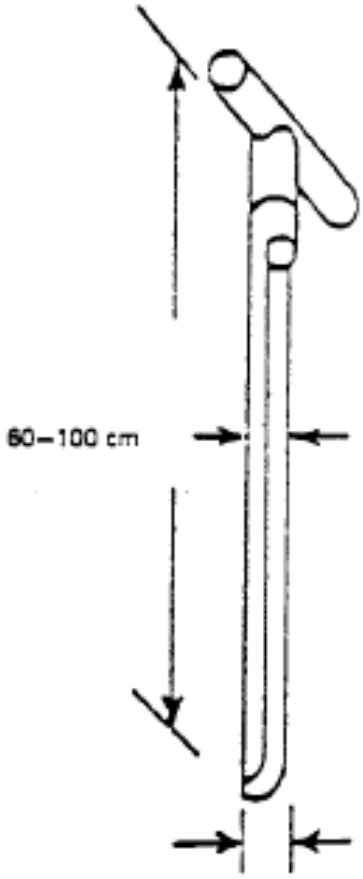
FIGURE A3–3

THIEF SAMPLER

DYNECOL, INC.
DETROIT, MICHIGAN

PROJECT NUMBER	101130.01	SCALE:	AS SHOWN





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DRAWN BY: SC	DATE: JULY 2007
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FILE NAME: Figure A3–4.dwg	

FIGURE A3–4

SAMPLING TRIERS

DYNECOL, INC.
DETROIT, MICHIGAN

PROJECT NUMBER	101130.01	SCALE: AS SHOWN

Figure A3-5

Profile Tracking # _____

WASTE APPROVAL PROFILE FORM

For assistance in completing this document or for additional information on service offerings, please visit our website at www.usecology.com, or call 800-592-5489.

US Ecology will choose the appropriate facility and method of waste management for your waste from the technologies offered at each operation.

If you wish to direct this waste to a specific facility(s) or treatment technology please indicate here:

Waste Common Name:

Section 1 – Generator & Customer Information

Generator EPA ID # _____

NAICS/SIC Code _____

Generator _____

Facility Address _____

City _____ State _____ Zip _____

24-hour Emergency Response Number

_____

Mailing Address _____

City _____ State _____ Zip _____

Generator Contact _____

Title _____

Phone _____ Fax _____

E-mail _____

Internal Use Only: EQ Division _____

EQ Customer No. _____

Invoicing Company _____

Address _____

City _____ State _____ Zip _____

Country _____

Invoicing Contact _____

Phone _____ Fax _____

Technical Contact _____

Phone _____ Fax _____

Cell Phone _____

E-mail _____

Section 2 – Shipping & Packaging Information

2.1) Shipping Volume & Frequency:

a) Volume of Waste to be Shipped: _____

b) Frequency: ❑ One time ❑ Month ❑ Year ❑ Other: _____

2.2) DOT Information

a) Is this a U.S. Department of Transportation (USDOT) Hazardous Material? ❑ Yes ❑ No

b) If "Yes", indicate the proper shipping name per 49CFR 172.101 Hazardous Materials Table:

_____

Section 3 – Special Properties

3.1) Color _____

3.2) Odor ❑ None ❑ Ammonia ❑ Amines ❑ Mercaptans ❑ Sulfur ❑ Organic Acid ❑ Amines/Ammonia

❑ Other: _____

3.3) Consistency at 70^0F: ❑ Solid ❑ Dust/Powder ❑ Debris ❑ Sludge ❑ Liquid ❑ Gas/Aerosol ❑ Varies

3.4) What is the pH? ❑ ≤2 ❑ 2.1-4.9 ❑ 5 – 10 ❑ 10.1 – 12.4 ❑ ≥12.5 ❑ N/A

3.5) What is the flash point? ❑ <90^0F ❑ 90-139^0F ❑ 140-199^0F ❑ >200^0F ❑ N/A

3.6) Does this waste exhibit any of the following properties? **(check all that apply)**

❑ **None**	❑ Free Liquids	❑ Metal Fines	❑ Water Reactive	❑ Biohazard
❑ Shock Sensitive	❑ Oily Residue	❑ Dioxins	❑ Furans	❑ Aluminum
❑ Asbestos – non-friable	❑ Asbestos – friable	❑ Other Radioactive	❑ Air Reactive	❑ Isocyanates
❑ Biodegradable Sorbents	❑ Pyrophoric	❑ Reactive Sulfide	❑ Reactive Cyanide	❑ Explosives
❑ Temperature Controlled Organic Peroxide		❑ NORM	❑ TENORM	

Section 4 – Composition and Generating Process

4.1) Provide a physical and chemical composition of the waste (e.g. soil, water, PPE, debris, etc.). List the percent ranges of the material, either estimated or known.

_____ _____ to ____% _____ _____ to ____%

_____ _____ to ____% _____ _____ to ____%

4.2) Provide a description of the generating process. *Remediation & IDW Sites: please provide a site history.*

_____

_____

_____

4.3) Are there any known previous handling or treatment issues involving this waste? ❑ Yes* ❑ No

*If yes, describe: _____

Section 5 – Hazardous Wastes

As determined by 40 CFR, Part 261 and State Rules: **Please list applicable waste code(s):**

5.1) Is this waste exempted from RCRA? ❑ Yes, please provide exemption: _____ ❑ No

5.2) Is this an EPA RCRA listed hazardous waste (F, K, P or U)? ❑ Yes: _____ ❑ No

a) For F006–F009, F012, does this come from a generator that conducts a cyanide plating process? ❑ Yes ❑ No

5.3) Is this an EPA RCRA characteristic hazardous waste (D001-D043)? ❑ Yes: _____ ❑ No

5.4) Do any State Specific Hazardous Waste Codes apply? ❑ Yes: _____ ❑ No

If you answered 'no' to 5.2, 5.3 and 5.4, please proceed to Section 6.

5.5) EPA Source Code: _____ EPA Form Code: _____

5.6) Waste Code Determination Is Based On: ❑ Generator Knowledge ❑ Analysis ❑ MSDS

Analysis and/or MSDS may be required for review and approval for hazardous and non-hazardous waste streams.

5.7) Does this waste exceed Land Disposal Restriction levels? ❑ Yes ❑ No

a) Is this stream a wastewater (WW) or non-wastewater (NWW)? ❑ WW ❑ NWW

b) If this waste stream is greater than 50% soil, does it meet the alternative soil treatment standards of 40CFR 268.49? ❑ Yes ❑ No

c) Does this waste contain greater than 50% debris, by volume? (Debris is greater than 2.5 inches in size.) ❑ Yes ❑ No

d) If the debris is larger than 3 ft x 3 ft x 3 ft, please provide the approximate dimensions and weight:

_____

5.8) If this is a characteristic hazardous waste, does it contain Underlying Hazardous Constituents? ❑ Yes* ❑ No

*If Yes, please list: _____

For a complete list of UHC constituents, please refer to 40 CFR 268.48

Section 6 – Non-Hazardous Wastes

Please list applicable waste code(s):

6.1) Do any State Specific Non-Hazardous Waste Codes apply? ❑ Yes ❑ No _____

6.2) Is this a Universal (UNIV) waste or a Recyclable Good (RG)? ❑ UNIV ❑ RG ❑ N/A

6.3) Is this waste used oil as defined by 40 CFR Part 279? ❑ Yes ❑ No

a) If yes, is the total halogen content of the used oil waste stream greater than 1,000 ppm? ❑ Yes ❑ No

b) If yes, what is the source of the halogen content?

- ❑ This is a metalworking oil/fluid containing chlorinated paraffins.
- ❑ This is used oil contaminated with chlorofluorocarbons from refrigeration units.
- ❑ This oil contains halogenated solvents. List specific solvents: _____
- ❑ Other, describe: _____

Section 7 – TSCA Information

7.1) What is the concentration of PCBs in the waste? ❑ None ❑ 0-49 ppm ❑ 50-499 ppm ❑ 500+ ppm

7.2) Does the waste contain PCB contamination from a source with a concentration ≥ 50 ppm? ❑ Yes ❑ No ❑ Unknown

If you answered "none" or "0-49 ppm"' to 7.1 and "no" to 7.2, please proceed to Section 8.

7.3) Has this waste been processed into a non-liquid form? ❑ Yes* ❑ No

*If yes, what was the concentration of PCBs prior to processing? ❑ 0-499 ppm ❑ 500+ ppm

7.4) Is this non-liquid PCB waste in the form of soil, rags, debris, or other contaminated media? ❑ Yes ❑ No

7.5) Are you a PCB capacitor manufacturer or a PCB equipment manufacturer? ❑ Yes ❑ No

7.6) Has the PCB Article (e.g., transformer, hydraulic machine, PCB-contaminated electrical equipment) been drained/flushed of all PCBs and decontaminated in accordance with 40 CFR 761.60(b)? ❑ N/A ❑ Yes ❑ No

Section 8 – Clean Air Act Information

8.1) Is this waste subject to regulation under 40 CFR, Part 264, Subpart CC (VOC > 500 ppmw)? ❑ Yes ❑ No

8.2) Is this waste subject to regulation under 40 CFR, Part 63, Subpart DD (VOHAP > 500 ppmw)? ❑ Yes ❑ No

8.3) Is the site, or waste, subject to any other NESHAP/MACT standard(s)? ❑ Yes* ❑ No

*If Yes this document serves as notification that this waste contains chemicals _____ , _____ required to be managed in accordance with Part ❑ 61 ❑ 62 ❑ 63 Subpart _____ of NESHAP/MACT standards.

8.4) Does this waste stream contain Benzene? ❑ Yes ❑ No

If you answered "no" to 8.4, please proceed to Section 9.

8.5) Does the waste stream come from a facility subject to 40 CFR 61, Subpart FF (Benzene NESHAP)?

❑ Yes, please provide the SIC/NAICS code: _____ ❑ No

If you answered "no" to questions 8.5, please proceed to Section 9.

8.6) Does your facility manage the waste subject to Benzene NESHAP in a manner other than shipping off-site?

❑ Yes, please specify: _____ ❑ No

8.7) Is the generating source of this waste a facility with Total Annual Benzene (TAB) ≥10 Mg/year? ❑ Yes ❑ No

8.8) Does the waste contain >10% water? ❑ Yes ❑ No

8.9) What is the TAB quantity for your facility? _____ Mg/Year

8.10) What is the total Benzene concentration in your waste? _____ Percent or _____ ppmw.

Supporting analysis must be attached. Do not use TCLP analytical results. Acceptable laboratory methods include 8020, 8240, 8260, 602 and 624.

Section 9 – Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's personnel to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's personnel to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Generator Signature _____ Printed Name _____

Company _____ Title _____ Date _____

STANDARD TERMS AND CONDITIONS

The Agreement between the Customer and EQ – The Environmental Quality Company and/or its member companies (hereinafter "EQ") related to or associated with Delivered Waste, as herein defined, shall be governed by the following Standard Terms and Conditions in addition to the terms and conditions contained in any Waste Profile Form, Customer Approval Quote Confirmation, Generator Approval Notification, Notice of Waste Approval Expiration, and/or Credit Agreement associated with such Delivered Waste.

The Customer may use its standard forms (such as purchase orders, acknowledgments of orders, and invoices) to administer its dealings under this Agreement for convenience purposes, but all provisions thereof in conflict with these terms and conditions shall be deemed stricken.

Definitions

The following definitions shall apply for purposes of this Agreement:

"**Acceptable Waste"** shall mean any hazardous waste, as defined under applicable State or federal law, determined by EQ as acceptable for treatment and/or disposal in accordance with this Agreement.

"**Delivered Wastes"** shall mean all wastes (i) which are transported, delivered, or tendered to EQ by the Customer; (ii) which the Customer has arranged for the transport, delivery or tender to EQ; or (iii)) which are transported, delivered, or tendered to EQ under a Credit Agreement between the Customer and EQ.

"Non-Conforming Wastes" shall mean wastes that (a) are not in accordance in all material respects with the warranties, descriptions, specifications or limitations stated in the Waste Profile Form and this Agreement; (b) have constituents or components of a type or concentration not specifically identified in the Waste Profile Form (i) which increase the nature or extent of the hazard and risk undertaken by EQ in treating and/or disposing of the waste, or (ii) for whose treatment and/or disposal a Waste Management Facility is not designed or permitted, or (iii) which increase the cost of treatment and/or disposal of waste beyond that specified in EQ's price quote; or (c) are not properly packaged, labeled, described, or placarded, or otherwise not in compliance with United States Department of Transportation and United States Environmental Protection Agency regulations.

Control of Operations.

EQ shall have sole control over all aspects of the operation of any treatment and/or disposal facility of EQ receiving Delivered Wastes under this Agreement (hereinafter, "Waste Management Facility"), including, without limitation, maintaining EQ's desired volume of Acceptable Wastes being delivered to any Waste Management Facility by the Customer or any other person or entity.

Identification of Waste.

For each waste material to be transported, delivered, or tendered to EQ under this Agreement, the Customer shall provide, or cause to be provided, to EQ a representative sample of the waste material and a completed Waste Profile Form containing a physical and chemical description or analysis of such waste material, which description shall conform with any and all guidelines for waste acceptance provided by EQ. On the basis of EQ's analysis of such representative sample of the waste material and such Waste Profile Form, EQ will determine whether such wastes are Acceptable Wastes. EQ does not make any guarantee that it will handle any waste material or any particular quantity or type of waste material, and EQ reserves the right to the decline to transport, treat and/or dispose of waste material. The Customer shall promptly furnish to EQ any information regarding known, suspected or planned changes in the composition of the waste material. Further, the Customer shall promptly inform EQ of any change in the characteristic or condition of the waste material which becomes known to the Customer subsequent to the date of the Waste Profile Form.

Non-Conforming Wastes.

In the event that EQ at any time discovers that any Delivered Waste is Non-Conforming Waste, EQ may reject or revoke its acceptance of the Non-Conforming Waste. The Customer shall have seven (7) days to direct an alternative lawful manner of disposition of the waste, unless it is necessary by reason of law or otherwise to move the Non-Conforming Waste prior to expiration of the seven (7) day period. If the Customer does not direct an alternative disposal, at its option, EQ may return any such Non-Conforming Wastes to the Customer, and the Customer shall pay or reimburse EQ for all costs and expenses incurred by EQ in connection with the receipt, handling, sampling, analyses, transportation and return to the Customer of such Non-Conforming Wastes. If it is impossible or impractical for EQ to return the Non-Conforming Waste to the Customer, the Customer shall reimburse EQ for all costs, of any type or nature whatsoever, incurred by EQ, solely because such Delivered Waste was Non-Conforming Waste (including, but not limited to, all costs associated with any remedial steps necessary, due to the nature of the Non-Conforming Waste, in connection with material with which the Non-Conforming Waste may have been commingled and all expenses and charges for analyzing, handling, locating, preparing for transporting, storing and disposing of any Non-Conforming Waste).

Customer Warranty - Acceptable Wastes.

All Delivered Wastes shall be Acceptable Wastes and shall conform in all material respects to the description and specifications contained in the Waste Profile Form. The information set forth in the Waste Profile Form or any manifest, placard or label associated with any Delivered Wastes, or otherwise represented by the Customer or the generator (if other than the Customer) to EQ, is and shall be true, accurate and complete as of the date of receipt of the involved waste by EQ.

Customer Warranty - Title to Wastes.

Either the Customer or the generator (if other than the Customer) shall hold clear title, free of any all liens, claims, encumbrances, and charges to Delivered Waste until such waste is accepted by EQ.

Customer Warranty - Compliance with Laws.

The Customer shall comply with all applicable federal, state and local environmental statutes, regulations, and other governmental requirements, as well as directives issued by EQ from time to time, governing the transportation, treatment and/or disposal of Acceptable Wastes, including, but not limited to, all packaging, manifesting, containerization, placarding and labeling requirements.

Customer Warranty - Updating Information.

If the Customer receives information that Delivered Waste or other hazardous waste described in the Waste Profile Form, or some component of such waste, presents or may present a hazard or risk to persons, property or the environment which was not disclosed to EQ, or if the Customer or generator (if other than the Customer) has changed the process by which such waste results, the Customer shall promptly report such information to EQ in writing.

Customer Indemnity.

The Customer shall indemnify, defend and hold harmless EQ, and its affiliated or related companies, and all of their respective present or future officers, directors, shareholders, employees and agents from and against any and all losses, damages, liabilities, penalties, fines, forfeitures, demands, claims, causes of action, suits, costs and expenses (including, but not limited to, reasonable costs of defense, settlement, and reasonable attorneys' fees), which may be asserted against any or all of them by any person or any governmental agency, or which any or all of them may hereafter suffer, incur, be responsible for or pay out, as a result of or in connection with bodily injuries (including, but not limited to, death, sickness, disease and emotional or mental distress) to any person (including EQ's employees), damage (including, but not limited to, loss of use) to any property (public or private), or any requirements to conduct or incur expense for investigative, removal or remedial expenses in connection with contamination of or adverse effect on the environment, or any violation or alleged violation of any statues, ordinances, orders, rules or regulations of any governmental entity or agency, caused or arising out of (i) a breach of this Agreement by the Customer, (ii) the failure of any warranty of the Customer to be true, accurate and complete, or (iii) any willful or negligent act or omission of the Customer, or its employees or agents in connection with the performance of this Agreement.

Force Majeure

EQ shall not be liable for any failure to accept, receive, handle, treat, and/or dispose of Delivered Waste due to an act of God, fire, casualty, flood, war, strike, lockout, labor trouble, failure of public utilities, equipment failure, facility shutdown, injunction, accident, epidemic, riot, insurrection, destruction of operation or transportation facilities, the inability to procure materials, equipment, or sufficient personnel or energy in order to meet operational needs without the necessity of allocation, the failure or inability to obtain any governmental approvals or to meet Environmental Requirements (including, but not limited to voluntary or involuntary compliance with any act, exercise, assertion, or requirement of any governmental authority) which may temporarily or permanently prohibit operations of EQ, the Customer, or the Generator, or any other circumstances beyond the control of EQ which prevents or delays performance of any of its obligations under this Agreement.

Governing Laws

This Agreement shall in all respects be governed by and shall be construed in accordance with the laws of the State of Michigan applied to contracts executed and performed wholly within such state.

Bulk Disposal Charges

Quoted bulk disposal charges for solid materials will be billed by the cubic yard, if the waste density is less than 2,000lbs./cubic yard. If waste density is greater than 2,000 lbs./cubic yard, then bulk disposal charges will be billed by the ton, regardless of the approved container.

Profile Tracking # _____

WASTE PROFILE ADDENDUM

For assistance in completing this document or for additional information on service offerings, please visit our website at www.usecology.com, or call 800-592-5489.

US Ecology will choose the appropriate facility and method of waste management for your waste from the technologies offered at each operation.

If you wish to direct this waste to a specific facility(s) or treatment technology please indicate here:

Waste Common Name:

This addendum is applicable only to *hazardous* waste destined for wastewater treatment at the US Ecology Detroit North Facility.

Check the appropriate box applicable to waste identified by Profile Tracking Number above:

❑ Due to my specific knowledge of this waste and the generation process I certify that this waste **does not** contain organics at a level of 10% or greater by weight. *For example, show that no organic compounds are used in the process or that the waste is identical to that generated at another facility that has been shown by direct measurement to contain less than 10 ppmw of total organic compounds.*

❑ Due to my specific knowledge of this waste and the generation process I certify that this waste **does** contain organics at a level of 10% or greater by weight.

❑ Based on the attached analytical results I certify that this waste **does not** contain organics at a level of 10% or greater by weight. The sample utilized to generate these results represents the highest total organic content of the waste stream and was analyzed using the appropriate method (i.e. SW846-9060A, ASTMD 2267-88, E 169-87, E 168-88, E 260-85).

Certification

I certify that all information (including attachments) is complete and factual and is an accurate representation of the known and suspected hazards, pertaining to the waste described herein. I authorize EQ's personnel to add supplemental information to the waste approval file, provided I am contacted and give verbal permission. I authorize EQ's personnel to obtain a sample from any waste shipment for purposes of verification and confirmation. I agree that, if EQ approves the waste described herein, all such wastes that are transported, delivered, or tendered to EQ by Generator or on Generator's behalf shall be subject to, and Generator shall be bound by, the attached Standard Terms and Conditions.

If I am an agent acting on behalf of the generator, I also certify that I have permission to sign any and all waste characterization paperwork on the generator's behalf and that I can produce such certification in writing upon request.

Generator Signature _____ Printed Name _____

Company _____ Title _____ Date _____

TABLE A3-2
CHEMICAL CHARACTERIZATION HIERARCHY

Waste Description	PCB	Cyanide	Oxidizer	pH	Flash Point	Water Reactive	Hazard Label***
Radioactive~	*	*	*	*	*	*	Reject
Dioxins~	*	*	*	*	*	*	Poison
Explosives~	*	*	*	*	*	*	Reject
PCB	>/= 50ppm	*	*	*	*	*	Reject
Cyanide	< 50 ppm	>200 ppm	*	*	*	*	Reactive
Cyanide	< 50 ppm	<10 or >200 ppm	*	*	*	*	Reactive[1]
Oxidizer	> 50 ppm	< 250 ppm	**	*	*	*	Oxidizer
Corrosive Acid	< 50 ppm	<250 ppm	No	0-2	*	*	Corrosive Acid
Corrosive Base	< 50 ppm	<250 ppm	No	12.5-14	*	*	Corrosive Base
Flammable	< 50 ppm	<250 ppm	No	>2 & <12.5	</= 140 deg F	*	Catergory 1, 2 or 3 Flammable
Water Reactive	< 50 ppm	<250 ppm	No	>2 & <12.5	> 140 deg F	Yes	Dangerous When Wet
Hazardous waste other than those identified above	< 50 ppm	<250 ppm	No	>2 & <12.5	> 140 deg F	No	Hazardous Waste
Lab Packs (Non-oxidizer)	< 50 ppm	*	No	>2 & <12.5	> 140 deg F	No	Dangerous Waste

Notes:

1 results between 10 and 200 require further evaluation of reactivity

* Result irrelevant: prior category has greater importance

**As listed in 49 CFR 172.101

*** In addition to RCRA labeling requirement

~ Based on generator's knowledge

>/= denotes "greater than or equal to"

</= denotes "less than or equal to"

> denotes "greater than"

< denotes "less than"

TABLE A3-3
COMPATIBILITY MATRIX FOR WASTE STORAGE WITHIN BAYS*

Waste Characteristic	Cyanide Wastes	Oxidizers	Corrosive Acids	Corrosive Bases	Flammables	Water Reactives	Hazardous Wastes
Cyanide Wastes	C	X	X	C	X	X	C
Oxidizers	X	C	O	O	C"	C	C
Corrosive Acids	X	O	C	X	C'	O	C
Corrosive Bases	C	O	X	C	C'	O	C
Flammables	X	C"	C'	C'	C	C	C
Water Reactives	X	C	O	O	C	C	X
Hazardous Wastes (not identified above)	C	C	C	C	C	X	C
Dangerous (non -oxidizer)**	C	X	C	C	C	C	C

Notes:

C = COMPATIBLE

C' = COMPATIBLE WITH FLAMMABLE LIQUIDS FOR FLAMMABLE SOLIDS, MUST BE SEPARATED BY A DISTANCE OF 4 FT IN ALL DIRECTIONS

C" = COMPATIBLE WITH FLAMMABLE SOLDS FOR FLAMMABLE LIQUIDS, MUST BE SEPARATED BY A DISTANCE OF 4 FT IN ALL DIRECTIONS

O = MUST BE SEPARATED BY A DISTANCE OF 4 FEET IN ALL DIRECTIONS

X = INCOMPATIBLE

* Used as general guidelines only. For more specific amplifications/limitations refer to HM 181

** Compatible during transportation

Table A3-4

Random Numbers

3	47	43	73	86	36	96	47	36	61	46	98	63	71	62
97	74	24	67	62	42	81	14	57	20	42	53	32	37	32
16	76	62	27	66	56	50	26	71	7	32	90	79	78	53
12	56	85	99	26	96	96	68	27	31	5	3	72	93	15
55	59	56	35	64	38	54	82	46	22	31	62	43	9	90
16	22	77	94	39	49	54	43	54	82	17	37	93	23	78
84	42	17	53	31	57	24	55	6	88	77	4	74	47	67
63	1	63	78	59	16	95	55	67	19	98	10	50	71	75
33	21	12	34	29	78	64	56	7	82	52	42	7	44	38
57	60	86	32	44	9	47	27	96	54	49	17	46	9	62
18	18	7	92	46	44	17	16	58	9	79	83	86	19	62
26	62	38	97	75	84	16	7	44	99	83	11	46	32	24
23	42	40	64	74	82	97	77	77	81	7	45	32	14	8
52	36	28	19	95	50	92	26	11	97	0	56	76	31	38
37	85	94	35	12	83	39	50	8	30	42	34	7	96	88
70	29	17	12	13	40	33	20	38	26	13	89	51	3	74
56	62	18	37	35	96	83	50	87	75	97	12	25	93	47
99	49	57	22	77	88	42	95	45	72	16	64	36	16	0
16	8	15	4	72	33	27	14	34	9	45	59	34	68	49
31	16	93	32	43	50	27	89	87	19	20	15	37	0	49

HOW TO USE THE TABLE OF RANDOM NUMBERS:

1. Segregate the containers (i.e., drums) according to waste types, and generator based on available information.

2. Number the containers containing the same waste types consecutively, starting from 01.

3. Determine the number of samples required. For more than 100 containers, sample at least 10% of the containers. For shipments of 100 fewer containers, the number of containers to sample equals the square root of the number of containers.

4. Using the set of random numbers above, choose any number as a starting point.

5. From this number, go down the column, then to the next column to the right, or go in any predetermined direction until you have selected the appropriate number of drums to sample, with no repetitions. Larger numbers are ineligible. (For example, if you wish to sample 5 drums out of a shipment of 20, and you choose 19 as the starting point on column four, the next eligible numbers as you go down this column are 12 and 04. So far you have chosen only three eligible numbers. Proceed to the next column to the right. Going down and starting from the top of this column, the next eligible numbers are 12 and 13. But 12 is already chosen. Proceeding to the sixth column, the next eligible number is 16. Your five random numbers, therefore, are 19, 12, 04, 13 and 16. The drums with corresponding numbers should be sampled.

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
D001[9]	D001 High TOC Ignitable Characteristic Liquids Subcategory based on 40 CFR 261.21(a)(1)—Greater than or equal to 10%	NA	SW-846 1010, 1020	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 1010, 1020	Compliance with LDR treatment standards	NA	RORGS; CMBST; or POLYM
D002[9]	D002	NA	SW-846 9040	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9040	Compliance with LDR treatment standards	DEACT and meet §268.48 standards[8]	DEACT and meet §268.48 standards[8]
D003[9]	D003 Reactive Sulfides Subcategory based on 261.23(a)(5).	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	DEACT	DEACT
D003[9]	D003 Other Reactives Subcategory based on 261.23(a)(1).	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	DEACT and meet §268.48 standards[8]	DEACT and meet §268.48 standards[8]
D003[9]	D003 Water Reactive Subcategory based on 261.23(a)(2), (3), and (4). (Note: This subcategory consists of nonwastewaters	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	NA	DEACT and meet §268.48 standards[8]
D003[9]	D003 Reactive Cyanides Subcategory based on 261.23(a)(5).	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	Reserved	590
D003[9]	D003 Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
D004[9]	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4 and meet §268.48 standards[8]	5.0 mg/L TCLP and meet §268.48 standards[8]
D005[9]	Barium	7440-39-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.2 and meet §268.48 standards[8]	21 mg/L TCLP and meet §268.48 standards[8]
D006[9]	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69 and meet §268.48 standards[8]	0.11 mg/L TCLP and meet §268.48 standards[8]
D006[9]	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	RTHRM
D007[9]	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77 and meet §268.48 standards[8]	0.60 mg/L TCLP and meet §268.48 standards[8]
D008[9]	D008 Wastes that exhibit, or are expected to exhibit, the characteristic of toxicity for lead based on the toxicity characteristic leaching	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69 and meet §268.48 standards[8]	0.75 mg/L TCLP and meet §268.48 standards[8]
D008[9]	D008 Lead Acid Batteries Subcategory (Note: This standard only applies to lead acid batteries that are identified as RCRA	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	RLEAD

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
D009[9]	D009 Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity	7439-97-6	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	IMERC; OR RMERC
D009[9]	D009 Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity	7439-97-6	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	RMERC
D009[9]	D009 Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity	7439-97-6	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.20 mg/L TCLP and meet §268.48 standards[8]
D009[9]	D009 All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity	7439-97-6	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.025 mg/L TCLP and meet §268.48 standards[8]
D009[9]	D009 All D009 wastewaters.	7439-97-6	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.15 mg/L TCLP and meet §268.48 standards[8]	NA
D010[9]	Selenium	7782-49-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82 and meet §268.48 standards[8]	5.7 mg/L TCLP and meet §268.48 standards[8]
D011[9]	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.43 and meet §268.48 standards[8]	0.14 mg/L TCLP and meet §268.48 standards[8]
D012[9]	Endrin	72-20-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	BIODG; or CMBST	0.13 and meet §268.48 standards[8]
D012[9]	Endrin aldehyde	7421-93-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	BIODG; or CMBST	0.13 and meet §268.48 standards[8]
D013[9]	D013 alpha-BHC	319-84-6	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	CARBN; or CMBST	0.066 and meet §268.48 standards[8]
D013[9]	D013 beta-BHC	319-85-7	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	CARBN; or CMBST	0.066 and meet §268.48 standards[8]
D013[9]	D013 delta-BHC	319-86-8	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	CARBN; or CMBST	0.066 and meet §268.48 standards[8]
D013[9]	D013 gamma-BHC (Lindane)	58-89-9	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	CARBN; or CMBST	0.066 and meet §268.48 standards[8]
D014[9]	Methoxychlor	72-43-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	WETOX or CMBST	0.18 and meet §268.48 standards[8]

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
D015[9]	Toxaphene	8001-35-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	BIODG or CMBST	2.6 and meet §268.48 standards[8]
D016[9]	2,4,-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	CHOXD, BIODG, or CMBST	10 and meet §268.48 standards[8]
D017[9]	2,4,5-TP (Silvex)	93-72-1	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	CHOXD or CMBST	7.9 and meet §268.48 standards[8]
D018[9]	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14 and meet §268.48 standards[8]	10 and meet §268.48 standards[8]
D019[9]	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057 and meet §268.48 standards[8]	6.0 and meet §268.48 standards[8]
D020[9]	Chlordane (alpha and gamma isomers)	57-74-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0033 and meet §268.48 standards[8]	0.26 and meet §268.48 standards[8]
D021[9]	Chlorobenzene	108-90-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057 and meet §268.48 standards[8]	6.0 and meet §268.48 standards[8]
D022[9]	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046 and meet §268.48 standards[8]	6.0 and meet §268.48 standards[8]
D023[9]	o-Cresol	95-48-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.11 and meet §268.48 standards[8]	5.6 and meet §268.48 standards[8]
D024[9]	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77 and meet §268.48 standards[8]	5.6 and meet §268.48 standards[8]
D025[9]	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77 and meet §268.48 standards[8]	5.6 and meet §268.48 standards[8]
D026[9]	Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.88 and meet §268.48 standards[8]	11.2 and meet §268.48 standards[8]
D027[9]	p-Dichlorobenzene (1,4-Dichlorobenzene)	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.090 and meet §268.48 standards[8]	6.0 and meet §268.48 standards[8]
D028[9]	1,2-Dichloroethane	107-06-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.21 and meet §268.48 standards[8]	6.0 and meet §268.48 standards[8]

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
D029[9]	1,1-Dichloroethylene	75-35-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.025 and meet §268.48 standards[8]	6.0 and meet §268.48 standards[8]
D030[9]	2,4-Dinitrotoluene	121-14-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.32 and meet §268.48 standards[8]	140 and meet §268.48 standards[8]
D031[9]	Heptachlor	76-44-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0012 and meet §268.48 standards[8]	0.066 and meet §268.48 standards[8]
D031[9]	Heptachlor epoxide	1024-57-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.016 and meet §268.48 standards[8]	0.066 and meet §268.48 standards[8]
D032[9]	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055 and meet §268.48 standards[8]	10 and meet §268.48 standards[8]
D033[9]	Hexachlorobutadiene	87-68-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055 and meet §268.48 standards[8]	5.6 and meet §268.48 standards[8]
D034[9]	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055 and meet §268.48 standards[8]	30 and meet §268.48 standards[8]
D035[9]	Methyl ethyl ketone	78-93-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28 and meet §268.48 standards[8]	36 and meet §268.48 standards[8]
D036[9]	Nitrobenzene	98-95-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.068 and meet §268.48 standards[8]	14 and meet §268.48 standards[8]
D037[9]	Pentachlorophenol	87-86-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.089 and meet §268.48 standards[8]	7.4 and meet §268.48 standards[8]
D038[9]	Pyridine	110-86-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.014 and meet §268.48 standards[8]	16 and meet §268.48 standards[8]
D039[9]	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056 and meet §268.48 standards[8]	6.0 and meet §268.48 standards[8]
D040[9]	Trichloroethylene	79-01-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054 and meet §268.48 standards[8]	6.0 and meet §268.48 standards[8]
D041[9]	2,4,5-Trichlorophenol	95-95-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.18 and meet §268.48 standards[8]	7.4 and meet §268.48 standards[8]

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
D042[9]	2,4,6-Trichlorophenol	88-06-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035 and meet §268.48 standards[8]	7.4 and meet §268.48 standards[8]
D043[9]	Vinyl chloride	75-01-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.27 and meet §268.48 standards[8]	6.0 and meet §268.48 standards[8]
F001, F002, F003, F004, & F005	Acetone	67-64-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	160
F001, F002, F003, F004, & F005	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
F001, F002, F003, F004, & F005	n-Butyl alcohol	71-36-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	2.6
F001, F002, F003, F004, & F005	Carbon disulfide	75-15-0	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	3.8	NA
F001, F002, F003, F004, & F005	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
F001, F002, F003, F004, & F005	Chlorobenzene	108-90-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
F001, F002, F003, F004, & F005	o-Cresol	95-48-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.11	5.6
F001, F002, F003, F004, & F005	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
F001, F002, F003, F004, & F005	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
F001, F002, F003, F004, & F005	Cresol-mixed isomers (Cresylic acid) (sum of o-, m-, and p-cresol concentrations)	1319-77-3	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.88	11.2
F001, F002, F003, F004, & F005	Cyclohexanone	108-94-1	SW-846 8315	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8315	Compliance with LDR treatment standards	0.36	NA
F001, F002, F003, F004, & F005	o-Dichlorobenzene	95-50-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.088	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F001, F002, F003, F004, & F005	Ethyl acetate	141-78-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.34	33
F001, F002, F003, F004, & F005	Ethyl benzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
F001, F002, F003, F004, & F005	Ethyl ether	60-29-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.12	160
F001, F002, F003, F004, & F005	Isobutyl alcohol	78-83-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	170
F001, F002, F003, F004, & F005	Methanol	67-56-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	NA
F001, F002, F003, F004, & F005	Methylene chloride	75-9-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.089	30
F001, F002, F003, F004, & F005	Methyl ethyl ketone	78-93-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	36
F001, F002, F003, F004, & F005	Methyl isobutyl ketone	108-10-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	33
F001, F002, F003, F004, & F005	Nitrobenzene	98-95-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.068	14
F001, F002, F003, F004, & F005	Pyridine	110-86-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.014	16
F001, F002, F003, F004, & F005	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
F001, F002, F003, F004, & F005	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
F001, F002, F003, F004, & F005	1,1,1-Trichloroethane	71-55-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
F001, F002, F003, F004, & F005	1,1,2-Trichloroethane	79-00-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F001, F002, F003, F004, & F005	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	30
F001, F002, F003, F004, & F005	Trichloroethylene	79-01-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
F001, F002, F003, F004, & F005	Trichlorofluoromethane	75-69-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.02	30
F001, F002, F003, F004, & F005	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
F003 and/or F005 solvent wastes that	Carbon disulfide	75-15-0	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	3.8	4.8 mg/L TCLP
F003 and/or F005 solvent wastes that	Cyclohexanone	108-94-1	SW-846 8315	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8315	Compliance with LDR treatment standards	0.36	0.75 mg/L TCLP
F003 and/or F005 solvent wastes that	Methanol	67-56-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	0.75 mg/L TCLP
F005 solvent waste containing 2-	2-Nitropropane	79-46-9	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
F005 solvent waste containing 2-	2-Ethoxyethanol	110-80-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	BIODG; or CMBST	CMBST
F006	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.11 mg/L TCLP
F006	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F006	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F006	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
F006	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F006	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
F006	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.14 mg/L TCLP
F007	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.11 mg/L TCLP
F007	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F007	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F007	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
F007	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
F007	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
F007	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.14 mg/L TCLP
F008	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.11 mg/L TCLP
F008	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F008	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F008	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
F008	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F008	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
F008	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.14 mg/L TCLP
F009	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.11 mg/L TCLP
F009	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F009	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F009	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
F009	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
F009	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
F009	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.14 mg/L TCLP
F010	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F010	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	NA
F011	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.11 mg/L TCLP
F011	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F011	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F011	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
F011	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
F011	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
F011	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.14 mg/L TCLP
F012	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.11 mg/L TCLP
F012	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F012	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F012	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
F012	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
F012	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
F012	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.14 mg/L TCLP
F019	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F019	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F019	Cyanides (Amendable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F020, F021, F022, F023, F026	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F020, F021, F022, F023, F026	Hx CDFs (All Hexachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F020, F021, F022, F023, F026	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F020, F021, F022, F023, F026	PeCDFs (All Pentachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035	0.001
F020, F021, F022, F023, F026	Pentachlorophenol	87-86-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.089	7.4
F020, F021, F022, F023, F026	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F020, F021, F022, F023, F026	TCDFs (All Tetrachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F020, F021, F022, F023, F026	2,4,5-Trichlorophenol	95-95-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.18	7.4
F020, F021, F022, F023, F026	2,4-6-Trichlorophenol	88-06-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035	7.4
F020, F021, F022, F023, F026	2,3,4,6-Tetrachlorophenol	58-90-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.03	7.4
F024	All F024 wastes	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST[11]	CMBST[11]
F024	2-Chloro-1,3-butadiene	126-99-8	SW-846 8021	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8021	Compliance with LDR treatment standards	0.057	0.28
F024	3-Chloropropylene	107-05-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.036	30
F024	1,1-Dichloroethane	75-34-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F024	1,2-Dichloroethane	107-06-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.21	6
F024	1,2-Dichloropropane	78-87-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.85	18
F024	cis-1,3-Dichloropropylene	10061-01-5	SW-846 8021	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8021	Compliance with LDR treatment standards	0.036	18
F024	trans-1-3-Dichloropropylene	10061-02-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.036	18
F024	bis(2-Ethylhexyl)phthalate	117-81-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.28	28
F024	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
F024	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F024	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
F025	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
F025	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
F025	1,2-Dichloroethane	107-06-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.21	6
F025	1,1-Dichloroethylene	75-35-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.025	6
F025	Methylene chloride	75-9-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.089	30
F025	1,1,2-Trichloroethane	79-00-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F025	Trichloroethylene	79-01-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
F025	Vinyl chloride	75-01-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.27	6
F025	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
F025	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
F025	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
F025	Hexachlorobutadiene	87-68-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	5.6
F025	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
F025	Methylene chloride	75-9-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.089	30
F025	1,1,2-Trichloroethane	79-00-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
F025	Trichloroethylene	79-01-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
F025	Vinyl chloride	75-01-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.27	6
F027	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F027	HxCDFs (All Hexachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F027	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F027	PeCDFs (All Pentachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035	0.001
F027	Pentachlorophenol	87-86-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.089	7.4
F027	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F027	TCDFs (All Tetrachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F027	2,4,5-Trichlorophenol	95-95-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.18	7.4
F027	2,4,6-Trichlorophenol	88-06-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035	7.4
F027	2,3,4,6-Tetrachlorophenol	58-90-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.03	7.4
F028	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F028	HxCDFs (All Hexachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F028	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F028	PeCDFs (All Pentachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035	0.001
F028	Pentachlorophenol	87-86-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.089	7.4
F028	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F028	TCDFs (All Tetrachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F028	2,4,5-Trichlorophenol	95-95-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.18	7.4
F028	2,4,6-Trichlorophenol	88-06-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035	7.4
F028	2,3,4,6-Tetrachlorophenol	58-90-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.03	7.4
F032	Acenaphthene	83-32-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F032	Anthracene	120-12-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F032	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F032	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
F032	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
F032	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
F032	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F032	Dibenz(a,h) anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
F032	2-4-Dimethyl phenol	105-67-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.036	14
F032	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F032	Hexachlorodibenzo-p-dioxins	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063, or CMBST[11]	0.001, or CMBST[11]

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F032	Hexachlorodibenzofurans	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063, or CMBST[11]	0.001, or CMBST[11]
F032	Indeno (1,2,3-c,d) pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
F032	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
F032	Pentachlorodibenzo-p-dioxins	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063, or CMBST[11]	0.001, or CMBST[11]
F032	Pentachlorodibenzofurans	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.00035, or CMBST[11]	0.001, or CMBST[11]
F032	Pentachlorophenol	87-86-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.089	7.4
F032	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
F032	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
F032	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
F032	Tetrachlorodibenzo-p-dioxins	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063, or CMBST[11]	0.001, or CMBST[11]
F032	Tetrachlorodibenzofurans	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063, or CMBST[11]	0.001, or CMBST[11]
F032	2,3,4,6-Tetrachlorophenol	58-90-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.03	7.4
F032	2,4,6-Trichlorophenol	88-06-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035	7.4
F032	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F032	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F034	Acenaphthene	83-32-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F034	Anthracene	120-12-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F034	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F034	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
F034	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
F034	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
F034	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F034	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
F034	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F034	Indeno(1,2,3-c,d)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
F034	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
F034	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
F034	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F034	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
F034	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F035	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
F035	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F037	Acenaphthene	83-32-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	NA
F037	Anthracene	120-12-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F037	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
F037	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F037	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
F037	bis(2-Ethylhexyl) phthalate	117-81-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.28	28
F037	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F037	Di-n-butyl phthalate	84-74-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	28
F037	Ethylbenzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
F037	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	NA

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F037	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
F037	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
F037	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
F037	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
F037	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
F037	Xylenes-mixed isomers (sum of o, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
F037	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F037	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F037	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
F037	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	11 mg/L TCLP
F038	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
F038	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
F038	bis(2-Ethylhexyl) phthalate	117-81-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.28	28
F038	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F038	Di-n-butyl phthalate	84-74-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	28
F038	Ethylbenzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
F038	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	NA
F038	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
F038	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
F038	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
F038	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
F038	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
F038	Xylenes-mixed isomers (sum of o, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
F038	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F038	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F038	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
F038	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	11 mg/L TCLP
F039	Acenaphthylene	208-96-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3,4

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	Acenaphthene	83-32-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F039	Acetone	67-64-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	160
F039	Acetonitrile	75-05-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	NA
F039	Acetophenone	96-86-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.01	9.7
F039	2-Acetylaminofluorene	53-96-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	140
F039	Acrolein	107-02-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.29	NA
F039	Acrylonitrile	107-13-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.24	84
F039	Aldrin	309-00-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.021	0.066
F039	4-Aminobiphenyl	92-67-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.13	NA
F039	Aniline	62-53-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.81	14
F039	o-Anisidine (2-methoxyaniline)	90-04-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.01	0.66
F039	Anthracene	120-12-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F039	Aramite	140-57-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.36	NA
F039	alpha-BHC	319-84-6	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.00014	0.066

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	beta-BHC	319-85-7	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.00014	0.066
F039	delta-BHC	319-86-8	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.023	0.066
F039	gamma-BHC	58-89-9	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.0017	0.066
F039	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
F039	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F039	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
F039	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
F039	Benzo(g,h,i)perylene	191-24-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	1.8
F039	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
F039	Bromodichloromethane	75-27-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.35	15
F039	Methyl bromide (Bromomethane)	74-83-9	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15
F039	4-Bromophenyl phenyl ether	101-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	15
F039	n-Butyl alcohol	71-36-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	2.6
F039	Butyl benzyl phthalate	85-68-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	28

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	2-sec-Buty-4,6-dinitrophenol (Dinoseb)	88-85-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.066	2.5
F039	Carbon disulfide	75-15-0	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	3.8	NA
F039	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
F039	Chlordane (alpha and gamma isomers)	57-74-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0033	0.26
F039	p-Chloroaniline	106-47-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.46	16
F039	Chlorobenzene	108-90-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
F039	Chlorobenzilate	510-15-6	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.1	NA
F039	2-Chloro-1,3-butadiene	126-99-8	SW-846 8021	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8021	Compliance with LDR treatment standards	0.057	NA
F039	Chlorodibromomethane	124-48-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	15
F039	Chloroethane	75-00-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.27	6
F039	bis(2-Chloroethoxy)methane	111-91-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.036	7.2
F039	bis(2-Chloroethyl)ether	111-44-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.033	6
F039	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
F039	bis(2-Chloroisopropyl)ether	39638-32-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	7.2

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	p-Chloro-m-cresol	59-50-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.018	14
F039	Chloromethane (Methyl chloride)	74-87-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.19	30
F039	2-Chloronaphthalene	91-58-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	5.6
F039	2-Chlorophenol	95-57-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.044	5.7
F039	3-Chloropropylene	107-05-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.036	30
F039	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F039	o-Cresol	95-48-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.11	5.6
F039	p-Cresidine	120-71-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.01	0.66
F039	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
F039	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
F039	Cyclohexanone	108-94-1	SW-846 8315	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8315	Compliance with LDR treatment standards	0.36	NA
F039	1,2-Dibromo-3-chloropropane	96-12-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15
F039	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.028	15
F039	Dibromomethane	74-95-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.72	10
F039	o,p′-DDD	53-19-0	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.023	0.087
F039	p,p′-DDD	72-54-8	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.023	0.087
F039	o,p′-DDE	3424-82-6	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.031	0.087
F039	p,p′-DDE	72-55-9	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.031	0.087
F039	o,p′-DDT	789-02-6	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.0039	0.087
F039	p,p′-DDT	50-29-3	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.0039	0.087
F039	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
F039	Dibenz(a,e)pyrene	192-65-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	NA
F039	m-Dichlorobenzene	541-73-1	SW-846 8410	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8410	Compliance with LDR treatment standards	0.036	6
F039	o-Dichlorobenzene	95-50-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.088	6
F039	p-Dichlorobenzene	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.09	6
F039	Dichlorodifluoromethane	75-71-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.23	7.2
F039	1,1-Dichloroethane	75-34-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	1,2-Dichloroethane	107-06-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.21	6
F039	1,1-Dichloroethylene	75-35-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.025	6
F039	trans-1,2-Dichloroethylene	156-60-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	30
F039	2,4-Dichlorophenol	120-83-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.044	14
F039	2,6-Dichlorophenol	87-65-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.044	14
F039	1,2-Dichloropropane	78-87-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.85	18
F039	cis-1,3-Dichloropropylene	10061-01-5	SW-846 8021	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8021	Compliance with LDR treatment standards	0.036	18
F039	trans-1,3-Dichloropropylene	10061-02-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.036	18
F039	Dieldrin	60-57-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	0.13
F039	Diethyl phthalate	84-66-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.2	28
F039	2,4-Dimethylaniline (2,4-xylidine)	95-68-1	GC	Characterization of waste to confirm generator analysis and determing treatment method	GC	Compliance with LDR treatment standards	0.01	0.66
F039	2-4-Dimethyl phenol	105-67-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.036	14
F039	Dimethyl phthalate	131-11-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.047	28
F039	Di-n-butyl phthalate	84-74-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	28

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	1,4-Dinitrobenzene	100-25-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.32	2.3
F039	4,6-Dinitro-o-cresol	534-52-1	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.28	160
F039	2,4-Dinitrophenol	51-28-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.12	160
F039	2,4-Dinitrotoluene	121-14-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.32	140
F039	2,6-Dinitrotoluene	606-20-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.55	28
F039	Di-n-octyl phthalate	117-84-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	28
F039	Di-n-propylnitrosamine	621-64-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.4	14
F039	1,4-Dioxane	123-91-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	12	170
F039	Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.92	NA
F039	Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	HPLC	Characterization of waste to confirm generator analysis and determing treatment method	HPLC	Compliance with LDR treatment standards	0.92	NA
F039	1,2-Diphenylhydrazine	122-66-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.087	NA
F039	Disulfoton	298-04-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	6.2
F039	Endosulfan I	939-98-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.023	0.066
F039	Endosulfan II	33213-6-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.029	0.13

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	Endosulfan sulfate	1031-07-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.029	0.13
F039	Endrin	72-20-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0028	0.13
F039	Endrin aldehyde	7421-93-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.025	0.13
F039	Ethyl acetate	141-78-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.34	33
F039	Ethyl cyanide (Propanenitrile)	107-12-0	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.24	360
F039	Ethyl benzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
F039	Ethyl ether	60-29-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.12	160
F039	bis(2-Ethylhexyl) phthalate	117-81-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.28	28
F039	Ethyl methacrylate	97-63-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	160
F039	Ethylene oxide	75-21-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.12	NA
F039	Famphur	52-85-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	15
F039	Fluoranthene	206-44-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.068	3.4
F039	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
F039	Heptachlor	76-44-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0012	0.066

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	Heptachlor epoxide	1024-57-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.016	0.066
F039	1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035	0.0025
F039	1, 2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035	0.0025
F039	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035	0.0025
F039	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
F039	Hexachlorobutadiene	87-68-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	5.6
F039	Hexachlorocyclopentadiene	77-47-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	2.4
F039	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F039	HxCDFs (All Hexachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F039	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
F039	Hexachloropropylene	1888-71-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035	30
F039	Indeno (1,2,3-c,d) pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
F039	Indomethane	74-88-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.019	65
F039	Isobutyl alcohol	78-83-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	170

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	Isodrin	465-73-6	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.021	0.066
F039	Isosafrole	120-58-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.081	2.6
F039	Kepone	143-50-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0011	0.13
F039	Methacylonitrile	126-98-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.24	84
F039	Methanol	67-56-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	NA
F039	Methapyrilene	91-80-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.081	1.5
F039	Methoxychlor	72-43-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.25	0.18
F039	3-Methylcholanthrene	56-49-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	15
F039	4,4-Methylene bis(2-chloroaniline)	101-14-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.5	30
F039	Methylene chloride	75-09-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.089	30
F039	Methyl ethyl ketone	78-93-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	36
F039	Methyl isobutyl ketone	108-10-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	33
F039	Methyl methacrylate	80-62-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	160
F039	Methyl methanesulfonate	66-27-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.018	NA

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	Methyl parathion	298-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.014	4.6
F039	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
F039	2-Naphthylamine	91-59-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.52	NA
F039	p-Nitroaniline	100-01-6	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.028	28
F039	Nitrobenzene	98-95-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.068	14
F039	5-Nitro-o-toluidine	99-55-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.32	28
F039	p-Nitrophenol	100-02-7	SW-846 8410	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8410	Compliance with LDR treatment standards	0.12	29
F039	N-Nitrosodiethylamine	55-18-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.4	28
F039	N-Nitrosodimethylamine	62-75-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.4	NA
F039	N-Nitroso-di-n-butylamine	924-16-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.4	17
F039	N-Nitrosomethylethylamine	10595-95-6	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.4	2.3
F039	N-Nitrosomorpholine	59-89-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.4	2.3
F039	N-Nitrosopiperidine	100-75-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.013	35
F039	N-Nitrosopyrrolidine	930-55-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.013	35

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin (OCDD)	3268-87-9	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.005
F039	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.005
F039	Parathion	56-38-2	SW-846 8141	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8141	Compliance with LDR treatment standards	0.014	4.6
F039	Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	SW-846 8082	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8082	Compliance with LDR treatment standards	0.1	10
F039	Pentachlorobenzene	608-93-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
F039	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F039	PeCDFs (All Pentachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035	0.001
F039	Pentachloronitrobenzene	82-68-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	4.8
F039	Pentachlorophenol	87-86-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.089	7.4
F039	Phenacetin	62-44-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.081	16
F039	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
F039	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
F039	2,4-Dimethylaniline (2,4-xylidine)	95-68-1	GC	Characterization of waste to confirm generator analysis and determing treatment method	GC	Compliance with LDR treatment standards	0.01	0.66
F039	Phorate	298-02-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.021	4.6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	Phthalic anhydride	85-44-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	NA
F039	Pronamide	23950-58-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.093	1.5
F039	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
F039	Pyridine	110-86-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.014	16
F039	Safrole	94-59-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.081	22
F039	Silvex (2,4,5-TP)	93-72-1	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.72	7.9
F039	2,4,5-T	93-76-5	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.72	7.9
F039	1,2,4,5-Tetrachlorobenzene	95-94-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	14
F039	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F039	TCDFs (All Tetrachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
F039	1,1,1,2-Tetrachloroethane	630-20-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
F039	1,1,2,2-Tetrachloroethane	79-34-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
F039	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
F039	2,3,4,6-Tetrachlorophenol	58-90-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.03	7.4

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
F039	Toxaphene	8001-35-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0095	2.6
F039	Bromoform (Tribromomethane)	75-25-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.63	15
F039	1,2,4-Trichlorobenzene	120-82-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	19
F039	1,1,1-Trichloroethane	71-55-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
F039	1,1,2-Trichloroethane	79-00-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
F039	Trichloroethylene	79-01-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
F039	Trichlorofluoromethane	75-69-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.02	30
F039	2,4,5-Trichlorophenol	95-95-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.18	7.4
F039	2,4,6-Trichlorophenol	88-06-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035	7.4
F039	1,2,3-Trichloropropane	96-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.85	30
F039	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	30
F039	tris(2,3-Dibromopropyl) phosphate	126-72-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	NA
F039	Vinyl chloride	75-01-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.27	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
F039	Antimony	7440-36-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.9	1.15 mg/L TCLP
F039	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
F039	Barium	7440-39-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.2	21 mg/L TCLP
F039	Beryllium	7440-41-7	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82	NA
F039	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.11 mg/L TCLP
F039	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
F039	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
F039	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	NA
F039	Fluoride	16984-48-8	SW-846 9214	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9214	Compliance with LDR treatment standards	35	NA
F039	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
F039	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	0.25 mg/L TCLP
F039	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
F039	Selenium	7782-49-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82	5.7 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
F039	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.43	0.14 mg/L TCLP
F039	Sulfide	8496-25-8	SW-846 9031	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9031	Compliance with LDR treatment standards	14	NA
F039	Thallium	7440-28-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	NA
F039	Vanadium	7440-62-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	4.3	NA
K001	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K001	Pentachlorophenol	87-86-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.089	7.4
K001	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K001	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
K001	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K001	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K001	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K002	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K002	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K003	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K003	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K004	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K004	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K005	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K005	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K005	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K006	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K006	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K006	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K006	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K007	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2,77	0.60 mg/L TCLP
K007	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K007	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K008	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K008	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K009	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K010	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K011	Acetonitrile	75-05-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	38
K011	Acrylonitrile	107-13-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.24	84
K011	Acrylamide	79-06-1	SW-846 8032	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8032	Compliance with LDR treatment standards	19	23
K011	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K011	Cyanide (Total)	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K013	Acetonitrile	75-05-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	38
K013	Acrylonitrile	107-13-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.24	84
K013	Acrylamide	79-06-1	SW-846 8032	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8032	Compliance with LDR treatment standards	19	23
K013	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K013	Cyanide (Total)	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K014	Acetonitrile	75-05-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	38

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K014	Acrylonitrile	107-13-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.24	84
K014	Acrylamide	79-06-1	SW-846 8032	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8032	Compliance with LDR treatment standards	19	23
K014	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K014	Cyanide (Total)	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K015	Anthracene	120-12-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K015	Benzal chloride	98-87-3	SW-846 8121	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8121	Compliance with LDR treatment standards	0.055	6
K015	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K015	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K015	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K015	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K015	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K015	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
K016	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K016	Hexachlorobutadiene	87-68-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	5.6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K016	Hexachlorocyclopentadiene	77-47-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	2.4
K016	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
K016	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
K017	bis(2-Chloroethyl)ether	111-44-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.033	6
K017	1,2-Dichloropropane	78-87-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.85	18
K017	1,2,3-Trichloropropane	96-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.85	30
K018	Chloroethane	75-00-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.27	6
K018	Chloromethane	74-87-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.19	NA
K018	1,1-Dichloroethane	75-34-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	6
K018	1,2-Dichloroethane	107-06-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.21	6
K018	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K018	Hexachlorobutadiene	87-68-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	5.6
K018	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
K018	Pentachloroethane	76-01-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	NA	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K018	1,1,1-Trichloroethane	71-55-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K019	bis(2-Chloroethyl)ether	111-44-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.033	6
K019	Chlorobenzene	108-90-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K019	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K019	p-Dichlorobenzene	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.09	NA
K019	1,2-Dichloroethane	107-06-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.21	6
K019	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	NA
K019	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
K019	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K019	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K019	1,2,4,5-Tetrachlorobenzene	95-94-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	NA
K019	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
K019	1,2,4-Trichlorobenzene	120-82-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	19
K019	1,1,1-Trichloroethane	71-55-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K020	1,2-Dichloroethane	107-06-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.21	6
K020	1,1,2,2-Tetrachloroethane	79-34-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K020	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
K021	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K021	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K021	Antimony	7440-36-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.9	1.15 mg/L TCLP
K022	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K022	Acetophenone	96-86-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.01	9.7
K022	Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.92	13
K022	Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	HPLC	Characterization of waste to confirm generator analysis and determing treatment method	HPLC	Compliance with LDR treatment standards	0.92	13
K022	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K022	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K022	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
K023	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K023	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28
K024	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28
K024	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28
K025	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	LLEXT fb SSTRP fb CARBN; or CMBST	CMBST
K026	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST	CMBST
K027	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
K028	1,1-Dichloroethane	75-34-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	6
K028	trans-1,2-Dichloroethylene	156-60-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	30
K028	Hexachlorobutadiene	87-68-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	5.6
K028	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
K028	Pentachloroethane	76-01-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	NA	6
K028	1,1,1,2-Tetrachloroethane	630-20-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K028	1,1,2,2-Tetrachloroethane	79-34-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K028	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K028	1,1,1-Trichloroethane	71-55-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K028	1,1,2-Trichloroethane	79-00-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K028	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K028	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K028	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K028	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
K029	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K029	1,2-Dichloroethane	107-06-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.21	6
K029	1,1-Dichloroethylene	75-35-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.025	6
K029	1,1,1-Trichloroethane	71-55-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K029	Vinyl chloride	75-01-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.27	6
K030	o-Dichlorobenzene	95-50-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.088	NA
K030	p-Dichlorobenzene	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.09	NA
K030	Hexachlorobutadiene	87-68-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	5.6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K030	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
K030	Hexachloropropylene	1888-71-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	NA	30
K030	Pentachlorobenzene	608-93-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	NA	10
K030	Pentachloroethane	76-01-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	NA	6
K030	1,2,4,5-Tetrachlorobenzene	95-94-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	14
K030	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
K030	1,2,4-Trichlorobenzene	120-82-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	19
K031	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
K032	Hexachlorocyclopentadiene	77-47-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	2.4
K032	Chlordane (alpha and gamma isomers)	57-74-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0033	0.26
K032	Heptachlor	76-44-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0012	0.066
K032	Heptachlor epoxide	1024-57-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.016	0.066
K033	Hexachlorocyclopentadiene	77-47-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	2.4
K034	Hexachlorocyclopentadiene	77-47-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	2.4

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K035	Acenaphthene	83-32-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	NA	3.4
K035	Anthracene	120-12-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	NA	3.4
K035	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K035	Bemzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K035	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K035	o-Cresol	95-48-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.11	5.6
K035	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
K035	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
K035	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	NA	8.2
K035	Fluoranthene	206-44-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.068	3.4
K035	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	NA	3.4
K035	Indeno(1,2,3-cd)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	NA	3.4
K035	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K035	Phenanthrene	85-01-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K035	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K035	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
K036	Disulfoton	298-04-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	6.2
K037	Disulfoton	298-04-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	6.2
K037	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K038	Phorate	298-02-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.021	4.6
K039	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
K040	Phorate	298-02-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.021	4.6
K041	Toxaphene	8001-35-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0095	2.6
K042	o-Dichlorobenzene	95-50-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.088	6
K042	p-Dichlorobenzene	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.09	6
K042	Pentachlorobenzene	608-93-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K042	1,2,4,5-Tetrachlorobenzene	95-94-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	14
K042	1,2,4-Trichlorobenzene	120-82-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	19

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K043	2,4-Dichlorophenol	120-83-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.044	14
K043	2,6-Dichlorophenol	87-65-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.044	14
K043	2,4,5-Trichlorophenol	95-95-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.18	7.4
K043	2,4,6-Trichlorophenol	88-06-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035	7.4
K043	2,3,4,6-Tetrachlorophenol	58-90-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.03	7.4
K043	Pentachlorophenol	87-86-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.089	7.4
K043	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
K043	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
K043	HxCDFs (All Hexachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
K043	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
K043	PeCDFs (All Pentachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035	0.001
K043	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
K043	TCDFs (All Tetrachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
K044	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	DEACT	DEACT

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K045	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	DEACT	DEACT
K046	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K047	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	DEACT	DEACT
K048	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K048	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K048	bis(2-Ethylhexyl)phthalate	117-81-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.28	28
K048	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K048	Di-n-butyl phthalate	84-74-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	28
K048	Ethylbenzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
K048	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	NA
K048	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K048	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K048	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K048	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K048	Toluene	108-88-33	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K048	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K048	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K048	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K048	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K048	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	11 mg/L TCLP
K049	Anthracene	120-12-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K049	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K049	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K049	bis(2-Ethylhexyl)phthalate	117-81-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.28	28
K049	Carbon disulfide	75-15-0	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	3.8	NA
K049	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K049	2,4-Dimethylphenol	105-67-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.036	NA
K049	Ethylbenzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K049	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K049	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K049	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K049	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
K049	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K049	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K049	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K049	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K049	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K049	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	11 mg/L TCLP
K050	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K050	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K050	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K050	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K050	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K050	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	11 mg/L TCLP
K051	Acenaphthene	83-32-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	NA
K051	Anthracene	120-12-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K051	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K051	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K051	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K051	bis(2-Ethylhexyl)phthalate	117-81-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.28	28
K051	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K051	Di-n-butyl phthalate	105-67-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	28
K051	Ethylbenzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
K051	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	NA
K051	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K051	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K051	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K051	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
K051	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K051	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K051	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K051	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K051	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K051	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	11 mg/L TCLP
K052	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K052	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K052	o-Cresol	95-48-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.11	5.6
K052	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
K052	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
K052	2,4-Dimethylphenol	105-67-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.036	NA

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K052	Ethylbenzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
K052	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K052	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K052	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K052	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K052	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K052	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K052	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K052	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K052	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	11 mg/L TCLP
K060	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K060	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K060	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K060	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K060	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K061	Antimony	7440-36-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	1.15 mg/L TCLP
K061	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	5.0 mg/L TCLP
K061	Barium	7440-39-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	21 mg/L TCLP
K061	Beryllium	7440-41-7	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	1.22 mg/L TCLP
K061	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.11 mg/L TCLP
K061	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K061	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K061	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.025 mg/L TCLP
K061	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
K061	Selenium	7782-49-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	5.7 mg/L TCLP
K061	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.14 mg/L TCLP
K061	Thallium	7440-28-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	0.20 mg/L TCLP
K061	Zinc	7440-66-6	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	4.3 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K062	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K062	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K062	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	NA
K069	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.11 mg/L TCLP
K069	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K069	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	NA	RLEAD
K071	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.20 mg/L TCLP
K071	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.025 mg/L TCLP
K071	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	NA
K073	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K073	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K073	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
K073	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
K073	1,1,1-Trichloroethane	71-55-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K083	Aniline	62-53-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.81	14
K083	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K083	Cyclohexanone	108-94-1	SW-846 8315	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8315	Compliance with LDR treatment standards	0.36	NA
K083	Diphenylamine (difficult to distinguish from diphenylnitrosamine	122-39-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.92	13
K083	Diphenylnitrosamine (difficult to distinguish from diphenylamine)	86-30-6	HPLC	Characterization of waste to confirm generator analysis and determing treatment method	HPLC	Compliance with LDR treatment standards	0.92	13
K083	Nitrobenzene	98-95-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.068	14
K083	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K083	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
K084	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
K085	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K085	Chlorobenzene	108-90-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K085	m-Dichlorobenzene	541-73-1	SW-846 8410	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8410	Compliance with LDR treatment standards	0.036	6
K085	o-Dichlorobenzene	95-50-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.088	6
K085	p-Dichlorobenzene	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.09	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K085	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K085	Total PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	SW-846 8082	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8082	Compliance with LDR treatment standards	0.1	10
K085	Pentachlorobenzene	608-93-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K085	1,2,4,5-Tetrachlorobenzene	95-94-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	14
K085	1,2,4-Trichlorobenzene	120-82-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	19
K086	Acetone	67-64-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	160
K086	Acetophenone	96-86-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.01	9.7
K086	bis(2-Ethylhexyl) phthalate	117-81-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.28	28
K086	n-Butyl alcohol	71-36-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	2.6
K086	Butylbenzyl phthalate	85-68-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	28
K086	Cyclohexanone	108-94-1	SW-846 8315	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8315	Compliance with LDR treatment standards	0.36	NA
K086	o-Dichlorobenzene	95-50-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.088	6
K086	Diethyl phthalate	84-66-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.2	28
K086	Dimethyl phthalate	131-11-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.047	28

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K086	Di-n-butyl phthalate	84-74-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	28
K086	Di-n-octyl phthalate	117-84-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	28
K086	Ethyl acetate	141-78-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.34	33
K086	Ethylbenzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
K086	Methanol	67-56-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	NA
K086	Methyl ethyl ketone	78-93-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	36
K086	Methyl isobutyl ketone	108-10-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	33
K086	Methylene chloride	75-09-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.089	30
K086	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K086	Nitrobenzene	98-95-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.068	14
K086	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K086	1,1,1-Trichloroethane	71-55-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K086	Trichloroethylene	79-01-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K086	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K086	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K086	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K086	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K087	Acenaphthylene	208-96-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K087	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K087	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K087	Fluoranthene	206-44-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.068	3.4
K087	Indeno(1,2,3-cd)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
K087	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K087	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K087	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K087	Xylenes-mixed isomers (sum of o, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K087	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K088	Acenaphthene	83-32-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K088	Anthracene	120-12-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K088	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K088	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K088	Benzo(b)fluoranthene	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K088	Benzo(k)fluoranthene	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K088	Benzo(g,h,i)perylene	191-24-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	1.8
K088	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K088	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
K088	Fluoranthene	206-44-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.068	3.4
K088	Indeno(1,2,3,-cd)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
K088	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K088	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
K088	Antimony	7440-36-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.9	1.15 mg/L TCLP
K088	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	26.1

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K088	Barium	7440-39-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.2	21 mg/L TCLP
K088	Beryllium	7440-41-7	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82	1.22 mg/L TCLP
K088	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.11 mg/L TCLP
K088	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K088	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K088	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	0.025 mg/L TCLP
K088	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
K088	Selenium	7782-49-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82	5.7 mg/L TCLP
K088	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.43	0.14 mg/L TCLP
K088	Cyanide (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K088	Cyanide (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
K088	Fluoride	16984-48-8	SW-846 9214	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9214	Compliance with LDR treatment standards	35	NA
K093	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28
K093	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K094	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28
K094	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28
K095	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
K095	Pentachloroethane	76-01-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	6
K095	1,1,1,2-Tetrachloroethane	630-20-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K095	1,1,2,2-Tetrachloroethane	79-34-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K095	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
K095	1,1,2-Trichloroethane	79-00-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K095	Trichloroethylene	79-01-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K096	m-Dichlorobenzene	541-73-1	SW-846 8410	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8410	Compliance with LDR treatment standards	0.036	6
K096	Pentachloroethane	76-01-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	6
K096	1,1,1,2-Tetrachloroethane	630-20-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K096	1,1,2,2-Tetrachloroethane	79-34-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K096	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K096	1,2,4-Trichlorobenzene	120-82-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	19
K096	1,1,2-Trichloroethane	79-00-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K096	Trichloroethylene	79-01-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
K097	Chlordane (alpha and gamma isomers)	57-74-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0033	0.26
K097	Heptachlor	76-44-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0012	0.066
K097	Heptachlor epoxide	1024-57-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.016	0.066
K097	Hexachlorocyclopentadiene	77-47-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	2.4
K098	Toxaphene	8001-35-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0095	2.6
K099	2,4-Dichlorophenoxyacetic acid	94-75-7	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.72	10
K099	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
K099	HxCDFs (All Hexachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
K099	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
K099	PeCDFs (All Pentachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035	0.001
K099	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K099	TCDFs (All Tetrachlorodibenzofurans)	NA	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063	0.001
K100	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.11 mg/L TCLP
K100	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
K100	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K101	o-Nitroaniline	88-74-4	SW-846 8410	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8410	Compliance with LDR treatment standards	0.27	14
K101	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
K101	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K101	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K101	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	NA
K102	o-Nitrophenol	88-75-5	SW-846 8410	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8410	Compliance with LDR treatment standards	0.028	13
K102	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
K102	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K102	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	NA
K102	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	NA

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K103	Aniline	62-53-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.81	14
K103	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K103	2,4-Dinitrophenol	51-28-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.12	160
K103	Nitrobenzene	98-95-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.068	14
K103	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K104	Aniline	62-53-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.81	14
K104	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K104	2,4-Dinitrophenol	51-28-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.12	160
K104	Nitrobenzene	98-95-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.068	14
K104	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K104	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
K105	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K105	Chlorobenzene	108-90-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K105	2-Chlorophenol	95-57-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.044	5.7

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K105	o-Dichlorobenzene	95-50-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.088	6
K105	p-Dichlorobenzene	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.09	6
K105	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K105	2,4,5-Trichlorophenol	95-95-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.18	7.4
K105	2,4,6-Trichlorophenol	88-06-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035	7.4
K106	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	RMERC
K106	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.20 mg/L TCLP
K106	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.025 mg/L TCLP
K106	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	NA
K107	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K108	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K109	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K110	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K111	2,4-Dinitrotoluene	121-14-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.32	140

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K111	2,6-Dinitrotoluene	606-20-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.55	28
K112	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb CARBN; or BIODG fb CARBN	CMBST
K113	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
K114	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
K115	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
K115	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
K116	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
K117	Methyl bromide (Bromomethane)	74-83-9	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15
K117	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K117	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.028	15
K118	Methyl bromide (Bromomethane)	74-83-9	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15
K118	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K118	Ethylene dibromide (1,2,-Dibromoethane)	106-93-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.028	15
K123	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K124	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K125	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K126	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb (BIODG or CARBN)	CMBST
K131	Methyl bromide (Bromomethane)	74-83-9	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15
K132	Methyl bromide (Bromomethane)	74-83-9	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15
K136	Methyl bromide (Bromomethane)	74-83-9	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15
K136	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.46	6
K136	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.028	15
K141	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K141	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K141	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K141	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K141	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K141	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K141	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
K141	Indeno(1,2,3-cd)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
K142	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K142	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K142	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K142	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K142	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K142	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K142	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
K142	Indeno(1,2,3-cd)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
K143	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K143	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K143	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K143	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K143	Benzo(k)flouranthene (difficult to distinguish from benzo(b)fluoranthene	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K143	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K144	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K144	Benz(a)pyrene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K144	Benzo(a)anthracene	56-55-3	SW-846 8269	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8269	Compliance with LDR treatment standards	0.061	3.4
K144	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K144	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K144	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K144	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
K145	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K145	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K145	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K145	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K145	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K145	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K147	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K147	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K147	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K147	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K147	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K147	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K147	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
K147	Indeno(1,2,3-cd)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
K148	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K148	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
K148	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K148	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	6.8
K148	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K148	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
K148	Indeno(1,2,3-cd)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
K149	Chlorobenzene	108-90-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K149	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K149	Chloromethane	74-87-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.19	30
K149	p-Dichlorobenzene	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.09	6
K149	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K149	Pentachlorobenzene	608-93-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K149	1,2,4,5-Tetrachlorobenzene	95-94-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	14
K149	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K150	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K150	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K150	Chloromethane	74-87-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.019	30
K150	p-Dichlorobenzene	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.09	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K150	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K150	Pentachlorobenzene	608-93-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K150	1,2,4,5-Tetrachlorobenzene	95-94-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	14
K150	1,1,2,2-Tetrachloroethane	79-34-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K150	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
K150	1,2,4-Trichlorobenzene	120-82-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	19
K151	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K151	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K151	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K151	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K151	Pentachlorobenzene	608-93-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
K151	1,2,4,5-Tetrachlorobenzene	95-94-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	14
K151	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
K151	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K156	Acetonitrile	75-05-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	1.8
K156	Acetophenone	98-86-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.01	9.7
K156	Aniline	62-53-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.81	14
K156	Benomyl[10]	17804-35-2	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K156	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K156	Carbaryl[10]	63-25-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
K156	Carbenzadim[10]	10605-21-7	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K156	Carbofuran[10]	1563-66-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
K156	Carbosulfan[10]	55285-14-8	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K156	Chlorobenzene	108-90-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K156	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K156	o-Dichlorobenzene	95-50-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.088	6
K156	Methomyl[10]	16752-77-5	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
K156	Methylene chloride	75-09-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.089	30

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K156	Methyl ethyl ketone	78-93-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	36
K156	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K156	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K156	Pyridine	110-86-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.014	16
K156	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K156	Triethylamine	121-44-8	SW-846 8015	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8015	Compliance with LDR treatment standards	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
K157	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
K157	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K157	Chloromethane	74-87-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.19	30
K157	Methomyl[10]	16752-77-5	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.028; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
K157	Methylene chloride	75-09-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.089	30
K157	Methylethyl ketone	78-93-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	36
K157	Pyridine	110-86-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.014	16
K157	Triethylamine	121-44-8	SW-846 8015	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8015	Compliance with LDR treatment standards	0.081 or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K158	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K158	Carbenzadim[10]	10605-21-7	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K158	Carbofuran[10]	1563-66-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
K158	Carbosulfan[10]	55285-14-8	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K158	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
K158	Methylene chloride	75-09-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.089	30
K158	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
K159	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K159	Butylate[10]	2008-41-5	SW-846 8141	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8141	Compliance with LDR treatment standards	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K159	EPTC (Eptam)[10]	759-94-4	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K159	Molinate[10]	2212-67-1	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K159	Pebulate[10]	1114-71-2	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K159	Vernolate[10]	1929-77-7	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
K161	Antimony	7440-36-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.9	1.15 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K161	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
K161	Carbon disulfide	75-15-0	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	3.8	4.8 mg/L TCLP
K161	Dithiocarbamates (total)[10]	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
K161	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K161	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11.0 mg/L TCLP
K161	Selenium	7782-49-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82	5.7 mg/L TCLP
K169	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K169	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K169	Benzo(g,h,i)perylene	191-24-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	1.8
K169	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K169	Ethyl benzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
K169	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K169	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K169	Phenanthrene	81-05-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K169	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
K169	Toluene (Methyl Benzene)	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K169	Xylene(s) (Total)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K170	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K170	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K170	Benzo(g,h,i)perylene	191-24-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	1.8
K170	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K170	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
K170	Ethyl benzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
K170	Fluorene	86-73-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K170	Indeno(1,3,4-cd)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
K170	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K170	Phenanthrene	81-05-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K170	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K170	Toluene (Methyl Benzene)	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K170	Xylene(s) (Total)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K171	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K171	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K171	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
K171	Ethyl benzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	10
K171	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
K171	Phenanthrene	81-05-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
K171	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.67	8.2
K171	Toluene (Methyl Benzene)	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K171	Xylene(s) (Total)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K171	Arsenic	7740-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5 mg/L TCLP
K171	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11.0 mg/L TCLP
K171	Vanadium	7440-62-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	4.3	1.6 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K171	Reactive sulfides	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	DEACT	DEACT
K172	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10
K172	Ethyl benzene	100-41-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.57	10
K172	Toluene (Methyl Benzene)	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
K172	Xylene(s) (Total)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
K172	Antimony	7740-36-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.9	1.15 mg/L TCLP
K172	Arsenic	7740-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5 mg/L TCLP
K172	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11.0 mg/L TCLP
K172	Vanadium	7440-62-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	4.3	1.6 mg/L TCLP
K172	Reactive sulfides	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	DEACT	DEACT
K174	1,2,3,4,6,7,8-Heptachlorodibenzo-*p*-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035 or CMBST[11]	0.0025 or CMBST[11]
K174	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035 or CMBST[11]	0.0025 or CMBST[11]
K174	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035 or CMBST[11]	0.0025 or CMBST[11]
K174	HxCDDs (All Hexachlorodibenzo-*p*-dioxins)	34465-46-8	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K174	HxCDFs (All Hexachlorodibenzofurans)	55684-94-1	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]
K174	1,2,3,4,6,7,8,9-Octachlorodibenzo-*p*-dioxin (OCDD)	3268-87-9	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.005 or CMBST[11]
K174	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.005 or CMBST[11]
K174	PeCDDs (All Pentachlorodibenzo-*p*-dioxins	36088-22-9	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]
K174	PeCDFs (All Pentachlorodibenzofurans)	30402-15-4	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035 or CMBST[11]	0.001 or CMBST[11]
K174	TCDDs (All tetachlorodibenzo-*p*-dioxins)	41903-57-5	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]
K174	TCDFs (All tetrachlorodibenzofurans)	55722-27-5	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]
K174	Arsenic	7440-36-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
K175	Mercury[12]	7438-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.025 mg/L TCLP
K175	pH[12]		SW-846 9040	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9040	Compliance with LDR treatment standards	NA	pH≤6.0
K175	Mercury	7438-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	NA
K176	Antimony	7440-36-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.9	1.15 mg/L TCLP
K176	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
K176	Cadmium	7440-43-9	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.11 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K176	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K176	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	0.025 mg/L TCLP
K177	Antimony	7440-36-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.9	1.15 mg/L TCLP
K177	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
K177	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
K178	1,2,3,4,6,7,8- Heptachlorodibenzo-*p*-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-39-4	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035 or CMBST[11]	0.0025 or CMBST[11]
K178	1,2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF	67562-39-4	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035 or CMBST[11]	0.0025 or CMBST[11]
K178	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035 or CMBST[11]	0.0025 or CMBST[11]
K178	HxCDDs (All Hexachlorodibenzo-*p*-dioxins)	34465-46-8	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]
K178	HxCDFs (All Hexachlorodibenzo-furans)	55684-94-1	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]
K178	1,2,3,4,6,7,8,9- Octachlorodibenzo-*p*-dioxin (OCDD)	3268-87-9	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.005 or CMBST[11]
K178	1,2,3,4,6,7,8,9- Octachlorodibenzofuran (OCDF)	39001-02-0	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.005 or CMBST[11]
K178	PeCDDs (All Pentachlorodibenzo-*p*-dioxins)	36088-22-9	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]
K178	PeCDFs (All Pentachlorodibenzo-furans)	30402-15-4	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000035 or CMBST[11]	0.001 or CMBST[11]

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
K178	TCDDs (All tetrachlorodibenzo-*p*-dioxins)	41903-57-5	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]
K178	TCDFs (All tetrachlorodibenzo-furans)	55722-27-5	SW-846 8280	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8280	Compliance with LDR treatment standards	0.000063 or CMBST[11]	0.001 or CMBST[11]
K178	Thallium	7440-28-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	0.20 mg/L TCLP
K181	Aniline	62-53-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.81	14
K181	o-Anisidine (2-methoxyaniline)	90-04-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.01	0.66
K181	4-Chloroaniline	106-47-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.46	16
K181	p-Cresidine	120-71-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.01	0.66
K181	2,4-Dimethylaniline (2,4-xylidine)	95-68-1	GC	Characterization of waste to confirm generator analysis and determing treatment method	GC	Compliance with LDR treatment standards	0.01	0.66
K181	1,2-Phenylenediamine	95-54-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG
K181	1,3-Phenylenediamine	108-45-2	GC	Characterization of waste to confirm generator analysis and determing treatment method	GC		0.01	0.66
P001	Warfarin	81-81-2	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P002	1-Acetyl-2-thiourea	591-08-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P003	Acrolein	107-02-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.29	CMBST
P004	Aldrin	309-00-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.021	0.066

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P005	Allyl alcohol	107-18-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P006	Aluminum phosphide	20859-73-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P007	5-Aminomethyl 3-isoxazolol	2763-96-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P008	4-Aminopyridine	504-24-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P009	Ammonium picrate	131-74-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P010	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
P011	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
P012	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
P013	Barium	7440-39-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	NA	21 mg/L TCLP
P030	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P030	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P014	Thiophenol (Benzene thiol)	108-98-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P015	Beryllium	7440-41-7	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	RMETL; or RTHRM	RMETL; or RTHRM
P016	Dichloromethyl ether	542-88-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P017	Bromoacetone	598-31-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P018	Brucine	357-57-3	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P020	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	88-85-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.066	2.5
P021	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P021	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P022	Carbon disulfide	75-15-0	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	3.8	CMBST
P022	Carbon disulfide; alternate[6] standard for nonwastewaters only	75-15-0	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	NA	4.8 mg/L TCLP
P023	Chloroacetaldehyde	107-20-0	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P024	p-Chloroaniline	106-47-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.46	16
P026	1-(o-Chlorophenyl)thiourea	5344-82-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P027	3-Chloropropionitrile	542-76-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P028	Benzyl chloride	100-44-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P029	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P029	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P030	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P030	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P031	Cyanogen	460-19-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P033	Cyanogen chloride	506-77-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST
P034	2-Cyclohexyl-4,6-dinitrophenol	131-89-5	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P036	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
P037	Dieldrin	60-57-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	0.13
P038	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
P039	Disulfoton	298-04-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	6.2
P040	0,0-Diethyl O-pyrazinyl phosphorothioate	297-97-2	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
P041	Diethyl-p-nitrophenyl phosphate	311-45-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
P042	Epinephrine	51-43-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P043	Diisopropylfluorophosphate (DFP)	55-91-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
P044	Dimethoate	60-51-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	CARBN; or CMBST	CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P045	Thiofanox	39196-18-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P046	alpha, alpha-Dimethylphenethylamine	122-09-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P047	4,6-Dinitro-o-cresol	543-52-1	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.28	160
P047	NA	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P048	2,4-Dinitrophenol	51-28-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.12	160
P049	Dithiobiuret	541-53-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P050	Endosulfan I	939-98-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.023	0.066
P050	Endosulfan II	33213-6-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.029	0.13
P050	Endosulfan sulfate	1031-07-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.029	0.13
P051	Endrin	72-20-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0028	0.13
P051	Endrin aldehyde	7421-93-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.025	0.13
P054	Aziridine	151-56-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P056	Fluoride (measured in wastewaters only)	16984-48-8	SW-846 9214	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9214	Compliance with LDR treatment standards	35	ADGAS fb NEUTR
P057	Fluoroacetamide	640-19-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P058	Fluoroacetic acid, sodium salt	62-74-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P059	Heptachlor	76-44-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0012	0.066
P059	Heptachlor epoxide	1024-57-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.016	0.066
P060	Isodrin	465-73-6	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.021	0.066
P062	Hexaethyl tetraphosphate	757-58-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
P063	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P063	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P064	Isocyanic acid, ethyl ester	624-83-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P065	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	IMERC
P065	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	RMERC
P065	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.20 mg/L TCLP
P065	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.025 mg/L TCLP
P065	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	NA
P066	Methomyl	16752-77-5	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P067	2-Methyl-aziridine	75-55-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P068	Methyl hydrazine	60-34-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P069	2-Methyllactonitrile	75-86-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P070	Aldicarb	116-06-3	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P071	Methyl parathion	298-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.014	4.6
P072	1-Naphthyl-2-thiourea	86-88-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P073	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
P074	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P074	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P074	Nickel	7440-02-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	3.98	11 mg/L TCLP
P075	Nicotine and salts	54-11-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P076	Nitric oxide	10102-43-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	ADGAS	ADGAS
P077	p-Nitroaniline	100-01-6	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.028	28
P078	Nitrogen dioxide	10102-44-0	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	ADGAS	ADGAS

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P081	Nitroglycerin	55-63-0	SW-846 8095	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8095	Compliance with LDR treatment standards	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P082	N-Nitrosodimethylamine	62-75-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.4	2.3
P084	N-Nitrosomethylvinylamine	4549-40-0	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P085	Octamethylpyrophosphoramide	152-16-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
P087	Osmium tetroxide	20816-12-0	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	RMETL; or RTHRM	RMETL; or RTHRM
P088	Endothall	145-73-3	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P089	Parathion	56-38-2	SW-846 8141	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8141	Compliance with LDR treatment standards	0.014	4.6
P092	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	IMERC; or RMERC
P092	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	RMERC
P092	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.20 mg/L TCLP
P092	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.025 mg/L TCLP
P092	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	NA
P093	Phenylthiourea	103-85-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P094	Phorate	298-02-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.021	4.6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P095	Phosgene	75-44-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P096	Phosphine	7803-51-2	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P097	Famphur	52-85-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	15
P098	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P098	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P099	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P099	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P099	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.43	0.14 mg/L TCLP
P101	Ethyl cyanide (Propanenitrile)	107-12-0	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.24	360
P102	Propargyl alcohol	107-19-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P103	Selenium	7782-49-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82	5.7 mg/L TCLP
P104	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P104	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P104	Silver	7440-22-4	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.43	0.14 mg/L TCLP

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P105	Sodium azide	26628-22-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P106	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P106	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P108	Strychnine and salts	57-24-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P109	Tetraethyldithiopyrophosphate	3689-24-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	CARBN; or CMBST	CMBST
P110	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
P111	Tetraethylpyrophosphate	107-49-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	CARBN; or CMBST	CMBST
P112	Tetranitromethane	509-14-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
P113	Thallium (measured in wastewaters only)	7440-28-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	RTHRM; or STABL
P114	Selenium	7782-49-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82	5.7 mg/L TCLP
P115	Thallium (measured in wastewaters only)	7440-28-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	RTHRM; or STABL
P116	Thiosemicarbazide	79-19-6	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P118	Trichloromethanethiol	75-70-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
P119	Vanadium (measured in wastewaters only)	7440-62-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	4.3	STABL

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P120	Vanadium (measured in wastewaters only)	7440-62-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	4.3	STABL
P121	Cyanides (Total)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	1.2	590
P121	Cyanides (Amenable)[7]	57-12-5	SW-846 9010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9010	Compliance with LDR treatment standards	0.86	30
P122	Zinc Phosphide	1314-84-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
P123	Toxaphene	8001-35-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0095	2.6
P127	Carbofuran	1563-66-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
P128	Mexacarbate	315-18-4	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P185	Tirpate	26419-73-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P188	Physostigmine salicylate	57-64-7	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P189	Carbosulfan	55285-14-8	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.028; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P190	Metolcarb	1129-41-5	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P191	Dimetilan	644-64-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P192	Isolan	119-38-0	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P194	Oxamyl	23135-22-0	SW-846 8318	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8318	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
P196	Dithiocarbamates (total)	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
P197	Formparante	17702-57-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P198	Formetanate hydrochloride	23422-53-9	SW-846 8318	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8318	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P199	Methiocarb	2032-65-7	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P201	Promecarb	2631-37-0	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P202	m-Cumenyl methylcarbamate	64-00-6	SW-846 321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P203	Aldicarb sulfone	1646-88-4	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	0.28; or CMBST
P204	Physostigmine	57-47-6	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
P205	Dithiocarbamates (total)	NA	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.028; or CMBST, CHOXD, BIODG or CARBN	28; or CMBST
U001	Acetaldehyde	75-07-0	SW-846 8315	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8315	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U002	Acetone	67-64-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	160
U003	Acetonitrile	75-05-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	CMBST
U003	Acetonitrile; alternate[6] standard for nonwastewaters only	75-05-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	NA	38
U004	Acetophenone	98-86-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.01	9.7

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U005	2-Acetylaminofluorene	53-96-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	140
U006	Acetyl Chloride	75-36-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U007	Acrylamide	79-06-1	SW-846 8032	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8032	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U008	Acrylic acid	79-10-7	SW-846 8032	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8032	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U009	Acrylonitrile	107-13-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.24	84
U010	Mitomycin C	50-07-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U011	Amitrole	61-82-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U012	Aniline	62-53-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.81	14
U014	Auramine	492-80-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U015	Azaserine	115-02-6	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U016	Benz(c)acridine	225-51-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U017	Benzal chloride	98-87-3	SW-846 8121	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8121	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U018	Benz(a)anthracene	56-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
U019	Benzene	71-43-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	10

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U020	Benzenesulfonyl chloride	98-09-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U021	Benzidine	92-87-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U022	Benzo(a)pyrene	50-32-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.061	3.4
U023	Benzotrichloride	98-07-7	SW-846 8121	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8121	Compliance with LDR treatment standards	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOCS; CHRED; or CMBST
U024	bis(2)Chloroethoxy)methane	111-91-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.036	7.2
U025	bis(2-Chloroethyl)ether	111-44-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.033	6
U026	Chlornaphazine	494-03-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U027	bis(2-Chloroisopropyl)ether	39638-32-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	7.2
U028	bis(2-Ethylhexyl) phthalate	117-81-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.28	28
U029	Methyl bromide (Bromomethane)	74-83-9	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15
U030	4-Bromophenyl phenyl ether	101-55-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	15
U031	n-Butyl alcohol	71-36-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	2.6
U032	Chromium (Total)	7440-47-3	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	2.77	0.60 mg/L TCLP
U033	Carbon oxyfluoride	353-50-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U034	Trichloroacetaldehyde (Chloral)	75-87-6	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U035	Chlorambucil	305-03-3	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U036	Chlordane (alpha and gamma isomers)	57-74-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0033	0.26
U037	Chlorobenzene	108-90-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	60
U038	Chlorobenzilate	510-15-6	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.1	CMBST
U039	p-Chloro-m-cresol	59-50-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.018	14
U041	Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106-89-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U042	2-Chloroethyl vinyl ether	110-75-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.062	CMBST
U043	Vinyl chloride	75-01-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.27	6
U044	Chloroform	67-66-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.046	6
U045	Chloromethane (Methyl chloride)	74-87-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.19	30
U046	Chloromethyl methyl ether	107-30-2	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U047	2-Chloronaphthalene	91-58-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	5.6
U048	2-Chlorophenol	95-57-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.044	5.7

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U049	4-Chloro-o-toluidine hydrochloride	3165-93-3	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U050	Chrysene	218-01-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	3.4
U051	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
U051	Pentachlorophenol	87-86-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.089	7.4
U051	Phenanthrene	85-01-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.059	5.6
U051	Pyrene	129-00-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.067	8.2
U051	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
U051	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
U051	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
U052	o-Cresol	95-48-7	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.11	5.6
U052	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
U052	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.77	5.6
U052	Cresol-mixed isomers (Cresylic acid) (sum of o- m-, and p-cresol concentrations)	1319-77-3	SW-846 8041	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8041	Compliance with LDR treatment standards	0.88	11.2
U053	Crotonaldehyde	4170-30-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U055	Cumene	98-82-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U056	Cyclohexane	110-82-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U057	Cyclohexanone	108-94-1	SW-846 8315	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8315	Compliance with LDR treatment standards	0.36	CMBST
U057	Cyclohexanone; alternate[6] standard for nonwastewaters only	108-94-1	SW-846 8315	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8315	Compliance with LDR treatment standards	NA	0.75 mg/L TCLP
U058	Cyclophosphamide	50-18-0	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
U059	Daunomycin	20830-81-3	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U060	o,p′-DDD	53-19-0	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.023	0.087
U060	p,p′-DDD	72-54-8	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.023	0.087
U061	o-p′-DDT	789-02-6	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.0039	0.087
U061	p,p′-DDT	50-29-3	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.0039	0.087
U061	o,p′-DDD	53-19-0	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.023	0.087
U061	p,p′-DDD	72-54-8	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.023	0.087
U061	o,p′-DDE	3424-82-6	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.031	0.087
U061	p,p′-DDE	72-55-9	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.031	0.087

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U062	Diallate	2303-16-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U063	Dibenz(a,h)anthracene	53-70-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	8.2
U064	Dibenz(a,i)pyrene	189-55-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U066	1,2-Dibromo-3-chloropropane	96-12-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.11	15
U067	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.028	15
U068	Dibromomethane	74-95-3	SW-846 8261	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8261	Compliance with LDR treatment standards	0.11	15
U069	Di-n-butyl phthalate	84-74-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	28
U070	o-Dichlorobenzene	95-50-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.088	6
U071	m-Dichlorobenzene	541-73-1	SW-846 8410	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8410	Compliance with LDR treatment standards	0.036	6
U072	p-Dichlorobenzene	106-46-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.09	6
U073	3,3′-Dichlorobenzidine	91-94-1	SW-846 8325	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8325	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U074	cis,1,4-Dichloro-2-butene	1476-11-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U074	trans-1,4-Dichloro-2-butene	764-41-0	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U075	Dichlorodifluoromethane	75-71-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.23	7.2

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U076	1,1-Dichloroethane	75-34-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	6
U077	1,2-Dichloroethane	107-06-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.21	6
U078	1,1-Dichloroethylene	75-35-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.025	6
U079	trans-1,2-Dichloroethylene	156-60-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	30
U080	Methylene chloride	75-09-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.089	30
U081	2,4-Dichlorophenol	120-83-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.044	14
U082	2,6-Dichlorophenol	87-65-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.044	14
U083	1,2-Dichloropropane	78-87-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.85	18
U084	cis-1,3-Dichloropropylene	10061-01-5	SW-846 8021	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8021	Compliance with LDR treatment standards	0.036	18
U084	trans-1,3-Dichloropropylene	10061-02-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.036	18
U085	1,2,3,4-Diepoxybutane	1464-53-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U086	N,N′-Diethylhydrazine	1615-80-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U087	O,O-Diethyl S-methyldithiophosphate	3288-58-2	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
U088	Diethyl phthalate	84-66-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.2	28

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U089	Diethyl stilbestrol	56-53-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U090	Dihydrosafrole	94-58-6	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U091	3,3′-Dimethoxybenzidine	119-90-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U092	Dimethylamine	124-40-3	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U093	p-Dimethylaminoazobenzene	60-11-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.13	CMBST
U094	7,12-Dimethylbenz(a)anthracene	57-97-6	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U095	3,3′-Dimethylbenzidine	119-93-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U096	alpha, alpha-Dimethyl benzyl hydroperoxide	80-15-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBSt	CHOXD, CHRED; or CMBST
U097	Dimethylcarbamoyl chloride	79-44-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U098	1,1-Dimethylhydrazine	57-14-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U099	1,2-Dimethylhydrazine	540-73-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U101	2,4-Dimethylphenol	105-67-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.036	14
U102	Dimethyl phthalate	131-11-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.047	28
U103	Dimethyl sulfate	77-78-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U105	2,4-Dinitrotoluene	121-14-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.32	140
U106	2,6-Dinitrotoluene	606-20-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.55	28
U107	Di-n-octyl phthalate	117-84-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.017	28
U108	1,4-Dioxane	123-91-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U108	1,4-Dioxane, alternate[6]	123-91-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	12	170
U109	1,2-Diphenylhydrazine	122-66-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U109	1,2-Diphenylhydrazine; alternate[6] standard for wastewaters only	122-66-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.087	NA
U110	Dipropylamine	142-84-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U111	Di-n-propylnitrosamine	621-64-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.4	14
U112	Ethyl acetate	141-78-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.34	33
U113	Ethyl acrylate	140-88-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U114	Ethylenebisdithiocarbamic acid	111-54-6	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U115	Ethylene oxide	75-21-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CHOXD; or CMBST
U115	Ethylene oxide; alternate[6]standard for wastewaters only	75-21-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.12	NA

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U116	Ethylene thiourea	96-45-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U117	Ethyl ether	60-29-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.12	160
U118	Ethyl methacrylate	97-63-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	160
U119	Ethyl methane sulfonate	62-50-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U120	Fluoranthene	206-44-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.068	3.4
U121	Trichlorofluoromethane	75-69-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.02	30
U122	Formaldehyde	50-00-0	SW-846 8315	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8315	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U123	Formic acid	64-18-6	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U124	Furan	110-00-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U125	Furfural	98-01-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U126	Glycidyaldehyde	765-34-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U127	Hexachlorobenzene	118-74-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
U128	Hexachlorobutadiene	87-68-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	5.6
U129	alpha-BHC	319-84-6	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.00014	0.066

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U129	beta-BHC	319-85-7	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.00014	0.066
U129	delta-BHC	319-86-8	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.023	0.066
U129	gamma-BHC (Lindane)	58-89-9	SW-846 8081	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8081	Compliance with LDR treatment standards	0.0017	0.066
U130	Hexachlorocyclopentadiene	77-47-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.057	2.4
U131	Hexachloroethane	67-72-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	30
U132	Hexachlorophene	70-30-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U133	Hydrazine	302-01-2	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U134	Fluoride (measured in wastewaters only)	7664-39-3	SW-846 9214	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 9214	Compliance with LDR treatment standards	35	ADGAS fb NEUTR; or NEUTR
U135	Hydrogen Sulfide	7783-06-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U136	Arsenic	7440-38-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	5.0 mg/L TCLP
U137	Indeno(1,2,3-cd)pyrene	193-39-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	3.4
U138	Iodomethane	74-88-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.19	65
U140	Isobutyl alcohol	78-83-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	170
U141	Isosafrole	120-58-1	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.081	2.6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U142	Kepone	143-50-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0011	0.13
U143	Lasiocarpine	303-34-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U144	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
U145	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
U146	Lead	7439-92-1	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.69	0.75 mg/L TCLP
U147	Maleic anhydride	108-31-6	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U148	Maleic hydrazide	123-33-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U149	Malononitrile	109-77-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U150	Malphalan	148-82-3	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U151	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	RMERC
U151	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.20 mg/L TCLP
U151	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	0.025 mg/L TCLP
U151	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	0.15	NA
U151	Mercury	7439-97-6	SW-846 7470	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7470	Compliance with LDR treatment standards	NA	AMLGM

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U152	Methacrylonitrile	126-98-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.24	84
U153	Methanethiol	74-93-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U154	Methanol	67-56-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U154	Methanol; alternate[6] set of standards for both wastewaters and nonwastewaters	67-56-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	5.6	0.75 mg/L TCLP
U155	Methapyrilene	91-80-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.081	1.5
U156	Methyl chlorocarbonate	79-22-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U157	3-Methylcholanthrene	56-49-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.0055	15
U158	4,4′-Methylene bis(2-chloroaniline)	101-14-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.5	30
U159	Methyl ethyl ketone	78-93-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.28	36
U160	Methyl ethyl ketone peroxide	1338-23-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; CARBN; BIODG; or CMBST	CHOXD; CHRED; or CMBST
U161	Methyl isobutyl ketone	108-10-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	33
U162	Methyl methacrylate	80-62-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.14	160
U163	N-Methyl N′-nitro N-nitrosoguanidine	70-25-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U164	Methylthiouracil	56-04-2	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U165	Naphthalene	91-20-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.059	5.6
U166	1,4-Naphthoquinone	130-15-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U167	1-Naphthylamine	134-32-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U168	2-Naphthylamine	91-59-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.52	CMBST
U169	Nitrobenzene	98-95-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.068	14
U170	p-Nitrophenol	100-02-7	SW-846 8410	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8410	Compliance with LDR treatment standards	0.12	29
U171	2-Nitropropane	79-46-9	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U172	N-Nitrosodi-n-butylamine	924-16-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.04	17
U173	N-Nitrosodiethanolamine	1116-54-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U174	N-Nitrosodiethylamine	55-18-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.4	28
U176	N-Nitroso-N-ethylurea	759-73-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U177	N-Nitroso-N-methylurea	684-93-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U178	N-Nitroso-N-methylurethane	615-53-2	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U179	N-Nitrosopiperidine	100-75-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.013	35

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U180	N-Nitrosopyrrolidine	930-55-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.013	35
U181	5-Nitro-o-toluidine	99-55-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.32	28
U182	Paraldehyde	123-63-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U183	Pentachlorobenzene	608-93-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	10
U184	Pentachloroethane	76-01-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U184	Pentachloroethane; alternate[6] standards for both wastewaters and nonwastewaters	76-01-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.055	6
U185	Pentachloronitrobenzene	82-68-8	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	4.8
U186	1,3-Pentadiene	504-60-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U187	Phenacetin	62-44-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.081	16
U188	Phenol	108-95-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.039	6.2
U189	Phosphorus sulfide	1314-80-3	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; or CMBST	CHOXd; CHRED; or CMBST
U190	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	100-21-0	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28
U190	Phthalic anhydride (measured as Phthalic acid or Terephthalic acid)	85-44-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	28
U191	2-Picoline	109-06-8	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U192	Pronamide	23950-58-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.093	1.5
U193	1,3-Propane sultone	1120-71-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U194	n-Propylamine	107-10-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U196	Pyridine	110-86-1	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.014	16
U197	p-Benzoquinone	106-51-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U200	Reserpine	50-55-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U201	Resorcinol	108-46-3	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U203	Safrole	94-59-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.081	22
U204	Selenium	7782-49-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82	5.7 mg/L TCLP
U205	Selenium	7782-49-2	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	0.82	5.7 mg/L TCLP
U206	Streptozotocin	18883-66-4	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U207	1,2,4,5-Tetrachlorobenzene	95-94-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.055	14
U208	1,1,1,2-Tetrachloroethane	630-20-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
U209	1,1,2,2-Tetrachloroethane	79-34-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U210	Tetrachloroethylene	127-18-4	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.056	6
U211	Carbon tetrachloride	56-23-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.057	6
U213	Tetrahydrofuran	109-99-9	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U214	Thallium (measured in wastewaters only)	7440-28-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	RTHRM; or STABL
U215	Thallium (measured in wastewaters only)	7440-28-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	RTHRM; or STABL
U216	Thallium (measured in wastewaters only)	7440-28-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	RTHRM; or STABL
U217	Thallium (measured in wastewaters only)	7440-28-0	SW-846 7010	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 7010	Compliance with LDR treatment standards	1.4	RTHRM; or STABL
U218	Thioacetamide	62-55-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U219	Thiourea	62-56-6	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U220	Toluene	108-88-3	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.08	10
U221	Toluenediamine	25376-45-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CARBN; or CMBST	CMBST
U222	o-Toluidine hydrochloride	636-21-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U223	Toluene diisocyanate	26471-62-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	CARBN; or CMBST	CMBST
U225	Bromoform (Tribromomethane)	75-25-2	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.63	15

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U226	1,1,1-Trichloroethane	71-55-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
U227	1,1,2-Trichloroethane	79-00-5	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
U228	Trichloroethylene	79-01-6	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.054	6
U234	1,3,5-Trinitrobenzene	99-35-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U235	tris-(2,3-Dibromopropyl)-phosphate	126-72-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.11	0.1
U236	Trypan Blue	72-57-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U237	Uracil mustard	66-75-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U238	Urethane (Ethyl carbamate)	51-79-6	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U239	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	SW-846 8260	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8260	Compliance with LDR treatment standards	0.32	30
U240	2,4-D(2,4-Dichlorophenoxyacetic acid)	94-75-7	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.72	10
U240	2,4-D (2,4-Dichlorophenoxyacetic acid) salts and esters	NA	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U243	Hexachloropropylene	1888-71-7	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.035	30
U244	Thiram	137-26-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U246	Cyanogen bromide	506-68-3	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; WETOX; or CMBST	CHOXD; WETOX; or CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U247	Methoxychlor	72-43-5	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.25	0.18
U248	Warfarin	81-81-2	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	(WETOX or CHOXD) fb CARBN; or CMBST	CMBST
U249	Zinc Phosphide	1314-84-7	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CHOXD; CHRED; or CMBST	CHOXD; CHRED; or CMBST
U271	Benomyl	17804-35-2	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U278	Bendiocarb	22781-23-3	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U279	Carbaryl	63-25-2	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.006; or CMBST, CHOXD, BIODG or CARBN	0.14; or CMBST
U280	Barban	101-27-9	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U328	o-Toluidine	95-53-4	SW-846 8270	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8270	Compliance with LDR treatment standards	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG	CMBST
U353	p-Toluidine	106-49-0	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG	CMBST
U359	2-Ethoxyethanol	110-80-5	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	CMBST; or CHOXD fb (BIODG or CARBN); or BIODG	CMBST
U364	Bendiocarb phenol	22961-82-6	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U367	Carbofuran phenol	1563-38-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U372	Carbendazim	10605-21-7	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U373	Propham	122-42-9	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3]in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"
U387	Prosulfocarb	52888-80-9	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U389	Triallate	2303-17-5	SW-846 8085	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8085	Compliance with LDR treatment standards	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U394	A2213	30558-43-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.042; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U395	Diethylene glycol, dicarbamate	5952-26-1	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U404	Triethylamine	121-44-8	SW-846 8015	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8015	Compliance with LDR treatment standards	0.081; or CMBST, CHOXD, BIODG or CARBN	1.5; or CMBST
U409	Thiophanate-methyl	23564-05-8	Not Established	Generator Knowledge	Not Established	Technology Based Treatment Standard	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U410	Thiodicarb	59669-26-0	SW-846 8318	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8318	Compliance with LDR treatment standards	0.019; or CMBST, CHOXD, BIODG or CARBN	1.4; or CMBST
U411	Propoxur	114-26-1	SW-846 8321	Characterization of waste to confirm generator analysis and determing treatment method	SW-846 8321	Compliance with LDR treatment standards	0.056; or CMBST, CHOXD, BIODG or CARBN	1.4; or

Waste Code	Regulated Hazardous Constituent		Pre-treatment		Post Treatment			
40 CFR § 264.13(b)(5)		CAS Number	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Reference Method[13] 40 CFR § 264.13(b)(2)	Reason for Analysis 40 CFR § 264.13(b)(1)	Wastewaters Concentration[3] in mg/L; or Technology Code[4]	Non Wastewaters Standard Concentration in mg/kg unless noted as "mg/L TCLP"

1	The waste descriptions provided in this table do not replace waste descriptions in 40 CFR 261. Descriptions of Treatment/Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards.
2	CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a chemical with its salts and/or esters, the CAS number is given for the parent compound only.
3	Concentration standards for wastewaters are expressed in mg/L and are based on analysis of composite samples.
4	All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in 40 CFR 268.42 Table 1 - Technology Codes and Descriptions of Technology-Based Standards.
5	Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR Part 264 Subpart O or Part 265 Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in 40 CFR 268.40(d) . All concentration standards for nonwastewaters are based on analysis of grab samples.
6	[Reserved]
7	Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010C or 9012B, found in "Test Methods' for Evaluating Solid Waste, Physical/Chemical Methods," EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11 , with a sample size of 10 grams and a distillation time of one hour and 15 minutes.
8	These wastes, when rendered nonhazardous and then subsequently managed in CWA, or CWA-equivalent systems are not subject to treatment standards. (See § 268.1(c0(3) and (4)).
9	These wastes, when rendered nonhazardous and then subsequently injected in a Class SDWA well, are not subject to treatment standards. (See § 148.1(d)).
10	The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at § 268.42 Table 1 of this Part, for nonwastewaters; and biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN,
11	For these wastes, the definition of CMBST is limited to: (1) combustion units operating under 40 CFR 266 , (2) combustion units permitted under 40 CFR Part 264 , Subpart O, or (3) combustion units operating under 40 CFR 265 , Subpart O, which have obtained a determination of equivalent treatment under 268.42(b).
12	Disposal of K175 wastes that have complied with all applicable 40 CFR 268.40 treatment standards must also be macroencapsulated in accordance with 40 CFR 268.45Table 1 unless the waste is placed in: (1) A Subtitle C monofill containing only K175 wastes that meet all applicable 40 CFR 268.40 treatment standards; or (2) A dedicated Subtitle C landfill cell in which all other wastes being co-disposed are at pH≤6.0.
13	Method revisions not included. Latest version of method will be used. Only one approved method provided, equivalent SW846 methods may be available and are acceptable for use.

Technology code	Description of technology-based standards
ADGAS:	Venting of compressed gases into an absorbing or reacting media (i.e., solid or liquid) - venting can be accomplished through physical release utilizing valves/piping; physical penetration of the container; and/or penetration through detonation.
AMLGM:	Amalgamation of liquid, elemental mercury contaminated with radioactive materials utilizing inorganic reagents such as copper, zinc, nickel, gold, and sulfur that result in a nonliquid, semi-solid amalgam and thereby reducing potential emissions of elemental mercury vapors to the air.
BIODG:	Biodegradation of organics or non-metallic inorganics (i.e., degradable inorganics that contain the elements of phosphorus, nitrogen, and sulfur) in units operated under either aerobic or anaerobic conditions such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the biodegradation of many organic constituents that cannot be directly analyzed in wastewater residues).
CARBN:	Carbon adsorption (granulated or powdered) of non-metallic inorganics, organo-metallics, and/or organic constituents, operated such that a surrogate compound or indicator parameter has not undergone breakthrough (e.g., Total Organic Carbon can often be used as an indicator parameter for the adsorption of many organic constituents that cannot be directly analyzed in wastewater residues). Breakthrough occurs when the carbon has become saturated with the constituent (or indicator parameter) and substantial change in adsorption rate associated with that constituent occurs.
CHOXD:	Chemical or electrolytic oxidation utilizing the following oxidation reagents (or waste reagents) or combinations of reagents: (1) Hypochlorite (e.g., bleach); (2) chlorine; (3) chlorine dioxide; (4) ozone or UV (ultraviolet light) assisted ozone; (5) peroxides; (6) persulfates; (7) perchlorates; (8) permanganates; and/or (9) other oxidizing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues). Chemical oxidation specifically includes what is commonly referred to as alkaline chlorination.
CHRED:	Chemical reduction utilizing the following reducing reagents (or waste reagents) or combinations of reagents: (1) Sulfur dioxide; (2) sodium, potassium, or alkali salts or sulfites, bisulfites, metabisulfites, and polyethylene glycols (e.g., NaPEG and KPEG); (3) sodium hydrosulfide; (4) ferrous salts; and/or (5) other reducing reagents of equivalent efficiency, performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Halogens can often be used as an indicator parameter for the reduction of many halogenated organic constituents that cannot be directly analyzed in wastewater residues). Chemical reduction is commonly used for the reduction of hexavalent chromium to the trivalent state.

Technology code	Description of technology-based standards
CMBST:	High temperature organic destruction technologies, such as combustion in incinerators, boilers, or industrial furnaces operated in accordance with the applicable requirements of 40 CFR part 264 , subpart O, or 40 CFR part 265 , subpart O, or 40 CFR part 266 , subpart H, and in other units operated in accordance with applicable technical operating requirements; and certain non-combustive technologies, such as the Catalytic Extraction Process.
DEACT:	Deactivation to remove the hazardous characteristics of a waste due to its ignitability, corrosivity, and/or reactivity.
FSUBS:	Fuel substitution in units operated in accordance with applicable technical operating requirements.
HLVIT:	Vitrification of high level mixed radioactive wastes in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.
IMERC:	Incineration of wastes containing organics and mercury in units operated in accordance with the technical operating requirements of 40 CFR part 264 subpart 0 and part 265 subpart 0. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).
INCIN:	Incineration in units operated in accordance with the technical operating requirements of 40 CFR part 264 subpart 0 and part 265 subpart 0.
LLEXT:	Liquid-liquid extraction (often referred to as solvent extraction) of organics from liquid wastes into an immiscible solvent for which the hazardous constituents have a greater solvent affinity, resulting in an extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and a raffinate (extracted liquid waste) proportionately low in organics that must undergo further treatment as specified in the standard.
MACRO:	Macroencapsulation with surface coating materials such as polymeric organics (e.g., resins and plastics) or with a jacket of inert inorganic materials to substantially reduce surface exposure to potential leaching media. Macroencapsulation specifically does not include any material that would be classified as a tank or container according to 40 CFR 260.10 .
NEUTR:	Neutralization with the following reagents (or waste reagents) or combinations of reagents: (1) Acids; (2) bases; or (3) water (including wastewaters) resulting in a pH greater than 2 but less than 12.5 as measured in the aqueous residuals.
NLDBR:	No land disposal based on recycling.
POLYM:	Formation of complex high-molecular weight solids through polymerization of monomers in high-TOC D001 non-wastewaters which are chemical components in the manufacture of plastics.
PRECP:	Chemical precipitation of metals and other inorganics as insoluble precipitates of oxides, hydroxides, carbonates, sulfides, sulfates, chlorides, fluorides, or phosphates. The following reagents (or waste reagents) are typically used alone or in combination: (1) Lime (i.e., containing oxides and/or hydroxides of calcium and/or magnesium; (2) caustic (i.e., sodium and/or potassium hydroxides; (3) soda ash (i.e., sodium carbonate); (4) sodium sulfide; (5) ferric sulfate or ferric chloride; (6) alum; or (7) sodium sulfate. Additional flocculating, coagulation or similar reagents/processes that enhance sludge dewatering characteristics are not precluded from use.
RBERY:	Thermal recovery of Beryllium.

Technology code	Description of technology-based standards
RCGAS:	Recovery/reuse of compressed gases including techniques such as reprocessing of the gases for reuse/resale; filtering/adsorption of impurities; remixing for direct reuse or resale; and use of the gas as a fuel source.
RCORR:	Recovery of acids or bases utilizing one or more of the following recovery technologies: (1) Distillation (i.e., thermal concentration); (2) ion exchange; (3) resin or solid adsorption; (4) reverse osmosis; and/or (5) incineration for the recovery of acid - Note: this does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RLEAD:	Thermal recovery of lead in secondary lead smelters.
RMERC:	Retorting or roasting in a thermal processing unit capable of volatilizing mercury and subsequently condensing the volatilized mercury for recovery. The retorting or roasting unit (or facility) must be subject to one or more of the following: (a) a National Emissions Standard for Hazardous Air Pollutants (NESHAP) for mercury; (b) a Best Available Control Technology (BACT) or a Lowest Achievable Emission Rate (LAER) standard for mercury imposed pursuant to a Prevention of Significant Deterioration (PSD) permit; or (c) a state permit that establishes emission limitations (within meaning of section 302 of the Clean Air Act) for mercury. All wastewater and nonwastewater residues derived from this process must then comply with the corresponding treatment standards per waste code with consideration of any applicable subcategories (e.g., High or Low Mercury Subcategories).
RMETL:	Recovery of metals or inorganics utilizing one or more of the following direct physical/removal technologies: (1) Ion exchange; (2) resin or solid (i.e., zeolites) adsorption; (3) reverse osmosis; (4) chelation/solvent extraction; (5) freeze crystallization; (6) ultrafiltration and/or (7) simple precipitation (i.e., crystallization) - Note: This does not preclude the use of other physical phase separation or concentration techniques such as decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RORGS:	Recovery of organics utilizing one or more of the following technologies: (1) Distillation; (2) thin film evaporation; (3) steam stripping; (4) carbon adsorption; (5) critical fluid extraction; (6) liquid-liquid extraction; (7) precipitation/crystallization (including freeze crystallization); or (8) chemical phase separation techniques (i.e., addition of acids, bases, demulsifiers, or similar chemicals); - Note: this does not preclude the use of other physical phase separation techniques such as a decantation, filtration (including ultrafiltration), and centrifugation, when used in conjunction with the above listed recovery technologies.
RTHRM:	Thermal recovery of metals or inorganics from nonwastewaters in units identified as industrial furnaces according to 40 CFR 260.10 (1), (6), (7), (11), and (12) under the definition of “industrial furnaces”.
RZINC:	Resmelting in high temperature metal recovery units for the purpose of recovery of zinc.

Technology code	Description of technology-based standards
STABL:	Stabilization with the following reagents (or waste reagents) or combinations of reagents: (1) Portland cement; or (2) lime/pozzolans (e.g., fly ash and cement kiln dust) - this does not preclude the addition of reagents (e.g., iron salts, silicates, and clays) designed to enhance the set/cure time and/or compressive strength, or to overall reduce the leachability of the metal or inorganic.
SSTRP:	Steam stripping of organics from liquid wastes utilizing direct application of steam to the wastes operated such that liquid and vapor flow rates, as well as temperature and pressure ranges, have been optimized, monitored, and maintained. These operating parameters are dependent upon the design parameters of the unit, such as the number of separation stages and the internal column design, thus, resulting in a condensed extract high in organics that must undergo either incineration, reuse as a fuel, or other recovery/reuse and an extracted wastewater that must undergo further treatment as specified in the standard.
VTD:	Vacuum thermal desorption of low-level radioactive hazardous mixed waste in units in compliance with all applicable radioactive protection requirements under control of the Nuclear Regulatory Commission.
WETOX:	Wet air oxidation performed in units operated such that a surrogate compound or indicator parameter has been substantially reduced in concentration in the residuals (e.g., Total Organic Carbon can often be used as an indicator parameter for the oxidation of many organic constituents that cannot be directly analyzed in wastewater residues).
WTRRX:	Controlled reaction with water for highly reactive inorganic or organic chemicals with precautionary controls for protection of workers from potential violent reactions as well as precautionary controls for potential emissions of toxic/ignitable levels of gases released during the reaction.
Note 1: When a combination of these technologies (i.e., a treatment train) is specified as a single treatment standard, the order of application is specified in § 268.42, Table 2 by indicating the five letter technology code that must be applied first, then the designation “fb.” (an abbreviation for “followed by”), then the five letter technology code for the technology that must be applied next, and so on.	
Note 2: When more than one technology (or treatment train) are specified as alternative treatment standards, the five letter technology codes (or the treatment trains) are separated by a semicolon (;) with the last technology preceded by the word “OR”. This indicates that any one of these BDAT technologies or treatment trains can be used for compliance with the standard.	

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
D004	LDR-wastewater	TCLP arsenic	7440-38-2	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D004	LDR-nonwastewater	TCLP arsenic	7440-38-2	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D004	LDR-nonwastewater	TCLP arsenic	7440-38-2	Determine if waste or residual meets LDR treatment standard, < 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D005	LDR-wastewater	TCLP barium	7440-39-3	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 100 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D005	LDR-nonwastewater	TCLP barium	7440-39-3	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 100 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D005	LDR-nonwastewater	TCLP barium	7440-39-3	Determine if waste or residual meets LDR treatment standard, < 21 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D006	LDR-wastewater	TCLP cadmium	7440-43-9	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 1.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D006	LDR-nonwastewater	TCLP cadmium	7440-43-9	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 1.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D006	LDR-nonwastewater	TCLP cadmium	7440-43-9	Determine if waste or residual meets LDR treatment standard, < 0.11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D007	LDR-wastewater	TCLP chromium	7440-47-3	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D007	LDR-nonwastewater	TCLP chromium	7440-47-3	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D007	LDR-nonwastewater	TCLP chromium	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.6 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D008	LDR-wastewater	TCLP lead	7439-92-1	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D008	LDR-nonwastewater	TCLP lead	7439-92-1	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D008	LDR-nonwastewater	TCLP lead	9439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D009	LDR-wastewater	TCLP mercury	7439-97-6	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.2 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7471B, 7473	listed = each batch**, non-listed = once per week
D009	LDR-nonwastewater	TCLP mercury	7439-97-6	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.2 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7471B, 7473	listed = each batch**, non-listed = once per week
D009	LDR-nonwastewater	mercury	7439-97-6	Determine if waste or residue is High Mercury LDR category, >260 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 7471B, 7473	listed = each batch**, non-listed = once per week
D009	LDR-nonwastewater	TCLP mercury	7439-97-6	Determine if waste or residual meets LDR treatment standard, < 0.025 mg/L.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7471B, 7473	every batch
D010	LDR-wastewater	TCLP selenium	7782-49-2	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 1.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D010	LDR-nonwastewater	TCLP selenium	7782-49-2	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 1.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D010	LDR-nonwastewater	TCLP selenium	7782-49-2	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
D011	LDR-wastewater	TCLP silver	7440-22-4	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D011	LDR-nonwastewater	TCLP silver	7440-22-4	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D011	LDR-nonwastewater	TCLP silver	7440-22-4	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
D012	LDR-wastewater	TCLP Endrin	72-20-8	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 0.02 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D012	LDR-nonwastewater	TCLP Endrin	72-20-8	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 0.02 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D012	LDR-nonwastewater	Endrin	72-20-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D013	LDR-wastewater	TCLP Lindane	319-84-6, 319-85-7, 319-86-8, 58-89-9	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 0.4 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8081	listed = each batch**, non-listed = once per week
D013	LDR-nonwastewater	TCLP Lindane	319-84-6, 319-85-7, 319-86-8, 58-89-9	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 0.4 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8081	listed = each batch**, non-listed = once per week
D013	LDR-nonwastewater	Lindane (as alpha-, beta-, delta-, and gamma-BHC)	319-84-6, 319-85-7, 319-86-8, 58-89-9	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8081	listed = each batch**, non-listed = once per week
D014	LDR-wastewater	TCLP Methoxychlor	72-43-5	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 10.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D014	LDR-nonwastewater	TCLP Methoxychlor	72-43-5	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 10.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D014	LDR-nonwastewater	Methoxychlor	72-43-5	Determine if waste or residual meets LDR treatment standard, < 0.18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D015	LDR-wastewater	TCLP Toxaphene	8001-35-2	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D015	LDR-nonwastewater	TCLP Toxaphene	8001-35-2	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D015	LDR-nonwastewater	Toxaphene	8001-35-2	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D016	LDR-wastewater	TCLP 2,4-D	94-75-7	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 10.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8321	listed = each batch**, non-listed = once per week
D016	LDR-nonwastewater	TCLP 2,4-D	94-75-7	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 10.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8321	listed = each batch**, non-listed = once per week
D016	LDR-nonwastewater	2,4-D	94-75-7	Determine if waste or residual meets LDR treatment standard, < 10.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8321	listed = each batch**, non-listed = once per week
D017	LDR-wastewater	TCLP 2,4,5-TP (Silvex)	93-72-1	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 1.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8321	listed = each batch**, non-listed = once per week
D017	LDR-nonwastewater	TCLP 2,4,5-TP (Silvex)	93-72-1	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 1.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8321	listed = each batch**, non-listed = once per week
D017	LDR-nonwastewater	2,4,5-TP (Silvex)	93-72-1	Determine if waste or residual meets LDR treatment standard, < 7.9 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8321	listed = each batch**, non-listed = once per week
D018	LDR-wastewater	TCLP benzene	71-43-2	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
D018	LDR-nonwastewater	TCLP benzene	71-43-2	Determine if waste is RCRA hazardous for characteristic of toxicity, ≥ 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D018	LDR-nonwastewater	benzene	71-43-2	Determine if waste or residual meets LDR treatment standard, < 10.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D019	LDR-wastewater	TCLP carbon tetrachloride	56-23-5	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D019	LDR-nonwastewater	TCLP carbon tetrachloride	56-23-5	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D019	LDR-nonwastewater	carbon tetrachloride	56-23-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D020	LDR-wastewater	TCLP chlordane	57-74-9	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.03 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D020	LDR-nonwastewater	TCLP chlordane	57-74-9	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.03 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D020	LDR-nonwastewater	chlordane	57-74-9	Determine if waste or residual meets LDR treatment standard, < 0.26 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D021	LDR-wastewater	TCLP chlorobenzene	108-90-7	Determine if waste is RCRA hazardous for characteristic of toxicity, < 100.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D021	LDR-nonwastewater	TCLP chlorobenzene	108-90-7	Determine if waste is RCRA hazardous for characteristic of toxicity, < 100.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D021	LDR-nonwastewater	chlorobenzene	108-90-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D022	LDR-wastewater	TCLP chloroform	67-66-3	Determine if waste is RCRA hazardous for characteristic of toxicity, < 6.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D022	LDR-nonwastewater	TCLP chloroform	67-66-3	Determine if waste is RCRA hazardous for characteristic of toxicity, < 6.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D022	LDR-nonwastewater	chloroform	67-66-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D023	LDR-wastewater	TCLP o-cresol	95-48-7	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8041	listed = each batch**, non-listed = once per week
D023	LDR-nonwastewater	TCLP o-cresol	95-48-7	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8041	listed = each batch**, non-listed = once per week
D023	LDR-nonwastewater	o-cresol	95-48-7	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8041	listed = each batch**, non-listed = once per week
D024	LDR-wastewater	TCLP m-cresol	108-39-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8041	listed = each batch**, non-listed = once per week
D024	LDR-nonwastewater	TCLP m-cresol	108-39-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8041	listed = each batch**, non-listed = once per week
D024	LDR-nonwastewater	m-cresol	108-39-4	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8041	listed = each batch**, non-listed = once per week
D025	LDR-wastewater	TCLP p-cresol	106-44-5	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8041	listed = each batch**, non-listed = once per week
D025	LDR-nonwastewater	TCLP p-cresol	106-44-5	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8041	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
D025	LDR-nonwastewater	p-cresol	106-44-5	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8041	listed = each batch**, non-listed = once per week
D026	LDR-wastewater	TCLP cresol	95-48-7, 108-39-4, 106-44-5	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8041	listed = each batch**, non-listed = once per week
D026	LDR-nonwastewater	TCLP cresol	95-48-7, 108-39-4, 106-44-5	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8041	listed = each batch**, non-listed = once per week
D026	LDR-nonwastewater	cresol	95-48-7, 108-39-4, 106-44-5	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8041	listed = each batch**, non-listed = once per week
D027	LDR-wastewater	TCLP 1,4-dichlorobenzene	106-47-7	Determine if waste is RCRA hazardous for characteristic of toxicity, < 7.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D027	LDR-nonwastewater	TCLP 1,4-dichlorobenzene	106-47-7	Determine if waste is RCRA hazardous for characteristic of toxicity, < 7.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D027	LDR-nonwastewater	1,4-dichlorobenzene	106-47-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D028	LDR-wastewater	TCLP 1,2-dichloroethane	107-06-2	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D028	LDR-nonwastewater	TCLP 1,2-dichloroethane	107-06-2	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D028	LDR-nonwastewater	1,2-dichloroethane	107-06-2	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D029	LDR-wastewater	TCLP 1,2-dichloroethylene	75-35-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D029	LDR-nonwastewater	TCLP 1,2-dichloroethylene	75-35-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D029	LDR-nonwastewater	1,2-dichloroethylene	75-35-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D030	LDR-wastewater	TCLP 2,4-dinitrotoluene	121-14-2	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.13 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D030	LDR-nonwastewater	TCLP 2,4-dinitrotoluene	121-14-2	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.13 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D030	LDR-nonwastewater	2,4-dinitrotoluene	121-14-2	Determine if waste or residual meets LDR treatment standard, < 140.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D031	LDR-wastewater	TCLP heptachlor	76-44-8	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.008 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D031	LDR-nonwastewater	TCLP heptachlor	76-44-8	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.008 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D031	LDR-nonwastewater	heptachlor	76-44-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D032	LDR-wastewater	TCLP hexachlorobenzene	118-74-1	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.13 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D032	LDR-nonwastewater	TCLP hexachlorobenzene	118-74-1	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.13 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D032	LDR-nonwastewater	hexachlorobenzene	118-74-1	Determine if waste or residual meets LDR treatment standard, < 10.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
D033	LDR-wastewater	TCLP hexachlorobutadiene	87-68-3	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D033	LDR-nonwastewater	TCLP hexachlorobutadiene	87-68-3	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D033	LDR-nonwastewater	hexachlorobutadiene	87-68-3	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D034	LDR-wastewater	TCLP hexachloroethane	67-72-1	Determine if waste is RCRA hazardous for characteristic of toxicity, < 3.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D034	LDR-nonwastewater	TCLP hexachloroethane	67-72-1	Determine if waste is RCRA hazardous for characteristic of toxicity, < 3.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D034	LDR-nonwastewater	hexachloroethane	67-72-1	Determine if waste or residual meets LDR treatment standard, < 30.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D035	LDR-wastewater	TCLP methyl ethyl ketone	78-93-3	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D035	LDR-nonwastewater	TCLP methyl ethyl ketone	78-93-3	Determine if waste is RCRA hazardous for characteristic of toxicity, < 200.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D035	LDR-nonwastewater	Methyl ethyl ketone	78-93-3	Determine if waste or residual meets LDR treatment standard, < 36.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D036	LDR-wastewater	TCLP nitrobenzene	98-95-3	Determine if waste is RCRA hazardous for characteristic of toxicity, < 2.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D036	LDR-nonwastewater	TCLP nitrobenzene	98-95-3	Determine if waste is RCRA hazardous for characteristic of toxicity, < 2.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D036	LDR-nonwastewater	nitrobenzene	98-95-3	Determine if waste or residual meets LDR treatment standard, < 14.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D037	LDR-wastewater	TCLP pentachlorophenol	87-86-5	Determine if waste is RCRA hazardous for characteristic of toxicity, < 100.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D037	LDR-nonwastewater	TCLP pentachlorophenol	87-86-5	Determine if waste is RCRA hazardous for characteristic of toxicity, < 100.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D037	LDR-nonwastewater	pentachlorophenol	87-86-5	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D038	LDR-wastewater	TCLP pyridine	110-86-1	Determine if waste is RCRA hazardous for characteristic of toxicity, < 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D038	LDR-nonwastewater	TCLP pyridine	110-86-1	Determine if waste is RCRA hazardous for characteristic of toxicity, < 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D038	LDR-nonwastewater	pyridine	110-86-1	Determine if waste or residual meets LDR treatment standard, < 16.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D039	LDR-wastewater	TCLP tetrachloroethylene	127-18-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D039	LDR-nonwastewater	TCLP tetrachloroethylene	127-18-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D039	LDR-nonwastewater	tetrachloroethylene	127-18-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D040	LDR-wastewater	TCLP trichloroethylene	79-01-6	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
D040	LDR-nonwastewater	TCLP trichloroethylene	79-01-6	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.5 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D040	LDR-nonwastewater	trichloroethylene	79-01-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
D041	LDR-wastewater	TCLP 2,4,5-trichlorophenol	95-95-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 400.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D041	LDR-nonwastewater	TCLP 2,4,5-trichlorophenol	95-95-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 400.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D041	LDR-nonwastewater	2,4,5-trichlorophenol	95-95-4	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D042	LDR-wastewater	TCLP 2,4,6-trichlorophenol	88-06-2	Determine if waste is RCRA hazardous for characteristic of toxicity, < 2.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D042	LDR-nonwastewater	TCLP 2,4,6-trichlorophenol	88-06-2	Determine if waste is RCRA hazardous for characteristic of toxicity, < 2.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8270	listed = each batch**, non-listed = once per week
D042	LDR-nonwastewater	2,4,6-trichlorophenol	88-06-2	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8270	listed = each batch**, non-listed = once per week
D043	LDR-wastewater	TCLP vinyl chloride	75-01-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.2 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D043	LDR-nonwastewater	TCLP vinyl chloride	75-01-4	Determine if waste is RCRA hazardous for characteristic of toxicity, < 0.2 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 8260	listed = each batch**, non-listed = once per week
D043	LDR-nonwastewater	vinyl chloride	75-01-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 8260	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP antimony	7440-36-0	Determine if waste or residual meets LDR treatment standard, < 1.15 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP antimony	7440-36-0	Determine if waste or residual meets LDR treatment standard, < 1.15 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP arsenic	7440-38-2	Determine if waste or residual meets LDR treatment standard, < 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP arsenic	7440-38-2	Determine if waste or residual meets LDR treatment standard, < 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP barium	7440-39-3	Determine if waste or residual meets LDR treatment standard, < 21.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP barium	7440-39-3	Determine if waste or residual meets LDR treatment standard, < 21.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP beryllium	7440-41-7	Determine if waste or residual meets LDR treatment standard, < 1.22 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP beryllium	7440-41-7	Determine if waste or residual meets LDR treatment standard, < 1.22 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP cadmium	7440-43-9	Determine if waste or residual meets LDR treatment standard, < 0.11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP cadmium	7440-43-9	Determine if waste or residual meets LDR treatment standard, < 0.11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP chromium (total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
K061	LDR-nonwastewater	TCLP chromium (total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP mercury	7439-97-6	Determine if waste or residual meets LDR treatment standard, < 0.025 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7471B, 7473	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP mercury	7439-97-6	Determine if waste or residual meets LDR treatment standard, < 0.025 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7471B, 7473	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP nickel	7440-02-0	Determine if waste or residual meets LDR treatment standard, < 11.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP nickel	7440-02-0	Determine if waste or residual meets LDR treatment standard, < 11.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP selenium	7782-49-2	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP selenium	7782-49-2	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP silver	7440-22-4	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP silver	7440-22-4	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP thallium	7440-28-0	Determine if waste or residual meets LDR treatment standard, < 0.20 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP thallium	7440-28-0	Determine if waste or residual meets LDR treatment standard, < 0.20 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-wastewater	TCLP zinc	7440-66-6	Determine if waste or residual meets LDR treatment standard, < 4.3 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K061	LDR-nonwastewater	TCLP zinc	7440-66-6	Determine if waste or residual meets LDR treatment standard, < 4.3 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K062	LDR-wastewater	TCLP Chromium (Total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K062	LDR-nonwastewater	TCLP Chromium (Total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K062	LDR-wastewater	TCLP Lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K062	LDR-nonwastewater	TCLP Lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
K157	LDR-wastewater	carbon tetrachloride	56-23-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-nonwastewater	carbon tetrachloride	56-23-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-wastewater	Chloroform	67-66-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
K157	LDR-nonwastewater	Chloroform	67-66-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-wastewater	Chloromethane	74-87-3	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-nonwastewater	Chloromethane	74-87-3	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-wastewater	Methomyl	16752-77-5	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8318A	listed = each batch**, non-listed = once per week
K157	LDR-nonwastewater	Methomyl	16752-77-5	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8318A	listed = each batch**, non-listed = once per week
K157	LDR-wastewater	Methyl ethyl ketone	78-93-3	Determine if waste or residual meets LDR treatment standard, < 36 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-nonwastewater	Methyl ethyl ketone	78-93-3	Determine if waste or residual meets LDR treatment standard, < 36 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-wastewater	Methylene Chloride	75-09-2	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-nonwastewater	Methylene Chloride	75-09-2	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-wastewater	Pyridine	110-86-1	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-nonwastewater	Pyridine	110-86-1	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8260	listed = each batch**, non-listed = once per week
K157	LDR-wastewater	Triethylamine	121-44-8	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8015D	listed = each batch**, non-listed = once per week
K157	LDR-nonwastewater	Triethylamine	121-44-8	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 8015D	listed = each batch**, non-listed = once per week
F006	LDR-wastewater	Amenable cyanides	57-12-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
F006	LDR-nonwastewater	Amenable cyanides	57-12-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
F006	LDR-wastewater	cyanides	57-12-5	Determine if waste or residual meets LDR treatment standard, < 590 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
F006	LDR-nonwastewater	cyanides	57-12-5	Determine if waste or residual meets LDR treatment standard, < 590 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
F006	LDR-wastewater	TCLP cadmium	7440-43-9	Determine if waste or residual meets LDR treatment standard, < 0.11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F006	LDR-nonwastewater	TCLP cadmium	7440-43-9	Determine if waste or residual meets LDR treatment standard, < 0.11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F006	LDR-wastewater	TCLP chromium (total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F006	LDR-nonwastewater	TCLP chromium (total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F006	LDR-wastewater	TCLP lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F006	LDR-nonwastewater	TCLP lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F006	LDR-wastewater	TCLP nickel	7440-02-0	Determine if waste or residual meets LDR treatment standard, < 11.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F006	LDR-nonwastewater	TCLP nickel	7440-02-0	Determine if waste or residual meets LDR treatment standard, < 11.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F006	LDR-wastewater	TCLP silver	7440-22-4	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F006	LDR-nonwastewater	TCLP silver	7440-22-4	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F019	LDR-wastewater	amenable cyanides	57-12-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
F019	LDR-nonwastewater	amenable cyanides	57-12-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
F019	LDR-wastewater	cyanides	57-12-5	Determine if waste or residual meets LDR treatment standard, < 590 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
F019	LDR-nonwastewater	cyanides	57-12-5	Determine if waste or residual meets LDR treatment standard, < 590 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
F019	LDR-wastewater	TCLP chromium (total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
F019	LDR-nonwastewater	TCLP chromium (total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7010	listed = each batch**, non-listed = once per week
U134	LDR-wastewater	hydrogen fluoride	7664-39-3	Determine if waste or residual meets LDR treatment standard ADGAS followed by NEUTR or NEUTR alone resulting in a pH > 2.0 but less than < 12.5 measured ion aqueous residuals.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 9040	listed = each batch**, non-listed = once per week
U134	LDR-nonwastewater	hydrogen fluoride	7664-39-3	Determine if waste or residual meets LDR treatment standard ADGAS followed by NEUTR or NEUTR alone resulting in a pH > 2.0 but less than < 12.5 measured ion aqueous residuals.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 9040	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1, 2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1, 2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,1,1,2-Tetrachloroethane	630-20-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,1,1,2-Tetrachloroethane	630-20-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,1,1-Trichloroethane	71-55-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,1,1-Trichloroethane	71-55-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,1,2,2-Tetrachloroethane	79-34-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	1,1,2,2-Tetrachloroethane	79-34-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,1,2-Trichloroethane	79-00-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,1,2-Trichloroethane	79-00-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,1-Dichloroethane	75-34-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,1-Dichloroethane	75-34-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,1-Dichloroethylene	75-35-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,1-Dichloroethylene	75-35-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	Determine if waste or residual meets LDR treatment standard, < 0.005 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	Determine if waste or residual meets LDR treatment standard, < 0.005 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Determine if waste or residual meets LDR treatment standard, < 0.005 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Determine if waste or residual meets LDR treatment standard, < 0.005 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2,3-Trichloropropane	96-18-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,2,3-Trichloropropane	96-18-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2,4,5-Tetrachlorobenzene	95-94-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,2,4,5-Tetrachlorobenzene	95-94-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2,4-Trichlorobenzene	120-82-1	Determine if waste or residual meets LDR treatment standard, < 19 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	1,2,4-Trichlorobenzene	120-82-1	Determine if waste or residual meets LDR treatment standard, < 19 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2-Dibromo-3-chloropropane	96-12-8	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,2-Dibromo-3-chloropropane	96-12-8	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2-Dichloroethane	107-06-2	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,2-Dichloroethane	107-06-2	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,2-Dichloropropane	78-87-5	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,2-Dichloropropane	78-87-5	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,4-Dinitrobenzene	100-25-4	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,4-Dinitrobenzene	100-25-4	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	1,4-Dioxane	123-91-1	Determine if waste or residual meets LDR treatment standard, < 170 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	1,4-Dioxane	123-91-1	Determine if waste or residual meets LDR treatment standard, < 170 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,3,4,6-Tetrachlorophenol	58-90-2	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,3,4,6-Tetrachlorophenol	58-90-2	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,4,5-T	93-76-5	Determine if waste or residual meets LDR treatment standard, < 7.9 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,4,5-T	93-76-5	Determine if waste or residual meets LDR treatment standard, < 7.9 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,4,5-Trichlorophenol	95-95-4	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,4,5-Trichlorophenol	95-95-4	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,4,6-Trichlorophenol	88-06-2	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,4,6-Trichlorophenol	88-06-2	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,4-Dichlorophenol	120-83-2	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	2,4-Dichlorophenol	120-83-2	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,4-Dimethylaniline (2,4-xylidine)	95-68-1	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,4-Dimethylaniline (2,4-xylidine)	108-45-2	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,4-Dimethylaniline (2,4-xylidine)	95-68-1	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,4-Dimethylaniline (2,4-xylidine)	108-45-2	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,4-Dinitrophenol	51-28-5	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,4-Dinitrophenol	51-28-5	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,4-Dinitrotoluene	121-14-2	Determine if waste or residual meets LDR treatment standard, < 140 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,4-Dinitrotoluene	121-14-2	Determine if waste or residual meets LDR treatment standard, < 140 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,6-Dichlorophenol	87-65-0	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,6-Dichlorophenol	87-65-0	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2,6-Dinitrotoluene	606-20-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2,6-Dinitrotoluene	606-20-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2-4-Dimethyl phenol	105-67-9	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2-4-Dimethyl phenol	105-67-9	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2-Acetylaminofluorene	53-96-3	Determine if waste or residual meets LDR treatment standard, < 140 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2-Acetylaminofluorene	53-96-3	Determine if waste or residual meets LDR treatment standard, < 140 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2-Chloronaphthalene	91-58-7	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2-Chloronaphthalene	91-58-7	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2-Chlorophenol	95-57-8	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	2-Chlorophenol	95-57-8	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	2-sec-Buty-4,6-dinitrophenol (Dinoseb)	88-85-7	Determine if waste or residual meets LDR treatment standard, < 2.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	2-sec-Buty-4,6-dinitrophenol (Dinoseb)	88-85-7	Determine if waste or residual meets LDR treatment standard, < 2.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	3-Chloropropylene	107-05-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	3-Chloropropylene	107-05-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	3-Methylcholanthrene	56-49-5	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	3-Methylcholanthrene	56-49-5	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	4,4-Methylene bis(2-chloroaniline)	101-14-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	4,4-Methylene bis(2-chloroaniline)	101-14-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	4,6-Dinitro-o-cresol	534-52-1	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	4,6-Dinitro-o-cresol	534-52-1	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	4-Bromophenyl phenyl ether	101-55-3	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	4-Bromophenyl phenyl ether	101-55-3	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	5-Nitro-o-toluidine	99-55-8	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	5-Nitro-o-toluidine	99-55-8	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Acenaphthene	83-32-9	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Acenaphthene	83-32-9	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Acenaphthylene	208-96-8	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Acenaphthylene	208-96-8	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Acetone	67-64-1	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Acetone	67-64-1	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Acetophenone	96-86-2	Determine if waste or residual meets LDR treatment standard, < 9.7 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Acetophenone	96-86-2	Determine if waste or residual meets LDR treatment standard, < 9.7 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Acrylonitrile	107-13-1	Determine if waste or residual meets LDR treatment standard, < 84 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	Acrylonitrile	107-13-1	Determine if waste or residual meets LDR treatment standard, < 84 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Aldrin	309-00-2	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Aldrin	309-00-2	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	alpha-BHC	319-84-6	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	alpha-BHC	319-84-6	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Aniline	62-53-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Aniline	62-53-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Anthracene	120-12-7	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Anthracene	120-12-7	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Antimony	7440-36-0	Determine if waste or residual meets LDR treatment standard, < 1.15 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Antimony	7440-36-0	Determine if waste or residual meets LDR treatment standard, < 1.15 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Arsenic	7440-38-2	Determine if waste or residual meets LDR treatment standard, < 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Arsenic	7440-38-2	Determine if waste or residual meets LDR treatment standard, < 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Barium	7440-39-3	Determine if waste or residual meets LDR treatment standard, < 21 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Barium	7440-39-3	Determine if waste or residual meets LDR treatment standard, < 21 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Benz(a)anthracene	56-55-3	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Benz(a)anthracene	56-55-3	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Benzene	71-43-2	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Benzene	71-43-2	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Benzo(a)pyrene	50-32-8	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Benzo(a)pyrene	50-32-8	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	Determine if waste or residual meets LDR treatment standard, < 6.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	Determine if waste or residual meets LDR treatment standard, < 6.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Benzo(g,h,i)perylene	191-24-2	Determine if waste or residual meets LDR treatment standard, < 1.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Benzo(g,h,i)perylene	191-24-2	Determine if waste or residual meets LDR treatment standard, < 1.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	Determine if waste or residual meets LDR treatment standard, < 6.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	Determine if waste or residual meets LDR treatment standard, < 6.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	beta-BHC	319-85-7	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	beta-BHC	319-85-7	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	bis(2-Chloroethoxy)methane	111-91-1	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	bis(2-Chloroethoxy)methane	111-91-1	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	bis(2-Chloroethyl)ether	111-44-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	bis(2-Chloroethyl)ether	111-44-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	bis(2-Chloroisopropyl)ether	39638-32-9	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	bis(2-Chloroisopropyl)ether	39638-32-9	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	bis(2-Ethylhexyl) phthalate	117-81-7	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	bis(2-Ethylhexyl) phthalate	117-81-7	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Bromodichloromethane	75-27-4	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Bromodichloromethane	75-27-4	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Bromoform (Tribromomethane)	75-25-2	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Bromoform (Tribromomethane)	75-25-2	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Butyl benzyl phthalate	85-68-7	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Butyl benzyl phthalate	85-68-7	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Cadmium	7440-43-9	Determine if waste or residual meets LDR treatment standard, < 0.11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	Cadmium	7440-43-9	Determine if waste or residual meets LDR treatment standard, < 0.11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Carbon tetrachloride	56-23-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Carbon tetrachloride	56-23-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Chlordane (alpha and gamma isomers)	57-74-9	Determine if waste or residual meets LDR treatment standard, < 0.26 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Chlordane (alpha and gamma isomers)	57-74-9	Determine if waste or residual meets LDR treatment standard, < 0.26 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Chlorobenzene	108-90-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Chlorobenzene	108-90-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Chlorodibromomethane	124-48-1	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Chlorodibromomethane	124-48-1	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Chloroethane	75-00-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Chloroethane	75-00-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Chloroform	67-66-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Chloroform	67-66-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Chloromethane (Methyl chloride)	74-87-3	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Chloromethane (Methyl chloride)	74-87-3	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Chromium (Total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Chromium (Total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Chrysene	218-01-9	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Chrysene	218-01-9	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	cis-1,3-Dichloropropylene	10061-01-5	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8021	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	cis-1,3-Dichloropropylene	10061-01-5	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8021	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Cyanides (Total)7	57-12-5	Determine if waste or residual meets LDR treatment standard, < 590 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	Cyanides (Total)7	57-12-5	Determine if waste or residual meets LDR treatment standard, < 590 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	delta-BHC	319-86-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	delta-BHC	319-86-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Dibenz(a,h)anthracene	53-70-3	Determine if waste or residual meets LDR treatment standard, < 8.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Dibenz(a,h)anthracene	53-70-3	Determine if waste or residual meets LDR treatment standard, < 8.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Dibromomethane	74-95-3	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Dibromomethane	74-95-3	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Dichlorodifluoromethane	75-71-8	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Dichlorodifluoromethane	75-71-8	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Dieldrin	60-57-1	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Dieldrin	60-57-1	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Diethyl phthalate	84-66-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Diethyl phthalate	84-66-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Dimethyl phthalate	131-11-3	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Dimethyl phthalate	131-11-3	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Di-n-butyl phthalate	84-74-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Di-n-butyl phthalate	84-74-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Di-n-octyl phthalate	117-84-0	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Di-n-octyl phthalate	117-84-0	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Di-n-propylnitrosamine	621-64-7	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Di-n-propylnitrosamine	621-64-7	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Disulfoton	298-04-4	Determine if waste or residual meets LDR treatment standard, < 6.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	Disulfoton	298-04-4	Determine if waste or residual meets LDR treatment standard, < 6.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Endosulfan I	939-98-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Endosulfan I	939-98-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Endosulfan II	33213-6-5	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Endosulfan II	33213-6-5	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Endosulfan sulfate	1031-07-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Endosulfan sulfate	1031-07-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Endrin	72-20-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Endrin	72-20-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Endrin aldehyde	7421-93-4	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Endrin aldehyde	7421-93-4	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Ethyl acetate	141-78-6	Determine if waste or residual meets LDR treatment standard, < 33 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Ethyl acetate	141-78-6	Determine if waste or residual meets LDR treatment standard, < 33 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Ethyl benzene	100-41-4	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Ethyl benzene	100-41-4	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Ethyl cyanide (Propanenitrile)	107-12-0	Determine if waste or residual meets LDR treatment standard, < 360 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Ethyl cyanide (Propanenitrile)	107-12-0	Determine if waste or residual meets LDR treatment standard, < 360 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Ethyl ether	60-29-7	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Ethyl ether	60-29-7	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Ethyl methacrylate	97-63-2	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Ethyl methacrylate	97-63-2	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Famphur	52-85-7	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Famphur	52-85-7	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Fluoranthene	206-44-0	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Fluoranthene	206-44-0	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Fluorene	86-73-7	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Fluorene	86-73-7	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	gamma-BHC	58-89-9	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	gamma-BHC	58-89-9	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Heptachlor	76-44-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Heptachlor	76-44-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Heptachlor epoxide	1024-57-3	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Heptachlor epoxide	1024-57-3	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Hexachlorobenzene	118-74-1	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Hexachlorobenzene	118-74-1	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Hexachlorobutadiene	87-68-3	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Hexachlorobutadiene	87-68-3	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Hexachlorocyclopentadiene	77-47-4	Determine if waste or residual meets LDR treatment standard, < 2.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Hexachlorocyclopentadiene	77-47-4	Determine if waste or residual meets LDR treatment standard, < 2.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Hexachloroethane	67-72-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Hexachloroethane	67-72-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Hexachloropropylene	1888-71-7	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	Hexachloropropylene	1888-71-7	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	HxCDFs (All Hexachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	HxCDFs (All Hexachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Indeno (1,2,3-c,d) pyrene	193-39-5	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Indeno (1,2,3-c,d) pyrene	193-39-5	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Indomethane	74-88-4	Determine if waste or residual meets LDR treatment standard, < 65 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Indomethane	74-88-4	Determine if waste or residual meets LDR treatment standard, < 65 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Isobutyl alcohol	78-83-1	Determine if waste or residual meets LDR treatment standard, < 170 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Isobutyl alcohol	78-83-1	Determine if waste or residual meets LDR treatment standard, < 170 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Isodrin	465-73-6	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Isodrin	465-73-6	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Isosafrole	120-58-1	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Isosafrole	120-58-1	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Kepone	143-50-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Kepone	143-50-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	m-Dichlorobenzene	541-73-1	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8410	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	m-Dichlorobenzene	541-73-1	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8410	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Mercury	7439-97-6	Determine if waste or residual meets LDR treatment standard, < 0.25 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7471B, 7473	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Mercury	7439-97-6	Determine if waste or residual meets LDR treatment standard, < 0.25 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7471B, 7473	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Methacylonitrile	126-98-7	Determine if waste or residual meets LDR treatment standard, < 84 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Methacylonitrile	126-98-7	Determine if waste or residual meets LDR treatment standard, < 84 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Methapyrilene	91-80-5	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Methapyrilene	91-80-5	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Methoxychlor	72-43-5	Determine if waste or residual meets LDR treatment standard, < 0.18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Methoxychlor	72-43-5	Determine if waste or residual meets LDR treatment standard, < 0.18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Methyl bromide (Bromomethane)	74-83-9	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Methyl bromide (Bromomethane)	74-83-9	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Methyl ethyl ketone	78-93-3	Determine if waste or residual meets LDR treatment standard, < 36 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Methyl ethyl ketone	78-93-3	Determine if waste or residual meets LDR treatment standard, < 36 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Methyl isobutyl ketone	108-10-1	Determine if waste or residual meets LDR treatment standard, < 33 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Methyl isobutyl ketone	108-10-1	Determine if waste or residual meets LDR treatment standard, < 33 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Methyl methacrylate	80-62-6	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Methyl methacrylate	80-62-6	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Methyl parathion	298-00-0	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Methyl parathion	298-00-0	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Methylene chloride	75-09-2	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Methylene chloride	75-09-2	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Naphthalene	91-20-3	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	Naphthalene	91-20-3	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	n-Butyl alcohol	71-36-3	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	n-Butyl alcohol	71-36-3	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Nickel	7440-02-0	Determine if waste or residual meets LDR treatment standard, < 11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Nickel	7440-02-0	Determine if waste or residual meets LDR treatment standard, < 11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Nitrobenzene	98-95-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Nitrobenzene	98-95-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	N-Nitrosodiethylamine	55-18-5	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	N-Nitrosodiethylamine	55-18-5	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	N-Nitroso-di-n-butylamine	924-16-3	Determine if waste or residual meets LDR treatment standard, < 17 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	N-Nitroso-di-n-butylamine	924-16-3	Determine if waste or residual meets LDR treatment standard, < 17 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	N-Nitrosomethylethylamine	10595-95-6	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	N-Nitrosomethylethylamine	10595-95-6	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	N-Nitrosomorpholine	59-89-2	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	N-Nitrosomorpholine	59-89-2	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	N-Nitrosopiperidine	100-75-4	Determine if waste or residual meets LDR treatment standard, < 35 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	N-Nitrosopiperidine	100-75-4	Determine if waste or residual meets LDR treatment standard, < 35 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	N-Nitrosopyrrolidine	930-55-2	Determine if waste or residual meets LDR treatment standard, < 35 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	N-Nitrosopyrrolidine	930-55-2	Determine if waste or residual meets LDR treatment standard, < 35 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	o,p'-DD	53-19-0	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	o,p'-DD	53-19-0	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	o,p'-DDE	3424-82-6	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	o,p'-DDE	3424-82-6	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	o,p'-DDT	789-02-6	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	o,p'-DDT	789-02-6	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	o-Anisidine (2-methoxyaniline)	90-04-0	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	o-Anisidine (2-methoxyaniline)	90-04-0	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	o-Cresol	95-48-7	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	o-Cresol	95-48-7	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	o-Dichlorobenzene	95-50-1	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	o-Dichlorobenzene	95-50-1	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p,p'-DDD	72-54-8	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	p,p'-DDD	72-54-8	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p,p'-DDE	72-55-9	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	p,p'-DDE	72-55-9	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p,p'-DDT	50-29-3	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	p,p'-DDT	50-29-3	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Parathion	56-38-2	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8141	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Parathion	56-38-2	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8141	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8082	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8082	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p-Chloroaniline	106-47-8	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	p-Chloroaniline	106-47-8	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p-Chloro-m-cresol	59-50-7	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	p-Chloro-m-cresol	59-50-7	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p-Cresidine	120-71-8	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	p-Cresidine	120-71-8	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p-Dichlorobenzene	106-46-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	p-Dichlorobenzene	106-46-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	PeCDFs (All Pentachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	PeCDFs (All Pentachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Pentachlorobenzene	608-93-5	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Pentachlorobenzene	608-93-5	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Pentachloronitrobenzene	82-68-8	Determine if waste or residual meets LDR treatment standard, < 4.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Pentachloronitrobenzene	82-68-8	Determine if waste or residual meets LDR treatment standard, < 4.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Pentachlorophenol	87-86-5	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Pentachlorophenol	87-86-5	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Phenacetin	62-44-2	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Phenacetin	62-44-2	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Phenanthrene	85-01-8	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Phenanthrene	85-01-8	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Phenol	108-95-2	Determine if waste or residual meets LDR treatment standard, < 6.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	Phenol	108-95-2	Determine if waste or residual meets LDR treatment standard, < 6.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Phorate	298-02-2	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Phorate	298-02-2	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p-Nitroaniline	100-01-6	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	p-Nitroaniline	100-01-6	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	p-Nitrophenol	100-02-7	Determine if waste or residual meets LDR treatment standard, < 29 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8410	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	p-Nitrophenol	100-02-7	Determine if waste or residual meets LDR treatment standard, < 29 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8410	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Pronamide	23950-58-5	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Pronamide	23950-58-5	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Pyrene	129-00-0	Determine if waste or residual meets LDR treatment standard, < 8.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Pyrene	129-00-0	Determine if waste or residual meets LDR treatment standard, < 8.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Pyridine	110-86-1	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Pyridine	110-86-1	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Safrole	94-59-7	Determine if waste or residual meets LDR treatment standard, < 22 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Safrole	94-59-7	Determine if waste or residual meets LDR treatment standard, < 22 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Selenium	7782-49-2	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Selenium	7782-49-2	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Silver	7440-22-4	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Silver	7440-22-4	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Silvex (2,4,5-TP)	93-72-1	Determine if waste or residual meets LDR treatment standard, < 7.9 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Silvex (2,4,5-TP)	93-72-1	Determine if waste or residual meets LDR treatment standard, < 7.9 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
F039	LDR-nonwastewater	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	TCDFs (All Tetrachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	TCDFs (All Tetrachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Tetrachloroethylene	127-18-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Tetrachloroethylene	127-18-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Toluene	108-88-3	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Toluene	108-88-3	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Toxaphene	8001-35-2	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Toxaphene	8001-35-2	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	trans-1,2-Dichloroethylene	156-60-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	trans-1,2-Dichloroethylene	156-60-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	trans-1,3-Dichloropropylene	10061-02-6	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	trans-1,3-Dichloropropylene	10061-02-6	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Trichloroethylene	79-01-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Trichloroethylene	79-01-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Trichlorofluoromethane	75-69-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Trichlorofluoromethane	75-69-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Vinyl chloride	75-01-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Vinyl chloride	75-01-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-wastewater	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
F039	LDR-nonwastewater	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1, 2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8	LDR-nonwastewater	1, 2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC 1, 2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8	LDR-wastewater	1, 2,3,4,6,7,8-Heptachlorodibenzofuran (1,2,3,4,6,7,8-HpCDF)	67562-39-4	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC 1,1,1,2-Tetrachloroethane	LDR-nonwastewater	1,1,1,2-Tetrachloroethane	630-20-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1,1,2-Tetrachloroethane	LDR-wastewater	1,1,1,2-Tetrachloroethane	630-20-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1,1-Trichloroethane	LDR-nonwastewater	1,1,1-Trichloroethane	71-55-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1,1-Trichloroethane	LDR-wastewater	1,1,1-Trichloroethane	71-55-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1,2,2-Tetrachloroethane	LDR-nonwastewater	1,1,2,2-Tetrachloroethane	79-34-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1,2,2-Tetrachloroethane	LDR-wastewater	1,1,2,2-Tetrachloroethane	79-34-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1,2-Trichloro-1,2,2-trifluoroethane	LDR-nonwastewater	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC 1,1,2-Trichloro-1,2,2-trifluoroethane	LDR-wastewater	1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC 1,1,2-Trichloroethane	LDR-nonwastewater	1,1,2-Trichloroethane	79-00-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1,2-Trichloroethane	LDR-wastewater	1,1,2-Trichloroethane	79-00-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1-Dichloroethane	LDR-nonwastewater	1,1-Dichloroethane	75-34-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1-Dichloroethane	LDR-wastewater	1,1-Dichloroethane	75-34-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1-Dichloroethylene	LDR-nonwastewater	1,1-Dichloroethylene	75-35-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,1-Dichloroethylene	LDR-wastewater	1,1-Dichloroethylene	75-35-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	LDR-nonwastewater	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	Determine if waste or residual meets LDR treatment standard, < 0.005 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC 1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	LDR-wastewater	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	39001-02-0	Determine if waste or residual meets LDR treatment standard, < 0.005 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	LDR-nonwastewater	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Determine if waste or residual meets LDR treatment standard, < 0.005 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC 1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	LDR-wastewater	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	3268-87-9	Determine if waste or residual meets LDR treatment standard, < 0.005 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,	LDR-nonwastewater	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC 1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,	LDR-wastewater	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (1,2,3,4,6,7,8-HpCDD)	35822-46-9	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC 1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-	LDR-nonwastewater	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC 1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-	LDR-wastewater	1,2,3,4,7,8,9-Heptachlorodibenzofuran (1,2,3,4,7,8,9-HpCDF)	55673-89-7	Determine if waste or residual meets LDR treatment standard, < 0.0025 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC 1,2,3-Trichloropropane	LDR-nonwastewater	1,2,3-Trichloropropane	96-18-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2,3-Trichloropropane	LDR-wastewater	1,2,3-Trichloropropane	96-18-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2,4,5-Tetrachlorobenzene	LDR-nonwastewater	1,2,4,5-Tetrachlorobenzene	95-94-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
UHC 1,2,4,5-Tetrachlorobenzene	LDR-wastewater	1,2,4,5-Tetrachlorobenzene	95-94-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
UHC 1,2,4-Trichlorobenzene	LDR-nonwastewater	1,2,4-Trichlorobenzene	120-82-1	Determine if waste or residual meets LDR treatment standard, < 19 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2,4-Trichlorobenzene	LDR-wastewater	1,2,4-Trichlorobenzene	120-82-1	Determine if waste or residual meets LDR treatment standard, < 19 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2-Dibromo-3-chloropropane	LDR-nonwastewater	1,2-Dibromo-3-chloropropane	96-12-8	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2-Dibromo-3-chloropropane	LDR-wastewater	1,2-Dibromo-3-chloropropane	96-12-8	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2-Dichloroethane	LDR-nonwastewater	1,2-Dichloroethane	107-06-2	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2-Dichloroethane	LDR-wastewater	1,2-Dichloroethane	107-06-2	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2-Dichloropropane	LDR-nonwastewater	1,2-Dichloropropane	78-87-5	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,2-Dichloropropane	LDR-wastewater	1,2-Dichloropropane	78-87-5	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,4-Dinitrobenzene	LDR-nonwastewater	1,4-Dinitrobenzene	100-25-4	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 1,4-Dinitrobenzene	LDR-wastewater	1,4-Dinitrobenzene	100-25-4	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 1,4-Dioxane	LDR-nonwastewater	1,4-Dioxane	123-91-1	Determine if waste or residual meets LDR treatment standard, < 170 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 1,4-Dioxane	LDR-wastewater	1,4-Dioxane	123-91-1	Determine if waste or residual meets LDR treatment standard, < 170 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 2,3,4,6-Tetrachlorophenol	LDR-nonwastewater	2,3,4,6-Tetrachlorophenol	58-90-2	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 2,3,4,6-Tetrachlorophenol	LDR-wastewater	2,3,4,6-Tetrachlorophenol	58-90-2	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 2,4,5-T	LDR-nonwastewater	2,4,5-T	93-76-5	Determine if waste or residual meets LDR treatment standard, < 7.9 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
UHC 2,4,5-T	LDR-wastewater	2,4,5-T	93-76-5	Determine if waste or residual meets LDR treatment standard, < 7.9 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
UHC 2,4,5-Trichlorophenol	LDR-nonwastewater	2,4,5-Trichlorophenol	95-95-4	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC 2,4,5-Trichlorophenol	LDR-wastewater	2,4,5-Trichlorophenol	95-95-4	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 2,4,6-Trichlorophenol	LDR-nonwastewater	2,4,6-Trichlorophenol	88-06-2	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,4,6-Trichlorophenol	LDR-wastewater	2,4,6-Trichlorophenol	88-06-2	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,4-D (2,4-Dichlorophenoxyacetic acid)	LDR-nonwastewater	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
UHC 2,4-D (2,4-Dichlorophenoxyacetic acid)	LDR-wastewater	2,4-D (2,4-Dichlorophenoxyacetic acid)	94-75-7	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8321	listed = each batch**, non-listed = once per week
UHC 2,4-Dichlorophenol	LDR-nonwastewater	2,4-Dichlorophenol	120-83-2	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,4-Dichlorophenol	LDR-wastewater	2,4-Dichlorophenol	120-83-2	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,4-Dimethylaniline (2,4-xylidine)	LDR-nonwastewater	2,4-Dimethylaniline (2,4-xylidine)	95-68-1	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC 2,4-Dimethylaniline (2,4-xylidine)	LDR-nonwastewater	2,4-Dimethylaniline (2,4-xylidine)	108-45-2	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC 2,4-Dimethylaniline (2,4-xylidine)	LDR-wastewater	2,4-Dimethylaniline (2,4-xylidine)	95-68-1	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC 2,4-Dimethylaniline (2,4-xylidine)	LDR-wastewater	2,4-Dimethylaniline (2,4-xylidine)	108-45-2	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC 2,4-Dinitrophenol	LDR-nonwastewater	2,4-Dinitrophenol	51-28-5	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,4-Dinitrophenol	LDR-wastewater	2,4-Dinitrophenol	51-28-5	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,4-Dinitrotoluene	LDR-nonwastewater	2,4-Dinitrotoluene	121-14-2	Determine if waste or residual meets LDR treatment standard, < 140 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,4-Dinitrotoluene	LDR-wastewater	2,4-Dinitrotoluene	121-14-2	Determine if waste or residual meets LDR treatment standard, < 140 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,6-Dichlorophenol	LDR-nonwastewater	2,6-Dichlorophenol	87-65-0	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,6-Dichlorophenol	LDR-wastewater	2,6-Dichlorophenol	87-65-0	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,6-Dinitrotoluene	LDR-nonwastewater	2,6-Dinitrotoluene	606-20-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2,6-Dinitrotoluene	LDR-wastewater	2,6-Dinitrotoluene	606-20-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2-4-Dimethyl phenol	LDR-nonwastewater	2-4-Dimethyl phenol	105-67-9	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2-4-Dimethyl phenol	LDR-wastewater	2-4-Dimethyl phenol	105-67-9	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2-Acetylaminofluorene	LDR-nonwastewater	2-Acetylaminofluorene	53-96-3	Determine if waste or residual meets LDR treatment standard, < 140 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC 2-Acetylaminofluorene	LDR-wastewater	2-Acetylaminofluorene	53-96-3	Determine if waste or residual meets LDR treatment standard, < 140 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2-Chloro-1,3-butadiene	LDR-nonwastewater	2-Chloro-1,3-butadiene	126-99-8	Determine if waste or residual meets LDR treatment standard, < 0.28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC 2-Chloro-1,3-butadiene	LDR-wastewater	2-Chloro-1,3-butadiene	126-99-8	Determine if waste or residual meets LDR treatment standard, < 0.28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC 2-Chloronaphthalene	LDR-nonwastewater	2-Chloronaphthalene	91-58-7	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2-Chloronaphthalene	LDR-wastewater	2-Chloronaphthalene	91-58-7	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2-Chlorophenol	LDR-nonwastewater	2-Chlorophenol	95-57-8	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2-Chlorophenol	LDR-wastewater	2-Chlorophenol	95-57-8	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 2-sec-Buty-4,6-dinitrophenol (Dinoseb)	LDR-nonwastewater	2-sec-Buty-4,6-dinitrophenol (Dinoseb)	88-85-7	Determine if waste or residual meets LDR treatment standard, < 2.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC 2-sec-Buty-4,6-dinitrophenol (Dinoseb)	LDR-wastewater	2-sec-Buty-4,6-dinitrophenol (Dinoseb)	88-85-7	Determine if waste or residual meets LDR treatment standard, < 2.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC 3-Chloropropylene	LDR-nonwastewater	3-Chloropropylene	107-05-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 3-Chloropropylene	LDR-wastewater	3-Chloropropylene	107-05-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC 3-Methylcholanthrene	LDR-nonwastewater	3-Methylcholanthrene	56-49-5	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 3-Methylcholanthrene	LDR-wastewater	3-Methylcholanthrene	56-49-5	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 4,4-Methylene bis(2-chloroaniline)	LDR-nonwastewater	4,4-Methylene bis(2-chloroaniline)	101-14-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 4,4-Methylene bis(2-chloroaniline)	LDR-wastewater	4,4-Methylene bis(2-chloroaniline)	101-14-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 4,6-Dinitro-o-cresol	LDR-nonwastewater	4,6-Dinitro-o-cresol	534-52-1	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC 4,6-Dinitro-o-cresol	LDR-wastewater	4,6-Dinitro-o-cresol	534-52-1	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC 4-Bromophenyl phenyl ether	LDR-nonwastewater	4-Bromophenyl phenyl ether	101-55-3	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 4-Bromophenyl phenyl ether	LDR-wastewater	4-Bromophenyl phenyl ether	101-55-3	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 5-Nitro-o-toluidine	LDR-nonwastewater	5-Nitro-o-toluidine	99-55-8	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC 5-Nitro-o-toluidine	LDR-wastewater	5-Nitro-o-toluidine	99-55-8	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Acenaphthene	LDR-nonwastewater	Acenaphthene	83-32-9	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Acenaphthene	LDR-wastewater	Acenaphthene	83-32-9	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Acenaphthylene	LDR-nonwastewater	Acenaphthylene	208-96-8	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Acenaphthylene	LDR-wastewater	Acenaphthylene	208-96-8	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Acetone	LDR-nonwastewater	Acetone	67-64-1	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Acetone	LDR-wastewater	Acetone	67-64-1	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Acetonitrile	LDR-nonwastewater	Acetonitrile	75-05-8	Determine if waste or residual meets LDR treatment standard, < 38 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Acetonitrile	LDR-wastewater	Acetonitrile	75-05-8	Determine if waste or residual meets LDR treatment standard, < 38 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Acetophenone	LDR-nonwastewater	Acetophenone	96-86-2	Determine if waste or residual meets LDR treatment standard, < 9.7 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Acetophenone	LDR-wastewater	Acetophenone	96-86-2	Determine if waste or residual meets LDR treatment standard, < 9.7 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Acrylamide	LDR-nonwastewater	Acrylamide	79-06-1	Determine if waste or residual meets LDR treatment standard, < 23 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Acrylamide	LDR-wastewater	Acrylamide	79-06-1	Determine if waste or residual meets LDR treatment standard, < 23 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Acrylonitrile	LDR-nonwastewater	Acrylonitrile	107-13-1	Determine if waste or residual meets LDR treatment standard, < 84 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Acrylonitrile	LDR-wastewater	Acrylonitrile	107-13-1	Determine if waste or residual meets LDR treatment standard, < 84 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Aldrin	LDR-nonwastewater	Aldrin	309-00-2	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Aldrin	LDR-wastewater	Aldrin	309-00-2	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC alpha-BHC	LDR-nonwastewater	alpha-BHC	319-84-6	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC alpha-BHC	LDR-wastewater	alpha-BHC	319-84-6	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC Aniline	LDR-nonwastewater	Aniline	62-53-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Aniline	LDR-wastewater	Aniline	62-53-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Anthracene	LDR-nonwastewater	Anthracene	120-12-7	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Anthracene	LDR-wastewater	Anthracene	120-12-7	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Antimony	LDR-nonwastewater	Antimony	7440-36-0	Determine if waste or residual meets LDR treatment standard, < 1.15 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Antimony	LDR-wastewater	Antimony	7440-36-0	Determine if waste or residual meets LDR treatment standard, < 1.15 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Arsenic	LDR-nonwastewater	Arsenic	7440-38-2	Determine if waste or residual meets LDR treatment standard, < 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Arsenic	LDR-wastewater	Arsenic	7440-38-2	Determine if waste or residual meets LDR treatment standard, < 5.0 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Barium	LDR-nonwastewater	Barium	7440-39-3	Determine if waste or residual meets LDR treatment standard, < 21 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Barium	LDR-wastewater	Barium	7440-39-3	Determine if waste or residual meets LDR treatment standard, < 21 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Benz(a)anthracene	LDR-nonwastewater	Benz(a)anthracene	56-55-3	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Benz(a)anthracene	LDR-wastewater	Benz(a)anthracene	56-55-3	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Benzal chloride	LDR-nonwastewater	Benzal chloride	98-87-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Benzal chloride	LDR-wastewater	Benzal chloride	98-87-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Benzene	LDR-nonwastewater	Benzene	71-43-2	Determine if waste or residual meets LDR treatment standard, < 10.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Benzene	LDR-wastewater	Benzene	71-43-2	Determine if waste or residual meets LDR treatment standard, < 10.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Benzo(a)pyrene	LDR-nonwastewater	Benzo(a)pyrene	50-32-8	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Benzo(a)pyrene	LDR-wastewater	Benzo(a)pyrene	50-32-8	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Benzo(b)fluoranthene (difficult to distinguish from be	LDR-nonwastewater	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	Determine if waste or residual meets LDR treatment standard, < 6.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Benzo(b)fluoranthene (difficult to distinguish from be	LDR-wastewater	Benzo(b)fluoranthene (difficult to distinguish from benzo(k)fluoranthene)	205-99-2	Determine if waste or residual meets LDR treatment standard, < 6.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Benzo(g,h,i)perylene	LDR-nonwastewater	Benzo(g,h,i)perylene	191-24-2	Determine if waste or residual meets LDR treatment standard, < 1.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Benzo(g,h,i)perylene	LDR-wastewater	Benzo(g,h,i)perylene	191-24-2	Determine if waste or residual meets LDR treatment standard, < 1.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Benzo(k)fluoranthene (difficult to distinguish from be	LDR-nonwastewater	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	Determine if waste or residual meets LDR treatment standard, < 6.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Benzo(k)fluoranthene (difficult to distinguish from be	LDR-wastewater	Benzo(k)fluoranthene (difficult to distinguish from benzo(b)fluoranthene)	207-08-9	Determine if waste or residual meets LDR treatment standard, < 6.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Beryllium	LDR-nonwastewater	Beryllium	7440-41-7	Determine if waste or residual meets LDR treatment standard, < 1.22 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Beryllium	LDR-wastewater	Beryllium	7440-41-7	Determine if waste or residual meets LDR treatment standard, < 1.22 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC beta-BHC	LDR-nonwastewater	beta-BHC	319-85-7	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC beta-BHC	LDR-wastewater	beta-BHC	319-85-7	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC is(2-Chloroethoxy)methane	LDR-nonwastewater	bis(2-Chloroethoxy)methane	111-91-1	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC is(2-Chloroethoxy)methane	LDR-wastewater	bis(2-Chloroethoxy)methane	111-91-1	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC bis(2-Chloroethyl)ether	LDR-nonwastewater	bis(2-Chloroethyl)ether	111-44-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC bis(2-Chloroethyl)ether	LDR-wastewater	bis(2-Chloroethyl)ether	111-44-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC bis(2-Chloroisopropyl)ether	LDR-nonwastewater	bis(2-Chloroisopropyl)ether	39638-32-9	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC bis(2-Chloroisopropyl)ether	LDR-wastewater	bis(2-Chloroisopropyl)ether	39638-32-9	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC bis(2-Ethylhexyl) phthalate	LDR-nonwastewater	bis(2-Ethylhexyl) phthalate	117-81-7	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC bis(2-Ethylhexyl) phthalate	LDR-wastewater	bis(2-Ethylhexyl) phthalate	117-81-7	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Bromodichloromethane	LDR-nonwastewater	Bromodichloromethane	75-27-4	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Bromodichloromethane	LDR-wastewater	Bromodichloromethane	75-27-4	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Bromoform (Tribromomethane)	LDR-nonwastewater	Bromoform (Tribromomethane)	75-25-2	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Bromoform (Tribromomethane)	LDR-wastewater	Bromoform (Tribromomethane)	75-25-2	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Butyl benzyl phthalate	LDR-nonwastewater	Butyl benzyl phthalate	85-68-7	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Butyl benzyl phthalate	LDR-wastewater	Butyl benzyl phthalate	85-68-7	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Cadmium	LDR-nonwastewater	Cadmium	7440-43-9	Determine if waste or residual meets LDR treatment standard, < 0.11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Cadmium	LDR-wastewater	Cadmium	7440-43-9	Determine if waste or residual meets LDR treatment standard, < 0.11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Carbon disulfide	LDR-nonwastewater	Carbon disulfide	75-15-0	Determine if waste or residual meets LDR treatment standard, < 4.8 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Carbon disulfide	LDR-wastewater	Carbon disulfide	75-15-0	Determine if waste or residual meets LDR treatment standard, < 4.8 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Carbon tetrachloride	LDR-nonwastewater	Carbon tetrachloride	56-23-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Carbon tetrachloride	LDR-wastewater	Carbon tetrachloride	56-23-5	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chlordane (alpha and gamma isomers)	LDR-nonwastewater	Chlordane (alpha and gamma isomers)	57-74-9	Determine if waste or residual meets LDR treatment standard, < 0.26 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Chlordane (alpha and gamma isomers)	LDR-wastewater	Chlordane (alpha and gamma isomers)	57-74-9	Determine if waste or residual meets LDR treatment standard, < 0.26 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Chlorobenzene	LDR-nonwastewater	Chlorobenzene	108-90-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chlorobenzene	LDR-wastewater	Chlorobenzene	108-90-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chlorodibromomethane	LDR-nonwastewater	Chlorodibromomethane	124-48-1	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chlorodibromomethane	LDR-wastewater	Chlorodibromomethane	124-48-1	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chloroethane	LDR-nonwastewater	Chloroethane	75-00-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chloroethane	LDR-wastewater	Chloroethane	75-00-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chloroform	LDR-nonwastewater	Chloroform	67-66-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chloroform	LDR-wastewater	Chloroform	67-66-3	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chloromethane (Methyl chloride)	LDR-nonwastewater	Chloromethane (Methyl chloride)	74-87-3	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chloromethane (Methyl chloride)	LDR-wastewater	Chloromethane (Methyl chloride)	74-87-3	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Chromium (Total)	LDR-nonwastewater	Chromium (Total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Chromium (Total)	LDR-wastewater	Chromium (Total)	7440-47-3	Determine if waste or residual meets LDR treatment standard, < 0.60 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Chrysene	LDR-nonwastewater	Chrysene	218-01-9	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Chrysene	LDR-wastewater	Chrysene	218-01-9	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC cis-1,3-Dichloropropylene	LDR-nonwastewater	cis-1,3-Dichloropropylene	10061-01-5	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8021	listed = each batch**, non-listed = once per week
UHC cis-1,3-Dichloropropylene	LDR-wastewater	cis-1,3-Dichloropropylene	10061-01-5	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8021	listed = each batch**, non-listed = once per week
UHC Cyanides (Amenable)4	LDR-nonwastewater	Cyanides (Amenable)4	57-12-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Cyanides (Amenable)4	LDR-wastewater	Cyanides (Amenable)4	57-12-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Cyanides (Total)7	LDR-nonwastewater	Cyanides (Total)7	57-12-5	Determine if waste or residual meets LDR treatment standard, < 590 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
UHC Cyanides (Total)7	LDR-wastewater	Cyanides (Total)7	57-12-5	Determine if waste or residual meets LDR treatment standard, < 590 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 9010C or 9012B	listed = each batch**, non-listed = once per week
UHC Cyclohexanone	LDR-nonwastewater	Cyclohexanone	108-94-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Cyclohexanone	LDR-wastewater	Cyclohexanone	108-94-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC delta-BHC	LDR-nonwastewater	delta-BHC	319-86-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC delta-BHC	LDR-wastewater	delta-BHC	319-86-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC Dibenz(a,h)anthracene	LDR-nonwastewater	Dibenz(a,h)anthracene	53-70-3	Determine if waste or residual meets LDR treatment standard, < 8.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Dibenz(a,h)anthracene	LDR-wastewater	Dibenz(a,h)anthracene	53-70-3	Determine if waste or residual meets LDR treatment standard, < 8.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Dibromomethane	LDR-nonwastewater	Dibromomethane	74-95-3	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Dibromomethane	LDR-wastewater	Dibromomethane	74-95-3	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Dichlorodifluoromethane	LDR-nonwastewater	Dichlorodifluoromethane	75-71-8	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Dichlorodifluoromethane	LDR-wastewater	Dichlorodifluoromethane	75-71-8	Determine if waste or residual meets LDR treatment standard, < 7.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Dieldrin	LDR-nonwastewater	Dieldrin	60-57-1	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Dieldrin	LDR-wastewater	Dieldrin	60-57-1	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Diethyl phthalate	LDR-nonwastewater	Diethyl phthalate	84-66-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Diethyl phthalate	LDR-wastewater	Diethyl phthalate	84-66-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Dimethyl phthalate	LDR-nonwastewater	Dimethyl phthalate	131-11-3	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Dimethyl phthalate	LDR-wastewater	Dimethyl phthalate	131-11-3	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Di-n-butyl phthalate	LDR-nonwastewater	Di-n-butyl phthalate	84-74-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Di-n-butyl phthalate	LDR-wastewater	Di-n-butyl phthalate	84-74-2	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Di-n-octyl phthalate	LDR-nonwastewater	Di-n-octyl phthalate	117-84-0	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Di-n-octyl phthalate	LDR-wastewater	Di-n-octyl phthalate	117-84-0	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Di-n-propylnitrosamine	LDR-nonwastewater	Di-n-propylnitrosamine	621-64-7	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Di-n-propylnitrosamine	LDR-wastewater	Di-n-propylnitrosamine	621-64-7	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Diphenylamine (difficult to distinguish from diphenyl	LDR-nonwastewater	Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	Determine if waste or residual meets LDR treatment standard, < 13 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Diphenylamine (difficult to distinguish from diphenyl	LDR-wastewater	Diphenylamine (difficult to distinguish from diphenylnitrosamine)	122-39-4	Determine if waste or residual meets LDR treatment standard, < 13 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC DiphenylNitrosamine (difficult to distinguish from dip	LDR-nonwastewater	DiphenylNitrosamine (difficult to distinguish from diphenylamine)	86-30-6	Determine if waste or residual meets LDR treatment standard, < 13 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC DiphenylNitrosamine (difficult to distinguish from dip	LDR-wastewater	DiphenylNitrosamine (difficult to distinguish from diphenylamine)	86-30-6	Determine if waste or residual meets LDR treatment standard, < 13 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Disulfoton	LDR-nonwastewater	Disulfoton	298-04-4	Determine if waste or residual meets LDR treatment standard, < 6.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Disulfoton	LDR-wastewater	Disulfoton	298-04-4	Determine if waste or residual meets LDR treatment standard, < 6.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endosulfan I	LDR-nonwastewater	Endosulfan I	939-98-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endosulfan I	LDR-wastewater	Endosulfan I	939-98-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endosulfan II	LDR-nonwastewater	Endosulfan II	33213-6-5	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endosulfan II	LDR-wastewater	Endosulfan II	33213-6-5	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endosulfan sulfate	LDR-nonwastewater	Endosulfan sulfate	1031-07-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endosulfan sulfate	LDR-wastewater	Endosulfan sulfate	1031-07-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endrin	LDR-nonwastewater	Endrin	72-20-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endrin	LDR-wastewater	Endrin	72-20-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endrin aldehyde	LDR-nonwastewater	Endrin aldehyde	7421-93-4	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Endrin aldehyde	LDR-wastewater	Endrin aldehyde	7421-93-4	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Ethyl acetate	LDR-nonwastewater	Ethyl acetate	141-78-6	Determine if waste or residual meets LDR treatment standard, < 33 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethyl acetate	LDR-wastewater	Ethyl acetate	141-78-6	Determine if waste or residual meets LDR treatment standard, < 33 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethyl benzene	LDR-nonwastewater	Ethyl benzene	100-41-4	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethyl benzene	LDR-wastewater	Ethyl benzene	100-41-4	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethyl cyanide (Propanenitrile)	LDR-nonwastewater	Ethyl cyanide (Propanenitrile)	107-12-0	Determine if waste or residual meets LDR treatment standard, < 360 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethyl cyanide (Propanenitrile)	LDR-wastewater	Ethyl cyanide (Propanenitrile)	107-12-0	Determine if waste or residual meets LDR treatment standard, < 360 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethyl ether	LDR-nonwastewater	Ethyl ether	60-29-7	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Ethyl ether	LDR-wastewater	Ethyl ether	60-29-7	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethyl methacrylate	LDR-nonwastewater	Ethyl methacrylate	97-63-2	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethyl methacrylate	LDR-wastewater	Ethyl methacrylate	97-63-2	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethylene dibromide (1,2-Dibromoethane)	LDR-nonwastewater	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Ethylene dibromide (1,2-Dibromoethane)	LDR-wastewater	Ethylene dibromide (1,2-Dibromoethane)	106-93-4	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Famphur	LDR-nonwastewater	Famphur	52-85-7	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Famphur	LDR-wastewater	Famphur	52-85-7	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Fluoranthene	LDR-nonwastewater	Fluoranthene	206-44-0	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Fluoranthene	LDR-wastewater	Fluoranthene	206-44-0	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Fluorene	LDR-nonwastewater	Fluorene	86-73-7	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Fluorene	LDR-wastewater	Fluorene	86-73-7	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC gamma-BHC	LDR-nonwastewater	gamma-BHC	58-89-9	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC gamma-BHC	LDR-wastewater	gamma-BHC	58-89-9	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC Heptachlor	LDR-nonwastewater	Heptachlor	76-44-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Heptachlor	LDR-wastewater	Heptachlor	76-44-8	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Heptachlor epoxide	LDR-nonwastewater	Heptachlor epoxide	1024-57-3	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Heptachlor epoxide	LDR-wastewater	Heptachlor epoxide	1024-57-3	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Hexachlorobenzene	LDR-nonwastewater	Hexachlorobenzene	118-74-1	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Hexachlorobenzene	LDR-wastewater	Hexachlorobenzene	118-74-1	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Hexachlorobutadiene	LDR-nonwastewater	Hexachlorobutadiene	87-68-3	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Hexachlorobutadiene	LDR-wastewater	Hexachlorobutadiene	87-68-3	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Hexachlorocyclopentadiene	LDR-nonwastewater	Hexachlorocyclopentadiene	77-47-4	Determine if waste or residual meets LDR treatment standard, < 2.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Hexachlorocyclopentadiene	LDR-wastewater	Hexachlorocyclopentadiene	77-47-4	Determine if waste or residual meets LDR treatment standard, < 2.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Hexachloroethane	LDR-nonwastewater	Hexachloroethane	67-72-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Hexachloroethane	LDR-wastewater	Hexachloroethane	67-72-1	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Hexachloropropylene	LDR-nonwastewater	Hexachloropropylene	1888-71-7	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Hexachloropropylene	LDR-wastewater	Hexachloropropylene	1888-71-7	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC HxCDDs (All Hexachlorodibenzo-p-dioxins)	LDR-nonwastewater	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC HxCDDs (All Hexachlorodibenzo-p-dioxins)	LDR-wastewater	HxCDDs (All Hexachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC HxCDFs (All Hexachlorodibenzofurans)	LDR-nonwastewater	HxCDFs (All Hexachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC HxCDFs (All Hexachlorodibenzofurans)	LDR-wastewater	HxCDFs (All Hexachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC Indeno (1,2,3-c,d) pyrene	LDR-nonwastewater	Indeno (1,2,3-c,d) pyrene	193-39-5	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Indeno (1,2,3-c,d) pyrene	LDR-wastewater	Indeno (1,2,3-c,d) pyrene	193-39-5	Determine if waste or residual meets LDR treatment standard, < 3.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Indomethane	LDR-nonwastewater	Indomethane	74-88-4	Determine if waste or residual meets LDR treatment standard, < 65 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Indomethane	LDR-wastewater	Indomethane	74-88-4	Determine if waste or residual meets LDR treatment standard, < 65 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Isobutyl alcohol	LDR-nonwastewater	Isobutyl alcohol	78-83-1	Determine if waste or residual meets LDR treatment standard, < 170 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Isobutyl alcohol	LDR-wastewater	Isobutyl alcohol	78-83-1	Determine if waste or residual meets LDR treatment standard, < 170 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Isodrin	LDR-nonwastewater	Isodrin	465-73-6	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Isodrin	LDR-wastewater	Isodrin	465-73-6	Determine if waste or residual meets LDR treatment standard, < 0.066 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Isosafrole	LDR-nonwastewater	Isosafrole	120-58-1	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Isosafrole	LDR-wastewater	Isosafrole	120-58-1	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Kepone	LDR-nonwastewater	Kepone	143-50-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Kepone	LDR-wastewater	Kepone	143-50-8	Determine if waste or residual meets LDR treatment standard, < 0.13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Lead	LDR-nonwastewater	Lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Lead	LDR-wastewater	Lead	7439-92-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC m-Cresol (difficult to distinguish from p-cresol)	LDR-nonwastewater	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC m-Cresol (difficult to distinguish from p-cresol)	LDR-wastewater	m-Cresol (difficult to distinguish from p-cresol)	108-39-4	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC m-Dichlorobenzene	LDR-nonwastewater	m-Dichlorobenzene	541-73-1	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8410	listed = each batch**, non-listed = once per week
UHC m-Dichlorobenzene	LDR-wastewater	m-Dichlorobenzene	541-73-1	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8410	listed = each batch**, non-listed = once per week
UHC Mercury	LDR-nonwastewater	Mercury	7439-97-6	Determine if waste or residual meets LDR treatment standard, < 0.25 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7471B, 7473	listed = each batch**, non-listed = once per week
UHC Mercury	LDR-wastewater	Mercury	7439-97-6	Determine if waste or residual meets LDR treatment standard, < 0.25 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW846 1311, 7471B, 7473	listed = each batch**, non-listed = once per week
UHC Methacylonitrile	LDR-nonwastewater	Methacylonitrile	126-98-7	Determine if waste or residual meets LDR treatment standard, < 84 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methacylonitrile	LDR-wastewater	Methacylonitrile	126-98-7	Determine if waste or residual meets LDR treatment standard, < 84 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methanol	LDR-nonwastewater	Methanol	67-56-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Methanol	LDR-wastewater	Methanol	67-56-1	Determine if waste or residual meets LDR treatment standard, < 0.75 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Methapyrilene	LDR-nonwastewater	Methapyrilene	91-80-5	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Methapyrilene	LDR-wastewater	Methapyrilene	91-80-5	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Methoxychlor	LDR-nonwastewater	Methoxychlor	72-43-5	Determine if waste or residual meets LDR treatment standard, < 0.18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Methoxychlor	LDR-wastewater	Methoxychlor	72-43-5	Determine if waste or residual meets LDR treatment standard, < 0.18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Methyl bromide (Bromomethane)	LDR-nonwastewater	Methyl bromide (Bromomethane)	74-83-9	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methyl bromide (Bromomethane)	LDR-wastewater	Methyl bromide (Bromomethane)	74-83-9	Determine if waste or residual meets LDR treatment standard, < 15 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methyl ethyl ketone	LDR-nonwastewater	Methyl ethyl ketone	78-93-3	Determine if waste or residual meets LDR treatment standard, < 36 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methyl ethyl ketone	LDR-wastewater	Methyl ethyl ketone	78-93-3	Determine if waste or residual meets LDR treatment standard, < 36 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methyl isobutyl ketone	LDR-nonwastewater	Methyl isobutyl ketone	108-10-1	Determine if waste or residual meets LDR treatment standard, < 33 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methyl isobutyl ketone	LDR-wastewater	Methyl isobutyl ketone	108-10-1	Determine if waste or residual meets LDR treatment standard, < 33 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methyl methacrylate	LDR-nonwastewater	Methyl methacrylate	80-62-6	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Methyl methacrylate	LDR-wastewater	Methyl methacrylate	80-62-6	Determine if waste or residual meets LDR treatment standard, < 160 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methyl parathion	LDR-nonwastewater	Methyl parathion	298-00-0	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Methyl parathion	LDR-wastewater	Methyl parathion	298-00-0	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Methylene chloride	LDR-nonwastewater	Methylene chloride	75-09-2	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Methylene chloride	LDR-wastewater	Methylene chloride	75-09-2	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Naphthalene	LDR-nonwastewater	Naphthalene	91-20-3	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Naphthalene	LDR-wastewater	Naphthalene	91-20-3	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC n-Butyl alcohol	LDR-nonwastewater	n-Butyl alcohol	71-36-3	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC n-Butyl alcohol	LDR-wastewater	n-Butyl alcohol	71-36-3	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Nickel	LDR-nonwastewater	Nickel	7440-02-0	Determine if waste or residual meets LDR treatment standard, < 11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Nickel	LDR-wastewater	Nickel	7440-02-0	Determine if waste or residual meets LDR treatment standard, < 11 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Nitrobenzene	LDR-nonwastewater	Nitrobenzene	98-95-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Nitrobenzene	LDR-wastewater	Nitrobenzene	98-95-3	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC N-Nitrosodiethylamine	LDR-nonwastewater	N-Nitrosodiethylamine	55-18-5	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC N-Nitrosodiethylamine	LDR-wastewater	N-Nitrosodiethylamine	55-18-5	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC N-Nitrosodimethylamine	LDR-nonwastewater	N-Nitrosodimethylamine	62-75-9	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC N-Nitrosodimethylamine	LDR-wastewater	N-Nitrosodimethylamine	62-75-9	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC N-Nitroso-di-n-butylamine	LDR-nonwastewater	N-Nitroso-di-n-butylamine	924-16-3	Determine if waste or residual meets LDR treatment standard, < 17 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC N-Nitroso-di-n-butylamine	LDR-wastewater	N-Nitroso-di-n-butylamine	924-16-3	Determine if waste or residual meets LDR treatment standard, < 17 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC N-Nitrosomethylethylamine	LDR-nonwastewater	N-Nitrosomethylethylamine	10595-95-6	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC N-Nitrosomethylethylamine	LDR-wastewater	N-Nitrosomethylethylamine	10595-95-6	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC N-Nitrosomorpholine	LDR-nonwastewater	N-Nitrosomorpholine	59-89-2	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC N-Nitrosomorpholine	LDR-wastewater	N-Nitrosomorpholine	59-89-2	Determine if waste or residual meets LDR treatment standard, < 2.3 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC N-Nitrosopiperidine	LDR-nonwastewater	N-Nitrosopiperidine	100-75-4	Determine if waste or residual meets LDR treatment standard, < 35 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC N-Nitrosopiperidine	LDR-wastewater	N-Nitrosopiperidine	100-75-4	Determine if waste or residual meets LDR treatment standard, < 35 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC N-Nitrosopyrrolidine	LDR-nonwastewater	N-Nitrosopyrrolidine	930-55-2	Determine if waste or residual meets LDR treatment standard, < 35 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC N-Nitrosopyrrolidine	LDR-wastewater	N-Nitrosopyrrolidine	930-55-2	Determine if waste or residual meets LDR treatment standard, < 35 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC o,p'-DD	LDR-nonwastewater	o,p'-DD	53-19-0	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
UHC o,p'-DD	LDR-wastewater	o,p'-DD	53-19-0	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
UHC o,p'-DDE	LDR-nonwastewater	o,p'-DDE	3424-82-6	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
UHC o,p'-DDE	LDR-wastewater	o,p'-DDE	3424-82-6	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
UHC o,p'-DDT	LDR-nonwastewater	o,p'-DDT	789-02-6	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
UHC o,p'-DDT	LDR-wastewater	o,p'-DDT	789-02-6	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8085	listed = each batch**, non-listed = once per week
UHC o-Anisidine (2-methoxyaniline)	LDR-nonwastewater	o-Anisidine (2-methoxyaniline)	90-04-0	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC o-Anisidine (2-methoxyaniline)	LDR-wastewater	o-Anisidine (2-methoxyaniline)	90-04-0	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC o-Cresol	LDR-nonwastewater	o-Cresol	95-48-7	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC o-Cresol	LDR-wastewater	o-Cresol	95-48-7	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC o-Dichlorobenzene	LDR-nonwastewater	o-Dichlorobenzene	95-50-1	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC o-Dichlorobenzene	LDR-wastewater	o-Dichlorobenzene	95-50-1	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC o-nitroaniline	LDR-nonwastewater	o-nitroaniline	88-74-4	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC o-nitroaniline	LDR-wastewater	o-nitroaniline	88-74-4	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC o-nitrophenol	LDR-nonwastewater	o-nitrophenol	88-75-5	Determine if waste or residual meets LDR treatment standard, < 13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC o-nitrophenol	LDR-wastewater	o-nitrophenol	88-75-5	Determine if waste or residual meets LDR treatment standard, < 13 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC p,p'-DDD	LDR-nonwastewater	p,p'-DDD	72-54-8	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC p,p'-DDD	LDR-wastewater	p,p'-DDD	72-54-8	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC p,p'-DDE	LDR-nonwastewater	p,p'-DDE	72-55-9	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC p,p'-DDE	LDR-wastewater	p,p'-DDE	72-55-9	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC p,p'-DDT	LDR-nonwastewater	p,p'-DDT	50-29-3	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC p,p'-DDT	LDR-wastewater	p,p'-DDT	50-29-3	Determine if waste or residual meets LDR treatment standard, < 0.087 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8081	listed = each batch**, non-listed = once per week
UHC Parathion	LDR-nonwastewater	Parathion	56-38-2	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8141	listed = each batch**, non-listed = once per week
UHC Parathion	LDR-wastewater	Parathion	56-38-2	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8141	listed = each batch**, non-listed = once per week
UHC PCBs (sum of all PCB isomers, or all Aroclors)	LDR-nonwastewater	PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8082	listed = each batch**, non-listed = once per week
UHC PCBs (sum of all PCB isomers, or all Aroclors)	LDR-wastewater	PCBs (sum of all PCB isomers, or all Aroclors)	1336-36-3	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8082	listed = each batch**, non-listed = once per week
UHC p-Chloroaniline	LDR-nonwastewater	p-Chloroaniline	106-47-8	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC p-Chloroaniline	LDR-wastewater	p-Chloroaniline	106-47-8	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC p-Chloro-m-cresol	LDR-nonwastewater	p-Chloro-m-cresol	59-50-7	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC p-Chloro-m-cresol	LDR-wastewater	p-Chloro-m-cresol	59-50-7	Determine if waste or residual meets LDR treatment standard, < 14 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC p-Cresidine	LDR-nonwastewater	p-Cresidine	120-71-8	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC p-Cresidine	LDR-wastewater	p-Cresidine	120-71-8	Determine if waste or residual meets LDR treatment standard, < 0.66 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC p-Cresol (difficult to distinguish from m-cresol)	LDR-nonwastewater	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC p-Cresol (difficult to distinguish from m-cresol)	LDR-wastewater	p-Cresol (difficult to distinguish from m-cresol)	106-44-5	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8041	listed = each batch**, non-listed = once per week
UHC p-Dichlorobenzene	LDR-nonwastewater	p-Dichlorobenzene	106-46-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC p-Dichlorobenzene	LDR-wastewater	p-Dichlorobenzene	106-46-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC PeCDDs (All Pentachlorodibenzo-p-dioxins)	LDR-nonwastewater	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC PeCDDs (All Pentachlorodibenzo-p-dioxins)	LDR-wastewater	PeCDDs (All Pentachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC PeCDFs (All Pentachlorodibenzofurans)	LDR-nonwastewater	PeCDFs (All Pentachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC PeCDFs (All Pentachlorodibenzofurans)	LDR-wastewater	PeCDFs (All Pentachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC Pentachlorobenzene	LDR-nonwastewater	Pentachlorobenzene	608-93-5	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pentachlorobenzene	LDR-wastewater	Pentachlorobenzene	608-93-5	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pentachloroethane	LDR-nonwastewater	Pentachloroethane	76-01-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Pentachloroethane	LDR-wastewater	Pentachloroethane	76-01-7	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Pentachloronitrobenzene	LDR-nonwastewater	Pentachloronitrobenzene	82-68-8	Determine if waste or residual meets LDR treatment standard, < 4.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pentachloronitrobenzene	LDR-wastewater	Pentachloronitrobenzene	82-68-8	Determine if waste or residual meets LDR treatment standard, < 4.8 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pentachlorophenol	LDR-nonwastewater	Pentachlorophenol	87-86-5	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pentachlorophenol	LDR-wastewater	Pentachlorophenol	87-86-5	Determine if waste or residual meets LDR treatment standard, < 7.4 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Phenacetin	LDR-nonwastewater	Phenacetin	62-44-2	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Phenacetin	LDR-wastewater	Phenacetin	62-44-2	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Phenanthrene	LDR-nonwastewater	Phenanthrene	85-01-8	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Phenanthrene	LDR-wastewater	Phenanthrene	85-01-8	Determine if waste or residual meets LDR treatment standard, < 5.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Phenol	LDR-nonwastewater	Phenol	108-95-2	Determine if waste or residual meets LDR treatment standard, < 6.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Phenol	LDR-wastewater	Phenol	108-95-2	Determine if waste or residual meets LDR treatment standard, < 6.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Phorate	LDR-nonwastewater	Phorate	298-02-2	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Phorate	LDR-wastewater	Phorate	298-02-2	Determine if waste or residual meets LDR treatment standard, < 4.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Phthalic acid	LDR-nonwastewater	Phthalic acid	100-21-0	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Phthalic acid	LDR-wastewater	Phthalic acid	100-21-0	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Phthalic anhydride	LDR-nonwastewater	Phthalic anhydride	85-44-9	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Phthalic anhydride	LDR-wastewater	Phthalic anhydride	85-44-9	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC p-Nitroaniline	LDR-nonwastewater	p-Nitroaniline	100-01-6	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC p-Nitroaniline	LDR-wastewater	p-Nitroaniline	100-01-6	Determine if waste or residual meets LDR treatment standard, < 28 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC p-Nitrophenol	LDR-nonwastewater	p-Nitrophenol	100-02-7	Determine if waste or residual meets LDR treatment standard, < 29 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8410	listed = each batch**, non-listed = once per week
UHC p-Nitrophenol	LDR-wastewater	p-Nitrophenol	100-02-7	Determine if waste or residual meets LDR treatment standard, < 29 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8410	listed = each batch**, non-listed = once per week
UHC Pronamide	LDR-nonwastewater	Pronamide	23950-58-5	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pronamide	LDR-wastewater	Pronamide	23950-58-5	Determine if waste or residual meets LDR treatment standard, < 1.5 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pyrene	LDR-nonwastewater	Pyrene	129-00-0	Determine if waste or residual meets LDR treatment standard, < 8.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pyrene	LDR-wastewater	Pyrene	129-00-0	Determine if waste or residual meets LDR treatment standard, < 8.2 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pyridine	LDR-nonwastewater	Pyridine	110-86-1	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Pyridine	LDR-wastewater	Pyridine	110-86-1	Determine if waste or residual meets LDR treatment standard, < 16 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Safrole	LDR-nonwastewater	Safrole	94-59-7	Determine if waste or residual meets LDR treatment standard, < 22 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Safrole	LDR-wastewater	Safrole	94-59-7	Determine if waste or residual meets LDR treatment standard, < 22 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Selenium	LDR-nonwastewater	Selenium	7782-49-2	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Selenium	LDR-wastewater	Selenium	7782-49-2	Determine if waste or residual meets LDR treatment standard, < 5.7 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Silver	LDR-nonwastewater	Silver	7440-22-4	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Silver	LDR-wastewater	Silver	7440-22-4	Determine if waste or residual meets LDR treatment standard, < 0.14 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Silvex (2,4,5-TP)	LDR-nonwastewater	Silvex (2,4,5-TP)	93-72-1	Determine if waste or residual meets LDR treatment standard, < 7.9 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Silvex (2,4,5-TP)	LDR-wastewater	Silvex (2,4,5-TP)	93-72-1	Determine if waste or residual meets LDR treatment standard, < 7.9 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC TCDDs (All Tetrachlorodibenzo-p-dioxins)	LDR-nonwastewater	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC TCDDs (All Tetrachlorodibenzo-p-dioxins)	LDR-wastewater	TCDDs (All Tetrachlorodibenzo-p-dioxins)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC TCDFs (All Tetrachlorodibenzofurans)	LDR-nonwastewater	TCDFs (All Tetrachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC TCDFs (All Tetrachlorodibenzofurans)	LDR-wastewater	TCDFs (All Tetrachlorodibenzofurans)	NA	Determine if waste or residual meets LDR treatment standard, < 0.001 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8280	listed = each batch**, non-listed = once per week
UHC Tetrachloroethylene	LDR-nonwastewater	Tetrachloroethylene	127-18-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

Table A3-5c - Analytical Parameters Filter Cake Residuals

Waste Code (prior to treatment)	Waste form as generated (LDR wastewater or LDR nonwastewater)	Parameter*	CAS#	Rationale	Sampling Method	Analytical Method	Frequency
UHC Tetrachloroethylene	LDR-wastewater	Tetrachloroethylene	127-18-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Thallium	LDR-nonwastewater	Thallium	7440-28-0	Determine if waste or residual meets LDR treatment standard, < 0.20 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Thallium	LDR-wastewater	Thallium	7440-28-0	Determine if waste or residual meets LDR treatment standard, < 0.20 mg/L TCLP.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 1311, 7010	listed = each batch**, non-listed = once per week
UHC Toluene	LDR-nonwastewater	Toluene	108-88-3	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Toluene	LDR-wastewater	Toluene	108-88-3	Determine if waste or residual meets LDR treatment standard, < 10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8270	listed = each batch**, non-listed = once per week
UHC Toxaphene	LDR-nonwastewater	Toxaphene	8001-35-2	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Toxaphene	LDR-wastewater	Toxaphene	8001-35-2	Determine if waste or residual meets LDR treatment standard, < 2.6 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC trans-1,2-Dichloroethylene	LDR-nonwastewater	trans-1,2-Dichloroethylene	156-60-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC trans-1,2-Dichloroethylene	LDR-wastewater	trans-1,2-Dichloroethylene	156-60-5	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC trans-1,3-Dichloropropylene	LDR-nonwastewater	trans-1,3-Dichloropropylene	10061-02-6	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC trans-1,3-Dichloropropylene	LDR-wastewater	trans-1,3-Dichloropropylene	10061-02-6	Determine if waste or residual meets LDR treatment standard, < 18 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Trichloroethylene	LDR-nonwastewater	Trichloroethylene	79-01-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Trichloroethylene	LDR-wastewater	Trichloroethylene	79-01-6	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Trichlorofluoromethane	LDR-nonwastewater	Trichlorofluoromethane	75-69-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Trichlorofluoromethane	LDR-wastewater	Trichlorofluoromethane	75-69-4	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC tris-(2,3-dibromopropyl) phosphate	LDR-nonwastewater	tris-(2,3-dibromopropyl) phosphate	126-72-7	Determine if waste or residual meets LDR treatment standard, < 0.10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC tris-(2,3-dibromopropyl) phosphate	LDR-wastewater	tris-(2,3-dibromopropyl) phosphate	126-72-7	Determine if waste or residual meets LDR treatment standard, < 0.10 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)		listed = each batch**, non-listed = once per week
UHC Vinyl chloride	LDR-nonwastewater	Vinyl chloride	75-01-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Vinyl chloride	LDR-wastewater	Vinyl chloride	75-01-4	Determine if waste or residual meets LDR treatment standard, < 6.0 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Xylenes-mixed isomers (sum of o-, m-, and p-xylene c	LDR-nonwastewater	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week
UHC Xylenes-mixed isomers (sum of o-, m-, and p-xylene c	LDR-wastewater	Xylenes-mixed isomers (sum of o-, m-, and p-xylene concentrations)	1330-20-7	Determine if waste or residual meets LDR treatment standard, < 30 mg/kg.	Containers, Treatment Tanks – trowel, trier or bucket auger. 1 composite sample per load (shipping container)	SW-846 8260	listed = each batch**, non-listed = once per week

* Filter Cake will only be tested for parameters identified in in bound waste or identified as UHC by waste stream.

** Listed filter cake may not be analyzed but it assumed to not meet treatment standards and will be shipped off-site for further treatment prior to landfill.
Footnote: Certain TC VOC/SVOC parameters may not be sampled on a weekly basis If the waste meet the parameters described in the "Filter Cake Frequency of Process Confirmation Justification" document.

Table A3-5d - Fingerprint Parameters for Acceptance

Waste Code	Parameter	Rationale	Analytical Method	Frequency - Container Transfer	Frequency - Wastewater Treatment
All Waste Codes	Color	Compare to profile to confirm waste matches the profile.	Visual	Each incoming shipment	Each incoming shipment
	Physical state	Compare to profile to confirm waste matches the profile.	Visual	Each incoming shipment	Each incoming shipment
	pH	Confirm waste has the expected characteristic category (2.0<pH>12.5) and compare to profile to confirm waste is as expected (+/- 2 standard units from the profile).	SW 846 9040C SW846 9041A SW846 9045D	Each incoming shipment	Each incoming shipment
	Consistency	Compare to profile to confirm waste matches the profile.	Visual	Each incoming shipment	Each incoming shipment
	Homogeneity	Compare individual containers to assess homogeneity.	Visual	Each incoming shipment	Each incoming shipment
	Organic layer	Identify presence of organics.	Visual	Each incoming shipment	Each incoming shipment
	Solids content	Identify presence of solids.	Visual	Each incoming shipment	Each incoming shipment
	Pumpability	Qualitatively evaluate pumpability.	Stir test	Each incoming shipment for Liquids only	Each incoming shipment
	TSS	Determine if waste is LDR-wastewater (< 1% TSS by weight) or LDR-nonwastewater.	EPA Method 160.2	Initial Shipment and re-evaluated annually	Initial Shipment and re-evaluated annually
	TOC	Determine if waste is LDR-wastewater (<1% TOC by weight) of LDR-nonwastewater and to confirm waste is <10 % TOC (Subpart BB applicability).	SW846 9060A Generator Knowledge	Initial Shipment and re-evaluated annually	Initial Shipment and re-evaluated annually
	Average VO	Determine if waste is exempt from Subpart CC (<500 ppmw).	EPA 25D Generator knowledge with analytical basis	Initial Shipment and re-evaluated annually	Initial Shipment and re-evaluated annually
	Flashpoint	Determine if waste exhibits the characteristic of ignitibility (< 140°F). Also – WAP has an alternate requirement of 90°F.	SW846 1010 Generator Knowledge ASTM D 93-79, D93-80 SW846 1020B ASTM D 3278-78	Initial Shipment and re-evaluated annually	Initial Shipment and re-evaluated annually
	Reactivity	Determine if waste exhibits the characteristic of reactivity.	CN, Sulfide analysis, Generator Knowledge	Initial Shipment and re-evaluated annually	Initial Shipment and re-evaluated annually
	Compatibility	Determine if waste will not cause adverse reaction if mixed with other wastes.	ASTM D5058A	NA	Each incoming shipment

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	**A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility** **B: *Reserved*** Placeholder for Building 4 treatment if the capability is developed at a later date. **C: Storage, Consolidation and Transfer in Container Management Facility** **D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B**
D001	A solid waste that meets *any* of the following criteria:		
	1. A liquid that has a flash point of less than 140^{o} F as determined by a Pensky-Martens closed cup tester using ASTM method D-93-70 or D-93-80;	**C**	
	2. A solid, under standard temperature and pressure, that can cause fire through friction, absorption of moisture, or spontaneous chemical changes *and* burn vigorously and persistently that it creates a hazard;	**C, D**	
	3. An ignitable compressed gas as defined by the Department of Transportation in 49 CFR 173.300; or,	**C, D**	
	4. An oxidizer as defined by the Department of Transportation in 49 CFR 173.151.	**B, C, D**	
D002	A solid waste that meets *any* of the following criteria:		
	1. An aqueous liquid that has a pH of 2 or less or 12.5 or more; or,	**A, B, C, D**	
	2. A liquid that corrodes steel at a rate of 6.35 mm or more per year as determined by the National Association of Corrosion Engineers	**A, B, C, D**	
D003	A solid waste that meets *any* of the following criteria:		
	It is a cyanide or sulfide bearing waste which, when exposed to pH conditions between 0-14 can generate toxic gases, vapors or fumes in a quantity sufficient to present a danger to human health or the environment	**B, C, D**	
	When mixed with water, it generates toxic gases vapors or fumes in quantity sufficient to present a danger to human health and the environment.	**C**	
	It reacts violently with water	**C**	
D004	Arsenic	**A, B, C, D**	
D005	Barium	**A, B, C, D**	
D006	Cadmium	**A, B, C, D**	
D007	Chromium	**A, B, C, D**	
D008	Lead	**A, B, C, D**	
D009	Mercury	**A, B, C, D**	
D010	Selenium	**A, B, C, D**	

Table A3-6 - WASTE CODES AND DISPOSITION

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D011	Silver	A, B, C, D	
D012	Endrin	A, B, C, D	
D013	Lindane	A, B, C, D	
D014	Methoxychlor	A, B, C, D	
D015	Toxaphene	A, B, C, D	
D016	2,4-D	A, B, C, D	
D017	2,4,5-TP (Silvex)	A, B, C, D	
D018	Benzene	A, B, C, D	
D019	Carbon tetrachloride	A, B, C, D	
D020	Chlordane	A, B, C, D	
D021	Chlorobenzene	A, B, C, D	
D022	Chloroform	A, B, C, D	
D023	Cresol, o-	A, B, C, D	
D024	Cresol, m-	A, B, C, D	
D025	Cresol, p-	A, B, C, D	
D026	Cresol	A, B, C, D	
D027	Dichlorobenzene, 1,4-	A, B, C, D	
D028	Dichloroethane, 1,2-	A, B, C, D	
D029	Dichloroethylene, 1,1-	A, B, C, D	
D030	Dinitrotoluene, 2,4-	A, B, C, D	
D031	Heptachlor (and its epoxide)	A, B, C, D	
D032	Hexachlorobenzene	A, B, C, D	
D033	Hexachlorobutadiene	A, B, C, D	
D034	Hexachloroethane	A, B, C, D	
D035	Methyl ethyl ketone	A, B, C, D	
D036	Nitrobenzene	A, B, C, D	
D037	Pentrachlorophenol	A, B, C, D	
D038	Pyridine	A, B, C, D	
D039	Tetrachloroethylene	A, B, C, D	
D040	Trichloroethylene	A, B, C, D	
D041	2,4,5-Trichlorophenol	A, B, C, D	
D042	2,4,6-Trichlorophenol	A, B, C, D	
D043	Vinyl chloride	A, B, C, D	
	The following spent halogenated solvents used in degreasing:		

Table A3-6 - WASTE CODES AND DISPOSITION

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F001	Tetrachloroethylene, trichloroethylene, methylene chloride, 1,1,1-trichloroethane, carbon tetrachloride, and chlorinated fluorocarbons; all spent solvent mixtures/blends used in degreasing containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those solvents listed in F002, F004, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	**B, C, D**	
F002	The following spent halogenated solvents:		
	Tetrachloroethylene, methylene chloride, trichloroethylene,1,1,1-trichloroethane, chlorobenzene, 1,1,2-trichloro-1,2,2-trifluoroethane, ortho-dichlorobenzene, trichlorofluoromethane, and 1,1,2-trichloroethane; all spent solvent mixtures/blends containing, before use, a total of ten percent or more (by volume) of one or more of the above halogenated solvents or those listed in F001, F004, or F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	**B, C, D**	
F003	The following spent non-halogenated solvents:		
	Xylene, acetone, ethyl acetate, ethyl benzene, ethyl ether, methyl isobutyl ketone, n-butyl alcohol, cyclohexanone, and methanol; all spent solvent mixtures/blends containing, before use, only the above spent non-halogenated solvents; and all spent solvent mixtures/blends containing, before use, one or more of the above non-halogenated solvents, and, a total of 10 percent or more (by volume) of one or more of those solvents listed in F001, F002, F004, and f005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	**B, C, D**	
F004	The following spent non-halogenated solvents:		
	Cresols and cresylic acid, and nitrobenzene; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, and F005; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	**B, C, D**	
F005	The following spent non-halogenated solvents:		
	Toluene, methyl ethyl ketone, carbon disulfide, isobutanol, pyridine, benzene, 2-ethoxyethanol, and 2-nitropropane; all spent solvent mixtures/blends containing, before use, a total of 10 percent or more (by volume) of one or more of the above non-halogenated solvents or those solvents listed in F001, F002, or F004; and still bottoms from the recovery of these spent solvents and spent solvent mixtures.	**B, C, D**	
	Wastewater treatment sludge from electroplating operations except from the following processes:		

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	**A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility** **B: *Reserved*** Placeholder for Building 4 treatment if the capability is developed at a later date. **C: Storage, Consolidation and Transfer in Container Management Facility** **D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B**
F006	(1) Sulfuric acid anodizing of aluminum; (2) tin plating on carbon steel; (3) zinc plating (segregated basis) on carbon steel; (4) aluminum or zinc-aluminum plating on carbon steel; (5) cleaning/stripping associated with tin, zinc and aluminum plating on carbon steel; and align="center" etching and milling of aluminum.	**A, B, C, D**	
F007	Spent cyanide plating bath solutions from electroplating operations.	**B, C, D**	
F008	Plating bath residues from the bottom of plating baths from electroplating operations where cyanides are used in the process.	**B, C, D**	
F009	Spent stripping and cleaning bath solutions from electroplating operations where cyanides are used in the process.	**B, C, D**	
F010	Quenching bath residues from oil baths from metal heat treating operations where cyanides are used in the process.	**B, C, D**	
F011	Spent cyanide solution from salt bath pot cleaning from metal heat treatment operations	**B, C, D**	
F012	Quenching waste water treatment sludge from metal heat treating operations where cyanides are used in the process.	**B, C, D**	
F019	Wastewater treatment sludge from the chemical conversion coating of aluminum except from zirconium phosphating in aluminum can washing when such phosphating is an exclusive conversion coating process.	**A, B, C, D**	
F020	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- or tetrachlorophenol, or of termediates used to produce their pesticide derivatives. (This listing does not include wastes from the production of Hexachlorophene from highly purified 2,4,5-trichlorophenol.).	**B, C, D**	
F021	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of pentachlorophenol, or of intermediates used to produce its derivatives.	**B, C, D**	
F022	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tetra-, penta-, or hexachlorobenzenes under alkaline conditions.	**B, C, D**	

Table A3-6 - WASTE CODES AND DISPOSITION

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F023	Wastes (except wastewater and spent carbon from hydrogen chloride purification) from the production of materials on equipment previously used for the production or manufacturing use (as a reactant, chemical intermediate, or component in a formulating process) of tri- and tetrachlorophenols. (This listing does not include wastes from equipment used only for the production or use of Hexachlorophene from highly purified 2,4,5-trichlorophenol.)	**B, C, D**	
F024	Process wastes, including but not limited to, distillation residues, heavy ends, tars, and reactor clean-out wastes, from the production of certain chlorinated aliphatic hydrocarbons by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. (This listing does not include wastewaters, wastewater treatment sludges, spent catalysts, and wastes listed in §261.31 or §261.32.)	**B, C, D**	
F025	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution	**B, C, D**	
F026	Condensed light ends, spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution	**B, C, D**	
F027	Discarded unused formulations containing tri-, tetra-, or pentachlorophenol or discarded unused formulations containing compounds derived from these chlorophenols. (This listing does not include formulations containing Hexachlorophene synthesized from prepurified 2,4,5-trichlorophenol as the sole component.).	**B, C, D**	
F028	Residues resulting from the incineration or thermal treatment of soil contaminated with EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027.	**B, C, D**	

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F032	Wastewaters (except those that have not come into contact with process contaminants),process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that currently use or have previously used chlorophenolic formulations (except potentially cross-contaminated wastes that have had the F032 waste code deleted in accordance with § 261.35 of this chapter or potentially cross-contaminated wastes that are otherwise currently regulated as hazardous wastes (i.e., F034 or F035), and where the generator does not resume or initiate use of chlorophenolic formulations). This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	**B, C, D**	
F034	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use creosote formulations. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	**B, C, D**	
F035	Wastewaters (except those that have not come into contact with process contaminants), process residuals, preservative drippage, and spent formulations from wood preserving processes generated at plants that use inorganic preservatives containing arsenic or chromium. This listing does not include K001 bottom sediment sludge from the treatment of wastewater from wood preserving processes that use creosote and/or pentachlorophenol.	**B, C, D**	
F037	Petroleum refinery primary oil/water/solids separation sludge--Any sludge generated from the gravitational separation of oil/water/solids during the storage or treatment of process wastewaters and oily cooling wastewaters from petroleum refineries. Such sludge include, but are not limited to, those generated in: oil/ water/solids separators; tanks and impoundments; ditches and other conveyances; sumps; and stormwater units receiving dry weather flow. Sludge generated in stormwater units that do not receive dry weather flow, sludge generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludge generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludge generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and K051 wastes are not included in this listing.	**B, C, D**	

Table A3-6 - WASTE CODES AND DISPOSITION

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F038	Petroleum refinery secondary (emulsified) oil/water/solids separation sludge--Any sludge and/or float generated from the physical and/or chemical separation of oil/water/solids in process wastewaters and oily cooling wastewaters from petroleum refineries. Such wastes include, but are not limited to, all sludge and floats generated in: induced air flotation (IAF) units, tanks and impoundments, and all sludge generated in DAF units. sludge generated in stormwater units that do not receive dry weather flow, sludge generated from non-contact once-through cooling waters segregated for treatment from other process or oily cooling waters, sludge and floats generated in aggressive biological treatment units as defined in § 261.31(b)(2) (including sludge and floats generated in one or more additional units after wastewaters have been treated in aggressive biological treatment units) and f037, K048, and K051 wastes are not included in this listing.	**B, C, D**	
F039	Leachate (liquids that have percolated through land disposed wastes) resulting from the disposal of more than one restricted waste classified as hazardous under subpart D of this part. (Leachate resulting from the disposal of one or more of the following EPA Hazardous Wastes and no other Hazardous Wastes retains its EPA Hazardous Waste Number(s): F020, F021, F022, F026, F027, and/or F028.)	**A, B, C, D**	
P001	Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-2-phenylbutyl)-2H-1-, & salts, when present at concentrations greater than 0.3%	**B, C, D**	
P001	Warfarin, & salts, when present at concentrations greater than 0.3%	**B, C, D**	
P002	Acetamide, N-(aminothioxomethyl)-	**B, C, D**	
P002	Acetyl-2-thiourea, 1-	**B, C, D**	
P003	Acrolein	**B, C, D**	
P003	Propenal	**B, C, D**	
P004	Aldrin	**B, C, D**	
P004	1,4,5,8-Dimethanonaphthalene,1,2,3,4,10,10-hexa-chloro-1,4,4a,5,8,8a,-hexahydro-,(1alpha,4alpha,4abeta,5alpha,8alpha,8abeta)-	**B, C, D**	
P005	Allyl alcohol	**B, C, D**	
P005	Propen-1-ol	**B, C, D**	
P006	Aluminum phosphide	**B, C, D**	
P007	Aminomethyl)-3-isoxazolol, 5-(	**B, C, D**	
P007	3(2H)-Isoxazolone, 5-(aminomethyl)-	**B, C, D**	
P008	Aminopyridine, 4-	**B, C, D**	
P008	Pyridinamine	**B, C, D**	
P009	Ammonium picrate	**B, C, D**	
P009	Phenol, 2,4,6-trinitro-, ammonium salt	**B, C, D**	

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P010	Arsenic acid H3AsO4	B, C, D	
P011	Arsenic oxide As2O5	B, C, D	
P011	Arsenic pentoxide	B, C, D	
P012	Arsenic oxide As2O3	B, C, D	
P012	Arsenic trioxide	B, C, D	
P013	Barium cyanide	B, C, D	
P014	Benzenethiol	B, C, D	
P014	Thiophenol	B, C, D	
P015	Beryllium powder	B, C, D	
P016	Dichloromethyl ether	B, C, D	
P016	Methane, oxybis[chloro-	B, C, D	
P017	Bromoacetone	B, C, D	
P017	Propanone, 1-bromo-	B, C, D	
P018	Brucine	B, C, D	
P018	Strychnidin-10-one, 2,3-dimethoxy-	B, C, D	
P020	Dinoseb	B, C, D	
P020	Phenol, 2-(1-methylpropyl)-4,6-dinitro-	B, C, D	
P021	Calcium cyanide	B, C, D	
P021	Calcium cyanide Ca(CN)	B, C, D	
P022	Carbon disulfide	B, C, D	
P023	Acetaldehyde, chloro-	B, C, D	
P023	Chloroacetaldehyde	B, C, D	
P024	Benzenamine, 4-chloro-	B, C, D	
P024	p-Chloroaniline	B, C, D	
P026	Chlorophenyl)thiourea, 1-(o-	B, C, D	
P026	Thiourea, (2-chlorophenyl)-1	B, C, D	
P027	Chloropropionitrile, 3-	B, C, D	
P027	Propanenitrile, 3-chloro-	B, C, D	
P028	Benzene, (chloromethyl)-	B, C, D	
P028	Benzyl chloride	B, C, D	
P029	Copper cyanide	B, C, D	
P029	Copper cyanide Cu(CN)	B, C, D	
P030	Cyanides (soluble cyanide salts), not otherwise specified	B, C, D	
P031	Cyanogen	B, C, D	
P031	Ethanedinitrile	B, C, D	
P033	Cyanogen chloride	B, C, D	

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P033	Cyanogen chloride (CN)Cl	**B, C, D**	
P034	Cyclohexyl-4,6-dinitrophenol, 2-	**B, C, D**	
P034	Phenol, 2-cyclohexyl-4,6-dinitro-	**B, C, D**	
P036	Arsonous dichloride, phenyl-	**B, C, D**	
P036	Dichlorophenylarsine	**B, C, D**	
P037	Dieldrin	**B, C, D**	
P037	2,7:3,6-Dimethanonaphth[2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a, 7,7a-octahydro-,(1aalpha,2beta,2aalpha,3beta,6beta,6aalpha,7beta,7aalpha)-	**B, C, D**	
P038	Arsine, diethyl-	**B, C, D**	
P038	Diethylarsine	**B, C, D**	
P039	Disulfoton	**B, C, D**	
P039	Phosphorodithioic acid, O,O-diethyl S-[2-(ethylthio)ethyl] ester	**B, C, D**	
P040	Diethyl O-pyrazinyl phosphorothioate, O,O-	**B, C, D**	
P040	Phosphorothioic acid, O,O-diethyl O-pyrazinyl ester	**B, C, D**	
P041	Diethyl-p-nitrophenyl phosphate	**B, C, D**	
P041	Phosphoric acid, diethyl4-nitrophenyl ester	**B, C, D**	
P042	Benzenediol, 4-[1-hydroxy-2-(methylamino)ethyl]-, 1,2-	**B, C, D**	
P042	Epinephrine	**B, C, D**	
P043	Diisopropylfluorophosphate (DFP)	**B, C, D**	
P043	Phosphorofluoridic acid, bis(1-methylethyl) ester	**B, C, D**	
P044	Dimethoate	**B, C, D**	
P044	Phosphorodithioic acid, O,O-dimethyl S-[2-(methylamino)-2-oxoethyl] ester	**B, C, D**	
P045	Butanone, 3,3-dimethyl-1-(methylthio)-, O-4-[methylamino)carbonyl] oxime	**B, C, D**	
P045	Thiofanox	**B, C, D**	
P046	Benzeneethanamine, alpha,alpha-dimethyl-	**B, C, D**	
P046	alpha,alpha-Dimethylphenethylamine	**B, C, D**	
P047	4,6-Dinitro-o-cresol, & salts	**B, C, D**	
P047	Phenol, 2-methyl-4,6-dinitro-, & salts	**B, C, D**	
P048	2,4-Dinitrophenol	**B, C, D**	
P048	Phenol, 2,4-dinitro-	**B, C, D**	
P049	Dithiobiuret	**B, C, D**	
P049	Thioimidodicarbonic diamide	**B, C, D**	
P050	Endosulfan	**B, C, D**	

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P050	Methano-2,4,3-benzodioxathiepin, 6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexa hydro-, 3-oxide	B, C, D	
P051	2,7:3,6-Dimethanonaphth [2,3-b]oxirene, 3,4,5,6,9,9-hexachloro-1a,2,2a,3,6,6a,7,7a-octahydro-, (1aalpha,2beta,2abeta,3alpha,6alpha,6abeta,7beta,7aalpha)-, & metabolites	B, C, D	
P051	Endrin	B, C, D	
P051	Endrin, & metabolites	B, C, D	
P054	Aziridine	B, C, D	
P054	Ethyleneimine	B, C, D	
P056	Fluorine	B, C, D	
P057	Acetamide, 2-fluoro-	B, C, D	
P057	Fluoroacetamide	B, C, D	
P058	Acetic acid, fluoro-, sodium salt	B, C, D	
P058	Fluoroacetic acid, sodium salt	B, C, D	
P059	Heptachlor	B, C, D	
P059	Methano-1H-indene, 1,4,5,6,7,8,8-heptachloro-3a,4,7,7a-tetrahydro-	B, C, D	
P060	1,4,5,8-Dimethanonaphthalene, 1,2,3,4,10,10-hexachloro-1,4,4a,5,8,8a-hexahydro-,(1alpha,4alpha,4abeta,5beta,8beta,8abeta)-	B, C, D	
P060	Isodrin	B, C, D	
P062	Hexaethyl tetraphosphate	B, C, D	
P062	Tetraphosphoric acid, hexaethyl ester	B, C, D	
P063	Hydrocyanic acid	B, C, D	
P063	Hydrogen cyanide	B, C, D	
P064	Methane, isocyanato-	B, C, D	
P064	Methyl isocyanate	B, C, D	
P065	Fulminic acid, mercury(2+) salt	B, C, D	
P065	Mercury fulminate	B, C, D	
P066	Ethanimidothioic acid, N- [[(methylamino)carbonyl]oxy]-, methyl ester	B, C, D	
P066	Methomyl	B, C, D	
P067	Aziridine, 2-methyl-	B, C, D	
P067	Propylenimine	B, C, D	
P068	Hydrazine, methyl-	B, C, D	
P068	Methyl hydrazine	B, C, D	
P069	Methyllactonitrile	B, C, D	
P069	Propanenitrile, 2-hydroxy-2-methyl-	B, C, D	
P070	Aldicarb	B, C, D	

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P070	Propanal, 2-methyl-2-(methylthio)-, O-[(methylamino)carbonyl]oxime	B, C, D	
P071	Methyl parathion	B, C, D	
P071	Phosphorothioic acid, O,O,-dimethyl O-(4-nitrophenyl) ester	B, C, D	
P072	alpha-Naphthylthiourea	B, C, D	
P072	Thiourea, 1-naphthalenyl-	B, C, D	
P073	Nickel carbonyl	B, C, D	
P073	Nickel carbonyl Ni(CO)4	B, C, D	
P074	Nickel cyanide	B, C, D	
P074	Nickel cynaide Ni(CN)2	B, C, D	
P075	Nicotine, & salts	B, C, D	
P075	Pyridine, 3-(1-methyl-2-pyrrolidinyl)-, (S)-, & salts 5	B, C, D	
P076	Nitric oxide	B, C, D	
P076	Nitrogen oxide NO	B, C, D	
P077	Benzenamine, 4-nitro-	B, C, D	
P077	p-Nitroaniline	B, C, D	
P078	Nitrogen dioxide	B, C, D	
P078	Nitrogen oxide NO2	B, C, D	
P081	Nitroglycerine	B, C, D	
P081	Propanetriol, trinitrate	B, C, D	
P082	Methanamine, N-methyl-N-nitroso-	B, C, D	
P082	N-Nitrosodimethylamine	B, C, D	
P084	N-Nitrosomethylvinylamine	B, C, D	
P084	Vinylamine, N-methyl-N-nitroso-	B, C, D	
P085	Diphosphoramide, octamethyl-	B, C, D	
P085	Octamethylpyrophosphoramide	B, C, D	
P087	Osmium oxide OsO4	B, C, D	
P087	Osmium tetroxide	B, C, D	
P088	Endothall	B, C, D	
P088	Oxabicyclo[2.2.1]heptane-2, 3-dicarboxylic acid	B, C, D	
P089	Parathion	B, C, D	
P089	Phosphorothioic acid, O,O-diethyl O-(4-nitrophenyl) ester	B, C, D	
P092	Mercury, (acetato-O)phenyl-	B, C, D	
P092	Phenylmercury acetate	B, C, D	
P093	Phenylthiourea	B, C, D	
P093	Thiourea, phenyl-	B, C, D	
P094	Phorate	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
P094	Phosphorodithioic acid, O,O-diethyl S-[(ethylthio)methyl] ester	B, C, D	
P095	Carbonic dichloride	B, C, D	
P095	Phosgene	B, C, D	
P096	Hydrogen phosphide	B, C, D	
P096	Phosphine	B, C, D	
P097	Famphur	B, C, D	
P097	Phosphorothioic acid, O-[4-[(dimethylamino)sulfonyl]phenyl] O,O-dimethyl ester	B, C, D	
P098	Potassium cyanide	B, C, D	
P098	Potassium cyanide KCN	B, C, D	
P099	Argentate(1-), bis(cyano-C)-, potassium	B, C, D	
P099	Potassium silver cyanide	B, C, D	
P101	Ethyl cyanide	B, C, D	
P101	Propanenitrile	B, C, D	
P102	Propargyl alcohol	B, C, D	
P102	Propyn-1-ol	B, C, D	
P103	Selenourea	B, C, D	
P104	Silver cyanide	B, C, D	
P104	Silver cyanide Ag(CN)	B, C, D	
P105	Sodium azide	B, C, D	
P106	Sodium cyanide	B, C, D	
P106	Sodium cyanide Na(CN)	B, C, D	
P108	Strychnidin-10-one, & salts	B, C, D	
P108	Strychnine, & salts	B, C, D	
P109	Tetraethyldithiopyrophosphate	B, C, D	
P109	Thiodiphosphoric acid, tetraethyl ester	B, C, D	
P110	Plumbane, tetraethyl-	B, C, D	
P110	Tetraethyl lead	B, C, D	
P111	Diphosphoric acid, tetraethyl ester	B, C, D	
P111	Tetraethyl pyrophosphate	B, C, D	
P112	Methane, tetranitro-	B, C, D	
P112	Tetranitromethane	B, C, D	
P113	Thallic oxide	B, C, D	
P113	Thallium oxide Tl2O3	B, C, D	
P114	Selenious acid, dithallium(1+) salt	B, C, D	
P114	Thallium(I) selenite	B, C, D	
P115	Sulfuric acid, dithallium(1+)salt	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

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P115	Thallium(I) sulfate	B, C, D	
P116	Hydrazinecarbothioamide	B, C, D	
P116	Thiosemicarbazide	B, C, D	
P118	Methanethiol, trichloro-	B, C, D	
P118	Trichloromethanethiol	B, C, D	
P119	Ammonium vanadate	B, C, D	
P119	Vanadic acid, ammonium salt	B, C, D	
P120	Vanadium oxide V2O5	B, C, D	
P120	Vanadium pentoxide	B, C, D	
P121	Zinc cyanide	B, C, D	
P121	Zinc cyanide Zn(CN)2	B, C, D	
P122	Zinc phosphide Zn3P2, when present at concentrations greater than 10%	B, C, D	
P123	Toxaphene	B, C, D	
P127	Benzofuranol, 2,3-dihydro-2,2-dimethyl-,-2-methylcarbamate	B, C, D	
P127	Carbofuran.	B, C, D	
P128	Mexacarbate	B, C, D	
P128	Phenol, 4-(dimethylamino)-3,5-dimethyl-, methylcarbamate (ester)	B, C, D	
P185	1,3-Dithiolane-2-carboxaldehyde, 2,4-dimethyl-, O-[(methylamino)-carbonyl]oxime	B, C, D	
P185	Tirpate	B, C, D	
P188	Benzoic acid, 2-hydroxy-, compd. with (3aS-cis)-1,2,3,3a,8,8a-hexahydro-1,3a,8-tr imethylpyrrolo[2,3-b]indol-5-yl methylcarbamate ester	B, C, D	
P188	Physostigmine salicylate	B, C, D	
P189	Carbamic acid, [(dibutylamino)- thio]methyl-, 2,3,-dihydro-2,2-dimethyl- 7-benzofuranyl ester	B, C, D	
P189	Carbosulfan	B, C, D	
P190	Carbamic acid, methyl-, 3-methylphenyl ester	B, C, D	
P190	Metolcarb	B, C, D	
P191	Carbamic acid, dimethyl-, 1-[(dimethyl-amino)carbonyl]-5-methyl-1H- pyrazol-3-yl ester	B, C, D	
P191	Dimetilan	B, C, D	
P192	Carbamic acid, dimethyl-, 3-methyl-1- (1-methylethyl)-1H-pyrazol-5-yl ester	B, C, D	
P192	Isolan	B, C, D	
P194	Ethanimidothioc acid, 2-(dimethylamino)-N-0-[[(methylamino) carbonyl]oxy]-2-oxo-, methyl ester	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
P194	Oxamyl	B, C, D	
P196	Manganese, bis(dimethylcarbamodithioato-S,S')-,	B, C, D	
P196	Manganese dimethyldithiocarbamate	B, C, D	
P197	Formparanate	B, C, D	
P197	Methanimidamide, N,N-dimethyl-N'-[2-methyl-4-[[(methylamino)carbonyl]oxy]phenyl]-	B, C, D	
P198	Formetanate hydrochloride	B, C, D	
P198	Methanimidamide, N,N-dimethyl-N'-[3-[[(methylamino)-carbonyl]oxy]phenyl]-, monohydrochloride	B, C, D	
P199	Methiocarb	B, C, D	
P199	Phenol, (3,5-dimethyl-4-(methylthio)-, methylcarbamate	B, C, D	
P201	Phenol, 3-methyl-5-(1-methylethyl)-, methyl carbamate	B, C, D	
P201	Promecarb	B, C, D	
P202	Cumenyl methylcarbamate, m-	B, C, D	
P202	Isopropylphenyl N-methylcarbamate	B, C, D	
P202	Phenol, 3-(1-methylethyl)-, methyl carbamate	B, C, D	
P203	Aldicarb sulfone	B, C, D	
P203	Propanal, 2-methyl-2-(methyl-sulfonyl)-, O-[(methylamino)carbonyl] oxime	B, C, D	
P204	Physostigmine	B, C, D	
P204	Pyrrolo[2,3-b]indol-5-ol, 1,2,3,3a,8,8a-hexahydro-1,3a,8-trimethyl-, methylcarbamate (ester), (3aS- cis)-	B, C, D	
P205	Zinc, bis(dimethylcarbamodithioato-S,S')-,	B, C, D	
P205	Ziram	B, C, D	
U001	Acetaldehyde	B, C, D	
U001	Ethanal	B, C, D	
U002	Acetone	B, C, D	
U002	2-Propanone	B, C, D	
U003	Acetonitrile	B, C, D	
U004	Acetophenone	B, C, D	
U004	Ethanone, 1-phenyl-	B, C, D	
U005	Acetamide, N-9H-fluoren-2-yl-	B, C, D	
U005	Acetylaminofluorene	B, C, D	
U006	Acetyl chloride	B, C, D	
U007	Acrylamide	B, C, D	
U007	2-Propenamide	B, C, D	
U008	Acrylic acid	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

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U008	2-Propenoic acid	B, C, D	
U009	Acrylonitrile	B, C, D	
U009	2-Propenenitrile	B, C, D	
U010	Azirino[2',3':3,4]pyrrolo[1,2-a]indole-4,7-dione,6-amino-8-[[(amin ocarbonyl)oxy] methyl]-1,1a,2,8,8a,8b-hexahydro-8a-methoxy-5-methyl-, [1aS-(1aalpha, 8beta,8aalpha,8balpha)]-	B, C, D	
U010	Mitomycin C	B, C, D	
U011	Amitrole	B, C, D	
U011	1H-1,2,4-Triazol-3-amine	B, C, D	
U012	Aniline	B, C, D	
U012	Benzenamine	B, C, D	
U014	Auramine	B, C, D	
U014	Benzenamine, 4,4'-carbonimidoyl bis[N,N-dimethyl-	B, C, D	
U015	Azaserine	B, C, D	
U015	L-Serine, diazoacetate (ester)	B, C, D	
U016	Benz[c]acridine	B, C, D	
U017	Benzal chloride	B, C, D	
U017	Benzene, (dichloromethyl)-	B, C, D	
U018	Benz[a]anthracene	B, C, D	
U019	Benzene	B, C, D	
U020	Benzenesulfonic acid chloride	B, C, D	
U020	Benzenesulfonyl chloride	B, C, D	
U021	Benzidine	B, C, D	
U021	[1,1'-Biphenyl]-4,4'-diamine	B, C, D	
U022	Benzo[a]pyrene	B, C, D	
U023	Benzene, (trichloromethyl)-	B, C, D	
U023	Benzotrichloride	B, C, D	
U024	Dichloromethoxy ethane	B, C, D	
U024	Ethane, 1,1'-[methylenebis (oxy)]bis[2-chloro-	B, C, D	
U025	Dichloroethyl ether	B, C, D	
U025	Ethane, 1,1'-oxybis[2-chloro-	B, C, D	
U026	Chlornaphazin	B, C, D	
U026	Naphthalenamine, N,N'-bis(2-chloroethyl)-	B, C, D	
U027	Dichloroisopropyl ether	B, C, D	
U027	Propane, 2,2'-oxybis[2-chloro-	B, C, D	
U028	1,2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester	B, C, D	
U028	Diethylhexyl phthalate	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	**A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility** **B: *Reserved*** Placeholder for Building 4 treatment if the capability is developed at a later date. **C: Storage, Consolidation and Transfer in Container Management Facility** **D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B**
U029	Methane, bromo-	**B, C, D**	
U029	Methyl bromide	**B, C, D**	
U030	Benzene, 1-bromo-4-phenoxy-	**B, C, D**	
U030	4-Bromophenyl phenyl ether	**B, C, D**	
U031	1-Butanol	**B, C, D**	
U031	n-Butyl alcohol	**B, C, D**	
U032	Calcium chromate	**B, C, D**	
U032	Chromic acid H2CrO4, calcium salt	**B, C, D**	
U033	Carbonic difluoride	**B, C, D**	
U033	Carbon oxyfluoride	**B, C, D**	
U034	Acetaldehyde, trichloro-	**B, C, D**	
U034	Chloral	**B, C, D**	
U035	Benzenebutanoic acid, 4-[bis(2-chloroethyl)amino]-	**B, C, D**	
U035	Chlorambucil	**B, C, D**	
U036	Chlordane, alpha & gamma isomers	**B, C, D**	
U036	4,7-Methano-1H-indene, 1,2,4,5,6,7,8,8-octachloro-2,3,3a,4,7,7a-hexahydro-	**B, C, D**	
U037	Benzene, chloro-	**B, C, D**	
U037	Chlorobenzene	**B, C, D**	
U038	Benzeneacetic acid, 4-chloro-alpha-(4-chlorophenyl)-alpha-hydroxy-, ethyl ester	**B, C, D**	
U038	Chlorobenzilate	**B, C, D**	
U039	p-Chloro-m-cresol	**B, C, D**	
U039	Phenol, 4-chloro-3-methyl-	**B, C, D**	
U041	Epichlorohydrin	**B, C, D**	
U041	Oxirane, (chloromethyl)-	**B, C, D**	
U042	2-Chloroethyl vinyl ether	**B, C, D**	
U042	Ethene, (2-chloroethoxy)-	**B, C, D**	
U043	Ethene, chloro-	**B, C, D**	
U043	Vinyl chloride	**B, C, D**	
U044	Chloroform	**B, C, D**	
U044	Methane, trichloro-	**B, C, D**	
U045	Methane, chloro-	**B, C, D**	
U045	Methyl chloride	**B, C, D**	
U046	Chloromethyl methyl ether	**B, C, D**	
U046	Methane, chloromethoxy-	**B, C, D**	
U047	beta-Chloronaphthalene	**B, C, D**	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
U047	Naphthalene, 2-chloro-	B, C, D	
U048	o-Chlorophenol	B, C, D	
U048	Phenol, 2-chloro-	B, C, D	
U049	Benzenamine, 4-chloro-2-methyl-, hydrochloride	B, C, D	
U049	4-Chloro-o-toluidine, hydrochloride	B, C, D	
U050	Chrysene	B, C, D	
U051	Creosote	B, C, D	
U052	Cresol (Cresylic acid)	B, C, D	
U052	Phenol, methyl-	B, C, D	
U053	2-Butenal	B, C, D	
U053	Crotonaldehyde	B, C, D	
U055	Benzene, (1-methylethyl)-	B, C, D	
U055	Cumene	B, C, D	
U056	Benzene, hexahydro-	B, C, D	
U056	Cyclohexane	B, C, D	
U057	Cyclohexanone	B, C, D	
U058	Cyclophosphamide	B, C, D	
U058	2H-1,3,2-Oxazaphosphorin-2-amine, N,N-bis(2-chloroethyl) tetrahydro-, 2-oxide	B, C, D	
U059	Daunomycin	B, C, D	
U059	5,12-Naphthacenedione, 8-acetyl-10-[(3-amino-2,3,6-3 trideoxy)-alpha-L-lyxo-hexopyranosyl)oxy]-7,8,9,10-tetrahydro-6,8,11-trihydroxy-1-methoxy-, (8S-cis)-	B, C, D	
U060	Benzene, 1,1'-(2,2-dichloroethylidene)bis[4-chloro-	B, C, D	
U060	DDD	B, C, D	
U061	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-chloro-	B, C, D	
U061	DDT	B, C, D	
U062	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3- dichloro-2-propenyl) ester	B, C, D	
U062	Diallate	B, C, D	
U063	Dibenz[a,h]anthracene	B, C, D	
U064	Benzo[rst]pentaphene	B, C, D	
U064	Dibenzo[a,i]pyrene	B, C, D	
U066	1,2-Dibromo-3-chloropropane	B, C, D	
U066	Propane, 1,2-dibromo-3-chloro-	B, C, D	
U067	Ethane, 1,2-dibromo-	B, C, D	
U067	Ethylene dibromide	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

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U068	Methane, dibromo-	B, C, D	
U068	Methylene bromide	B, C, D	
U069	1,2-Benzenedicarboxylic acid, dibutyl ester	B, C, D	
U069	Dibutyl phthalate	B, C, D	
U070	Benzene, 1,2-dichloro-	B, C, D	
U070	o-Dichlorobenzene	B, C, D	
U071	Benzene, 1,3-dichloro-	B, C, D	
U071	m-Dichlorobenzene	B, C, D	
U072	Benzene, 1,4-dichloro-	B, C, D	
U072	p-Dichlorobenzene	B, C, D	
U073	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dichloro-	B, C, D	
U073	3,3'-Dichlorobenzidine	B, C, D	
U074	2-Butene, 1,4-dichloro-	B, C, D	
U074	1,4-Dichloro-2-butene	B, C, D	
U075	Dichlorodifluoromethane	B, C, D	
U075	Methane, dichlorodifluoro-	B, C, D	
U076	Ethane, 1,1-dichloro-	B, C, D	
U076	Ethylidene dichloride	B, C, D	
U077	Ethane, 1,2-dichloro-	B, C, D	
U077	Ethylene dichloride	B, C, D	
U078	1,1-Dichloroethylene	B, C, D	
U078	Ethene, 1,1-dichloro-	B, C, D	
U079	1,2-Dichloroethylene	B, C, D	
U079	Ethene, 1,2-dichloro-	B, C, D	
U080	Methane, dichloro-	B, C, D	
U080	Methylene chloride	B, C, D	
U081	2,4-Dichlorophenol	B, C, D	
U081	Phenol, 2,4-dichloro-	B, C, D	
U082	2,6-Dichlorophenol	B, C, D	
U082	Phenol, 2,6-dichloro-	B, C, D	
U083	Propane, 1,2-dichloro-	B, C, D	
U083	Propylene dichloride	B, C, D	
U084	1,3-Dichloropropene	B, C, D	
U084	1-Propene, 1,3-dichloro-	B, C, D	
U085	2,2'-Bioxirane	B, C, D	
U085	1,2:3,4-Diepoxybutane	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

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U086	N,N'-Diethylhydrazine	B, C, D	
U086	Hydrazine, 1,2-diethyl-	B, C, D	
U087	O,O-Diethyl S-methyl dithiophosphate	B, C, D	
U087	Phosphorodithioic acid, O,O-diethyl S-methyl ester	B, C, D	
U088	1,2-Benzenedicarboxylic acid, diethyl ester	B, C, D	
U088	Diethyl phthalate	B, C, D	
U089	Diethylstilbesterol	B, C, D	
U089	Phenol, 4,4'-(1,2-diethyl-1,2-ethenediyl)bis-	B, C, D	
U090	1,3-Benzodioxole, 5-propyl-	B, C, D	
U090	Dihydrosafrole	B, C, D	
U091	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethoxy-	B, C, D	
U091	3,3'-Dimethoxybenzidine	B, C, D	
U092	Dimethylamine	B, C, D	
U092	Methanamine, N-methyl-	B, C, D	
U093	Benzenamine, N,N-dimethyl-4-(phenylazo)-	B, C, D	
U093	p-Dimethylaminoazobenzene	B, C, D	
U094	Benz[a]anthracene, 7,12-dimethyl-	B, C, D	
U094	7,12-Dimethylbenz[a]anthracene	B, C, D	
U095	[1,1'-Biphenyl]-4,4'-diamine, 3,3'-dimethyl-	B, C, D	
U095	3,3'-Dimethylbenzidine	B, C, D	
U096	alpha,alpha-Dimethylbenzylhydroperoxide	B, C, D	
U096	Hydroperoxide, 1-methyl-1-phenylethyl-	B, C, D	
U097	Carbamic chloride, dimethyl-	B, C, D	
U097	Dimethylcarbamoyl chloride	B, C, D	
U098	1,1-Dimethylhydrazine	B, C, D	
U098	Hydrazine, 1,1-dimethyl-	B, C, D	
U099	1,2-Dimethylhydrazine	B, C, D	
U099	Hydrazine, 1,2-dimethyl-	B, C, D	
U101	2,4-Dimethylphenol	B, C, D	
U101	Phenol, 2,4-dimethyl-	B, C, D	
U102	1,2-Benzenedicarboxylic acid, dimethyl ester	B, C, D	
U102	Dimethyl phthalate	B, C, D	
U103	Dimethyl sulfate	B, C, D	
U103	Sulfuric acid, dimethyl ester	B, C, D	
U105	Benzene, 1-methyl-2,4-dinitro-	B, C, D	
U105	2,4-Dinitrotoluene	B, C, D	

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Waste Code	Description	Disposition	**A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility** **B: *Reserved*** Placeholder for Building 4 treatment if the capability is developed at a later date. **C: Storage, Consolidation and Transfer in Container Management Facility** **D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B**
U106	Benzene, 2-methyl-1,3-dinitro-	**B, C, D**	
U106	2,6-Dinitrotoluene	**B, C, D**	
U107	1,2-Benzenedicarboxylic acid, dioctyl ester	**B, C, D**	
U107	Di-n-octyl phthalate	**B, C, D**	
U108	1,4-Diethyleneoxide	**B, C, D**	
U108	1,4-Dioxane	**B, C, D**	
U109	1,2-Diphenylhydrazine	**B, C, D**	
U109	Hydrazine, 1,2-diphenyl-	**B, C, D**	
U110	Dipropylamine	**B, C, D**	
U110	1-Propanamine, N-propyl-	**B, C, D**	
U111	Di-n-propylnitrosamine	**B, C, D**	
U111	1-Propanamine, N-nitroso-N-propyl-	**B, C, D**	
U112	Acetic acid ethyl ester	**B, C, D**	
U112	Ethyl acetate	**B, C, D**	
U113	Ethyl acrylate	**B, C, D**	
U113	2-Propenoic acid, ethyl ester	**B, C, D**	
U114	Carbamodithioic acid, 1,2-ethanediylbis-, salts & esters	**B, C, D**	
U114	Ethylenebisdithiocarbamic acid, salts & esters	**B, C, D**	
U115	Ethylene oxide	**B, C, D**	
U115	Oxirane	**B, C, D**	
U116	Ethylenethiourea	**B, C, D**	
U116	2-Imidazolidinethione	**B, C, D**	
U117	Ethane, 1,1'-oxybis-(I)	**B, C, D**	
U117	Ethyl ether	**B, C, D**	
U118	Ethyl methacrylate	**B, C, D**	
U118	2-Propenoic acid, 2-methyl-, ethyl ester	**B, C, D**	
U119	Ethyl methanesulfonate	**B, C, D**	
U119	Methanesulfonic acid, ethyl ester	**B, C, D**	
U121	Methane, trichlorofluoro-	**B, C, D**	
U121	Trichloromonofluoromethane	**B, C, D**	
U122	Formaldehyde	**B, C, D**	
U123	Formic acid	**B, C, D**	
U124	Furan	**B, C, D**	
U124	Furfuran	**B, C, D**	
U125	Furancarboxaldehyde	**B, C, D**	
U125	Furfural	**B, C, D**	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	**A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility** **B: *Reserved*** Placeholder for Building 4 treatment if the capability is developed at a later date. **C: Storage, Consolidation and Transfer in Container Management Facility** **D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B**
U126	Fluoranthene	**B, C, D**	
U126	Glycidylaldehyde	**B, C, D**	
U126	Oxiranecarboxyaldehyde	**B, C, D**	
U127	Benzene, hexachloro-	**B, C, D**	
U127	Hexachlorobenzene	**B, C, D**	
U128	1,3-Butadiene, 1,1,2,3,4,4-hexachloro-	**B, C, D**	
U128	Hexachlorobutadiene	**B, C, D**	
U129	Cyclohexane, 1,2,3,4,5,6-hexachloro-, (1alpha,2alpha,3beta,4alpha,5alpha,6beta)-	**B, C, D**	
U129	Lindane	**B, C, D**	
U130	1,3-Cyclopentadiene, 1,2,3,4,5,5-hexachloro-	**B, C, D**	
U130	Hexachlorocyclopentadiene	**B, C, D**	
U131	Ethane, hexachloro-	**B, C, D**	
U131	Hexachloroethane	**B, C, D**	
U132	Hexachlorophene	**B, C, D**	
U132	Phenol, 2,2'-methylenebis[3,4,6-trichloro-	**B, C, D**	
U133	Hydrazine	**B, C, D**	
U134	Hydrofluoric acid	**A, B, C, D**	
U134	Hydrogen fluoride	**A, B, C, D**	
U135	Hydrogen sulfide	**B, C, D**	
U135	Hydrogen sulfide H2S	**B, C, D**	
U136	Arsinic acid, dimethyl-	**B, C, D**	
U136	Cacodylic acid	**B, C, D**	
U137	Indeno[1,2,3-cd]pyrene	**B, C, D**	
U138	Methane, iodo-	**B, C, D**	
U138	Methyl iodide	**B, C, D**	
U140	Isobutyl alcohol	**B, C, D**	
U140	1-Propanol, 2-methyl-	**B, C, D**	
U141	1,3-Benzodioxole, 5-(1-propenyl)-	**B, C, D**	
U141	Isosafrole	**B, C, D**	
U142	Kepone	**B, C, D**	
U142	1,3,4-Metheno-2H-cyclobuta[cd]pentalen-2-one,1,1a,3,3a,4,5,5,5a, 5b,6-decachlorooctah ydro-	**B, C, D**	
U143	Butenoic acid, 2-methyl-, 7-[[2,3-dihydroxy-2-(1-methoxyethyl)-3-methyl-1-oxobutoxy]methyl]-2,3,5,7a-tetrahydro-1H-pyrrolizin-1- yl ester, [1S-[1alpha(Z),7(2S*,3R*),7aalpha]]-	**B, C, D**	
U143	Lasiocarpine	**B, C, D**	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
U144	Acetic acid, lead(2+) salt	B, C, D	
U144	Lead acetate	B, C, D	
U145	Lead phosphate	B, C, D	
U145	Phosphoric acid, lead(2+) salt (2:3)	B, C, D	
U146	Lead, bis(acetato-O)tetrahydroxytri-	B, C, D	
U146	Lead subacetate	B, C, D	
U147	2,5-Furandione	B, C, D	
U147	Maleic anhydride	B, C, D	
U148	Maleic hydrazide	B, C, D	
U148	3,6-Pyridazinedione, 1,2-dihydro-	B, C, D	
U149	Malononitrile	B, C, D	
U149	Propanedinitrile	B, C, D	
U150	Melphalan	B, C, D	
U150	L-Phenylalanine, 4-[bis(2-chloroethyl)amino]-	B, C, D	
U151	Mercury	B, C, D	
U152	Methacrylonitril	B, C, D	
U152	2-Propenenitrile, 2-methyl-	B, C, D	
U153	Methanethiol	B, C, D	
U153	Thiomethanol	B, C, D	
U154	Methanol	B, C, D	
U154	Methyl alcohol	B, C, D	
U155	1,2-Ethanediamine, N,N-dimethyl-N'-2-pyridinyl-N'-(2-thienylmethyl)-	B, C, D	
U155	Methapyrilene	B, C, D	
U156	Carbonochloridic acid, methyl ester	B, C, D	
U156	Methyl chlorocarbonate	B, C, D	
U157	Benz[j]aceanthrylene, 1,2-dihydro-3-methyl-	B, C, D	
U157	3-Methylcholanthrene	B, C, D	
U158	Benzenamine, 4,4'-methylenebis[2-chloro-	B, C, D	
U158	4,4'-Methylenebis(2-chloroaniline)	B, C, D	
U159	2-Butanone	B, C, D	
U159	Methyl ethyl ketone (MEK)	B, C, D	
U160	2-Butanone, peroxide	B, C, D	
U160	Methyl ethyl ketone peroxide	B, C, D	
U161	Methyl isobutyl ketone	B, C, D	
U161	4-Methyl-2-pentanone	B, C, D	
U161	Pentanol, 4-methyl-	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
U162	Methyl methacrylate	B, C, D	
U162	2-Propenoic acid, 2-methyl-, methyl ester	B, C, D	
U163	Guanidine, N-methyl-N'-nitro-N-nitroso-	B, C, D	
U163	MNNG	B, C, D	
U164	Methylthiouracil	B, C, D	
U164	4(1H)-Pyrimidinone, 2,3-dihydro-6-methyl-2-thioxo-	B, C, D	
U165	Naphthalene	B, C, D	
U166	1,4-Naphthalenedione	B, C, D	
U166	1,4-Naphthoquinone	B, C, D	
U167	1-Naphthalenamine	B, C, D	
U167	alpha-Naphthylamine	B, C, D	
U168	2-Naphthalenamine	B, C, D	
U168	beta-Naphthylamine	B, C, D	
U169	Benzene, nitro-	B, C, D	
U169	Nitrobenzene	B, C, D	
U170	p-Nitrophenol	B, C, D	
U170	Phenol, 4-nitro	B, C, D	
U171	2-Nitropropane	B, C, D	
U171	Propane, 2-nitro-	B, C, D	
U172	1-Butanamine, N-butyl-N-nitroso-	B, C, D	
U172	N-Nitrosodi-n-butylamine	B, C, D	
U173	Ethanol, 2,2'-(nitrosoimino)bis-	B, C, D	
U173	N-Nitrosodiethanolamine	B, C, D	
U174	Ethanamine, N-ethyl-N-nitroso-	B, C, D	
U174	N-Nitrosodiethylamine	B, C, D	
U176	N-Nitroso-N-ethylurea	B, C, D	
U176	Urea, N-ethyl-N-nitroso-	B, C, D	
U177	N-Nitroso-N-methylurea	B, C, D	
U177	Urea, N-methyl-N-nitroso-	B, C, D	
U178	Carbamic acid, methylnitroso-, ethyl ester	B, C, D	
U178	N-Nitroso-N-methylurethane	B, C, D	
U179	N-Nitrosopiperidine	B, C, D	
U179	Piperidine, 1-nitroso-	B, C, D	
U180	N-Nitrosopyrrolidine	B, C, D	
U180	Pyrrolidine, 1-nitroso-	B, C, D	
U181	Benzenamine, 2-methyl-5-nitro-	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
U181	Nitro-o-toluidine	B, C, D	
U182	Paraldehyde	B, C, D	
U182	1,3,5-Trioxane, 2,4,6-trimethyl-	B, C, D	
U183	Benzene, pentachloro-	B, C, D	
U183	Pentachlorobenzene	B, C, D	
U184	Ethane, pentachloro-	B, C, D	
U184	Pentachloroethane	B, C, D	
U185	Benzene, pentachloronitro-	B, C, D	
U185	Pentachloronitrobenzene (PCNB)	B, C, D	
U186	1-Methylbutadiene	B, C, D	
U186	1,3-Pentadiene	B, C, D	
U187	Acetamide, N-(4-ethoxyphenyl)-	B, C, D	
U187	Phenacetin	B, C, D	
U188	Phenol	B, C, D	
U189	Phosphorus sulfide	B, C, D	
U189	Sulfur phosphide	B, C, D	
U190	1,3-Isobenzofurandione	B, C, D	
U190	Phthalic anhydride	B, C, D	
U191	2-Picoline	B, C, D	
U191	Pyridine, 2-methyl-	B, C, D	
U192	Benzamide, 3,5-dichloro-N-(1,1-dimethyl-2-propynyl)-	B, C, D	
U192	Pronamide	B, C, D	
U193	1,2-Oxathiolane, 2,2-dioxide	B, C, D	
U193	1,3-Propane sultone	B, C, D	
U194	1-Propanamine	B, C, D	
U194	n-Propylamine	B, C, D	
U196	Pyridine	B, C, D	
U197	p-Benzoquinone	B, C, D	
U197	2,5-Cyclohexadiene-1,4-dione	B, C, D	
U201	1,3-Benzenediol	B, C, D	
U200	Reserpine	B, C, D	
U200	Yohimban-16-carboxylic acid, 11,17-dimethoxy-18-[(3,4,5-trimethoxybenzoyl)oxy]-, methyl ester,(3beta,16beta,17alpha,18beta,20alpha)-	B, C, D	
U201	Resorcinol	B, C, D	
U202	Benzisothiazol-3(2H)-one, 1,1-dioxide, & salts	B, C, D	
U202	Saccharin, & salts	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
U203	1,3-Benzodioxole, 5-(2-propenyl)-	B, C, D	
U203	Safrole	B, C, D	
U204	Selenious acid	B, C, D	
U204	Selenium dioxide	B, C, D	
U205	Selenium sulfide	B, C, D	
U205	Selenium sulfide SeS2	B, C, D	
U206	Glucopyranose, 2-deoxy-2-(3-methyl-3-nitrosoureido)-,	B, C, D	
U206	D-Glucose, 2-deoxy-2-[[(methylnitrosoamino)-4 carbonyl]amino]-	B, C, D	
U206	Streptozotocin	B, C, D	
U207	Benzene, 1,2,4,5-tetrachloro-	B, C, D	
U207	1,2,4,5-Tetrachlorobenzene	B, C, D	
U208	Ethane, 1,1,1,2-tetrachloro-	B, C, D	
U208	1,1,1,2-Tetrachloroethane	B, C, D	
U209	Ethane, 1,1,2,2-tetrachloro-	B, C, D	
U209	1,1,2,2-Tetrachloroethane	B, C, D	
U210	Ethene, tetrachloro-	B, C, D	
U210	Tetrachloroethylene	B, C, D	
U211	Carbon tetrachloride	B, C, D	
U211	Methane, tetrachloro-	B, C, D	
U213	Furan, tetrahydro-	B, C, D	
U213	Tetrahydrofuran	B, C, D	
U214	Acetic acid, thallium(1+) salt see F027Acetic acid, (2,4,5-trichlorophenoxy)-	B, C, D	
U214	Thallium(I) acetate	B, C, D	
U215	Carbonic acid, dithallium(1+) salt	B, C, D	
U215	Thallium(I) carbonate	B, C, D	
U216	Thallium(I) chloride	B, C, D	
U216	Thallium chloride Tlcl	B, C, D	
U217	Nitric acid, thallium(1+) salt	B, C, D	
U217	Thallium(I) nitrate	B, C, D	
U218	Ethanethioamide	B, C, D	
U218	Thioacetamide	B, C, D	
U219	Thiourea	B, C, D	
U220	Benzene, methyl-	B, C, D	
U220	Toluene	B, C, D	
U221	Benzenediamine, ar-methyl-	B, C, D	
U221	Toluenediamine	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
U222	Benzenamine, 2-methyl-, hydrochloride	B, C, D	
U222	o-Toluidine hydrochloride	B, C, D	
U223	Benzene, 1,3-diisocyanatomethyl-	B, C, D	
U223	Toluene diisocyanate	B, C, D	
U225	Bromoform	B, C, D	
U225	Methane, tribromo-	B, C, D	
U226	Ethane, 1,1,1-trichloro-	B, C, D	
U226	Methyl chloroform	B, C, D	
U227	Ethane, 1,1,2-trichloro-	B, C, D	
U227	1,1,2-Trichloroethane	B, C, D	
U228	Ethene, trichloro-	B, C, D	
U228	Trichloroethylene	B, C, D	
U234	Benzene, 1,3,5-trinitro-	B, C, D	
U234	1,3,5-Trinitrobenzene	B, C, D	
U235	1-Propanol, 2,3-dibromo-, phosphate (3:1)	B, C, D	
U235	Tris(2,3-dibromopropyl) phosphate	B, C, D	
U236	2,7-Naphthalenedisulfonic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis [5-amino-4-hydroxy]-, tetrasodium salt	B, C, D	
U236	Trypan blue	B, C, D	
U237	2,4-(1H,3H)-Pyrimidinedione, 5-[bis(2-chloroethyl)amino]-	B, C, D	
U237	Uracil mustard	B, C, D	
U238	Carbamic acid, ethyl ester	B, C, D	
U238	Ethyl carbamate (urethane)	B, C, D	
U239	Benzene, dimethyl-	B, C, D	
U239	Xylene	B, C, D	
U240	Acetic acid, (2,4-dichlorophenoxy)-, salts & esters	B, C, D	
U240	2,4-D, salts & esters	B, C, D	
U243	Hexachloropropene	B, C, D	
U243	1-Propene, 1,1,2,3,3,3-hexachloro-	B, C, D	
U244	Thioperoxydicarbonic diamide [(H2N)C(S)]2S2, tetramethyl-	B, C, D	
U244	Thiram	B, C, D	
U246	Cyanogen bromide (CN)Br	B, C, D	
U247	Benzene, 1,1'-(2,2,2-trichloroethylidene)bis[4-methoxy-	B, C, D	
U247	Methoxychlor	B, C, D	
U248	Benzopyran-2-one, 4-hydroxy-3-(3-oxo-1-phenylbutyl)-, & salts, when present at concentrations of 0.3% or less	B, C, D	
U248	Warfarin, & salts, when present at concentrations of 0.3% or less	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
U249	Zinc phosphide Zn3P2, when present at concentrations of 10% or less	B, C, D	
U271	Benomyl	B, C, D	
U271	Carbamic acid, [1-[(butylamino)carbonyl]-1H-benzimidazol -2-yl]-,methyl ester	B, C, D	
U277	Carbamodithioic acid, diethyl-, 2-chloro-2-propenyl ester	B, C, D	
U277	Sulfallate	B, C, D	
U278	Bendiocarb	B, C, D	
U278	1,3-Benzodioxol-4-ol, 2,2-dimethyl-, methyl carbamate	B, C, D	
U279	Carbaryl	B, C, D	
U279	1-Naphthalenol, methylcarbamate	B, C, D	
U280	Barban	B, C, D	
U280	Carbamic acid, (3-chlorophenyl)-, 4-chloro-2-butynyl ester	B, C, D	
U328	Benzenamine, 2-methyl-	B, C, D	
U328	o-Toluidine	B, C, D	
U353	Benzenamine, 4-methyl-	B, C, D	
U353	p-Toluidine	B, C, D	
U359	Ethanol, 2-ethoxy-	B, C, D	
U359	Ethylene glycol monoethyl ether	B, C, D	
U364	Bendiocarb phenol	B, C, D	
U364	1,3-Benzodioxol-4-ol, 2,2-dimethyl-,	B, C, D	
U365	Azepine-1-carbothioic acid, hexahydro-, S-ethyl 1 ester	B, C, D	
U365	Molinate	B, C, D	
U366	Dazomet	B, C, D	
U366	2H-1,3,5-Thiadiazine- 2-thione, tetrahydro-3,5- dimethyl-	B, C, D	
U367	Benzofuranol, 2,3-dihydro-2,2-dimethyl-	B, C, D	
U367	Carbofuran phenol	B, C, D	
U372	Carbamic acid, 1H-benzimidazol-2-yl, methyl ester	B, C, D	
U372	Carbendazim	B, C, D	
U373	Carbamic acid, phenyl-, 1-methylethyl ester	B, C, D	
U373	Propham	B, C, D	
U375	Carbamic acid, butyl-, 3-iodo-2-propynyl ester	B, C, D	
U375	3-Iodo-2-propynyl n-butylcarbamate	B, C, D	
U376	Carbamodithioic acid, dimethyl-, tetraanhydrosulfide with orthothioselenious acid	B, C, D	
U376	Selenium, tetrakis(dimethyldithiocarbamate)	B, C, D	
U377	Carbamodithioic acid, methyl,- monopotassium salt	B, C, D	
U377	Potassium n-methyldithiocarbamate	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	**A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility** **B: *Reserved*** Placeholder for Building 4 treatment if the capability is developed at a later date. **C: Storage, Consolidation and Transfer in Container Management Facility** **D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B**
U378	Carbamodithioic acid, (hydroxymethyl) methyl-, monopotassium salt	**B, C, D**	
U378	Potassium n-hydroxymethyl- n-methyldi-thiocarbamate	**B, C, D**	
U379	Carbamodithioic acid, dibutyl, sodium salt	**B, C, D**	
U379	Sodium dibutyldithiocarbamate	**B, C, D**	
U381	Carbamodithioic acid, diethyl-, sodium salt	**B, C, D**	
U381	Sodium diethyldithiocarbamate	**B, C, D**	
U382	Carbamodithioic acid, dimethyl-, sodium salt	**B, C, D**	
U382	Sodium dimethyldithiocarbamate	**B, C, D**	
U383	Carbamodithioic acid, dimethyl, potassium salt	**B, C, D**	
U383	Potassium dimethyldithiocarbamate	**B, C, D**	
U384	Carbamodithioic acid, methyl-, monosodium salt	**B, C, D**	
U384	Metam Sodium	**B, C, D**	
U385	Carbamothioic acid, dipropyl-, S-propyl ester	**B, C, D**	
U385	Vernolate	**B, C, D**	
U386	Carbamothioic acid, cyclohexylethyl-, S-ethyl ester	**B, C, D**	
U386	Cycloate	**B, C, D**	
U387	Carbamothioic acid, dipropyl-, S-(phenylmethyl) ester	**B, C, D**	
U387	Prosulfocarb	**B, C, D**	
U389	Carbamothioic acid, bis(1-methylethyl)-, S-(2,3,3-trichloro-2-propenyl) ester	**B, C, D**	
U389	Triallate	**B, C, D**	
U390	Carbamothioic acid, dipropyl-, S-ethyl ester	**B, C, D**	
U390	EPTC	**B, C, D**	
U391	Carbamothioic acid, butylethyl-, S-propyl ester	**B, C, D**	
U391	Pebulate	**B, C, D**	
U392	Butylate	**B, C, D**	
U392	Carbamothioic acid, bis(2-methylpropyl)-, S-ethyl ester	**B, C, D**	
U393	Copper, bis(dimethylcarbamodithioato-S,S')-,	**B, C, D**	
U393	Copper dimethyldithiocarbamate	**B, C, D**	
U394	A2213	**B, C, D**	
U394	Ethanimidothioic acid, 2-(dimethylamino)-N-hydroxy-2-1 oxo-, methyl ester	**B, C, D**	
U395	Diethylene glycol, dicarbamate	**B, C, D**	
U395	Ethanol, 2,2'-oxybis-, dicarbamate	**B, C, D**	
U396	Ferbam	**B, C, D**	
U396	Iron, tris(dimethylcarbamodithioato-S,S')-,	**B, C, D**	
U400	Bis(pentamethylene)thiuram tetrasulfide	**B, C, D**	

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Waste Code	Description	Disposition	**A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility** **B: *Reserved*** Placeholder for Building 4 treatment if the capability is developed at a later date. **C: Storage, Consolidation and Transfer in Container Management Facility** **D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B**
U400	Piperidine, 1,1'-(tetrathiodicarbonothioyl)-bis-	**B, C, D**	
U401	Bis(dimethylthiocarbamoyl) sulfide	**B, C, D**	
U401	Tetramethylthiuram monosulfide	**B, C, D**	
U402	Tetrabutylthiuram disulfide	**B, C, D**	
U402	Thioperoxydicarbonic diamide, tetrabutyl	**B, C, D**	
U403	Disulfiram	**B, C, D**	
U403	Thioperoxydicarbonic diamide, tetraethyl	**B, C, D**	
U404	Ethanamine, N,N-diethyl-	**B, C, D**	
U404	Triethylamine	**B, C, D**	
U407	Ethyl Ziram	**B, C, D**	
U407	Zinc, bis(diethylcarbamodithioato-S,S')-	**B, C, D**	
U409	Carbamic acid, [1,2-phenylenebis (iminocarbonothioyl)]bis-, dimethyl ester	**B, C, D**	
U409	Thiophanate-methyl	**B, C, D**	
U410	Ethanimidothioic acid, N,N'-[thiobis[(methylimino)carbonyloxy]] bis-, dimethyl ester	**B, C, D**	
U410	Thiodicarb	**B, C, D**	
U411	Phenol, 2-(1-methylethoxy)-, methylcarbamate	**B, C, D**	
U411	Propoxur	**B, C, D**	
K001	Bottom sediment sludge from the treatment of wastewaters from wood preserving processes that use creosote and/or pentachlorophenol	**B, C, D**	
K002	Wastewater treatment sludge from the production of chrome yellow and orange pigments	**B, C, D**	
K003	Wastewater treatment sludge from the production of molybdate orange pigments	**B, C, D**	
K004	Wastewater treatment sludge from the production of zinc yellow pigments	**B, C, D**	
K005	Wastewater treatment sludge from the production of chrome green pigments	**B, C, D**	
K006	Wastewater treatment sludge from the production of chrome oxide green pigments (anhydrous and hydrated)	**B, C, D**	
K007	Wastewater treatment sludge from the production of iron blue pigments	**B, C, D**	
K008	Oven residue from the production of chrome oxide green pigments	**B, C, D**	
K009	Distillation bottoms from the production of acetaldehyde from ethylene	**B, C, D**	
K010	Distillation side cuts from the production of acetaldehyde from ethylene	**B, C, D**	
K011	Bottom stream from the wastewater stripper in the production of acrylonitrile	**B, C, D**	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
K013	Bottom stream from the acetonitrile column in the production of acrylonitrile	B, C, D	
K014	Bottoms from the acetonitrile purification column in the production of acrylonitrile	B, C, D	
K015	Still bottoms from the distillation of benzyl chloride	B, C, D	
K016	Heavy ends or distillation residues from the production of carbon tetrachloride	B, C, D	
K017	Heavy ends (still bottoms) from the purification column in the production of epichlorohydrin	B, C, D	
K018	Heavy ends from the fractionation column in ethyl chloride production	B, C, D	
K019	Heavy ends from the distillation of ethylene dichloride in ethylene dichloride production	B, C, D	
K020	Heavy ends from the distillation of vinyl chloride in vinyl chloride monomer production	B, C, D	
K021	Aqueous spent antimony catalyst waste from fluoromethanes production	B, C, D	
K022	Distillation bottom tars from the production of phenol/acetone from cumene	B, C, D	
K023	Distillation light ends from the production of phthalic anhydride from naphthalene	B, C, D	
K024	Distillation bottoms from the production of phthalic anhydride from naphthalene	B, C, D	
K025	Distillation bottoms from the production of nitrobenzene by the nitration of benzene	B, C, D	
K026	Stripping still tails from the production of methy ethyl pyridines	B, C, D	
K027	Centrifuge and distillation residues from toluene diisocyanate production	B, C, D	
K028	Spent catalyst from the hydrochlorinator reactor in the production of 1,1,1-trichloroethane	B, C, D	
K029	Waste from the product steam stripper in the production of 1,1,1-trichloroethane	B, C, D	
K030	Column bottoms or heavy ends from the combined production of trichloroethylene and perchloroethylene	B, C, D	
K031	By-product salts generated in the production of MSMA and cacodylic acid	B, C, D	
K032	Wastewater treatment sludge from the production of chlordane	B, C, D	
K033	Wastewater and scrub water from the chlorination of cyclopentadiene in the production of chlordane	B, C, D	
K034	Filter solids from the filtration of hexachlorocyclopentadiene in the production of chlordane	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

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K035	Wastewater treatment sludges generated in the production of creosote	B, C, D	
K036	Still bottoms from toluene reclamation distillation in the production of disulfoton	B, C, D	
K037	Wastewater treatment sludges from the production of disulfoton	B, C, D	
K038	Wastewater from the washing and stripping of phorate production	B, C, D	
K039	Filter cake from the filtration of diethylphosphorodithioic acid in the production of phorate	B, C, D	
K040	Wastewater treatment sludge from the production of phorate	B, C, D	
K041	Wastewater treatment sludge from the production of toxaphene	B, C, D	
K042	Heavy ends or distillation residues from the distillation of tetrachlorobenzene in the production of 2,4,5-T	B, C, D	
K043	2,6-Dichlorophenol waste from the production of 2,4-D	B, C, D	
K044	Wastewater treatment sludges from the manufacturing and processing of explosives	B, C, D	
K045	Spent carbon from the treatment of wastewater containing explosives	B, C, D	
K046	Wastewater treatment sludges from the manufacturing, formulation and loading of lead-based initiating compounds	B, C, D	
K047	Pink/red water from TNT operations	B, C, D	
K048	Dissolved air flotation (DAF) float from the petroleum refining industry	B, C, D	
K049	Slop oil emulsion	B, C, D	
K050	Heat exchanger bundle cleaning sludge from the petroleum industry	B, C, D	
K051	API separator sludge from the petroleum refining industry	B, C, D	
K052	Tank bottoms (leaded) from the petroleum refining industry	B, C, D	
K060	Ammonia still lime sludge from coking operations.	B, C, D	
K061	Emission control dust/sludge from the primary production of steel in electric furnaces.	A, B, C, D	
K062	Spent pickle liquor from steel finishing operations of plants that produce iron or steel.	A, B, C, D	
K069	Emission control dust/sludge from secondary lead smelting.	B, C, D	
K071	Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used	B, C, D	
K073	Chlorinated hydrocarbon waste from the purification step of the diaphragm cell process using graphite anodes in chlorine production	B, C, D	
K083	Distillation bottoms from aniline production	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	**A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility** **B: *Reserved*** Placeholder for Building 4 treatment if the capability is developed at a later date. **C: Storage, Consolidation and Transfer in Container Management Facility** **D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B**
K084	Wastewater treatment sludges generated during the production of veterinary pharmaceuticals from arsenic or organoarsenic compounds.	**B, C, D**	
K085	Distillation or fractionation column bottoms from the production of chlorobenzenes	**B, C, D**	
K086	Solvent washes and sludges, caustic washes and sludges, or water washes and sludges from cleaning tubs and equipment used in the formulation of ink from pigments, driers, soaps, and stabilizers containing chromium and lead.	**B, C, D**	
K087	Decanter tank tar sludge from coking operations.	**B, C, D**	
K088	Spent potliners from primary aluminum reduction.	**B, C, D**	
K093	Distillation light ends from the production of phthalic anhydride from ortho-xylene	**B, C, D**	
K094	Distillation bottoms from the production of phthalic anhydride from ortho-xylene	**B, C, D**	
K095	Distillation bottoms from the production of 1,1,1-trichloroethane	**B, C, D**	
K096	Heavy ends from the heavy ends column from the production of 1,1,1-trichloroethane	**B, C, D**	
K097	Vacuum stripper discharge from the chlordane chlorinator in the production of chlordane	**B, C, D**	
K098	Untreated process wastewater from the production of toxaphene	**B, C, D**	
K099	Untreated wastewater from the production of 2,4-D	**B, C, D**	
K100	Waste leaching solution from acid leaching of emission control dust/sludge from secondary lead smelting.	**B, C, D**	
K101	Distillation tar residues from the distillation of aniline-based compounds in the production of veterinary pharmaceuticals from arsenic or organo-arsenic compounds.	**B, C, D**	
K102	Residue from the use of activated carbon for decolorization in the production of veterinary pharmaceuticals from arsenic or organoarsenic compounds.	**B, C, D**	
K103	Process residues from aniline extraction from the production of aniline	**B, C, D**	
K104	Combined wastewater streams generated from nitrobenzene/aniline production	**B, C, D**	

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Waste Code	Description	Disposition	A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility B: *Reserved* Placeholder for Building 4 treatment if the capability is developed at a later date. C: Storage, Consolidation and Transfer in Container Management Facility D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B
K105	Separated aqueous stream from the reactor product washing step in the production of chlorobenzenes	**B, C, D**	
K106	Wastewater treatment sludge from the mercury cell process in chlorine production	**B, C, D**	
K107	Column bottoms from product separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	**B, C, D**	
K108	Condensed column overheads from product separation and condensed reactor vent gases from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	**B, C, D**	
K109	Spent filter cartridges from product purification from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	**B, C, D**	
K110	Condensed column overheads from intermediate separation from the production of 1,1-dimethylhydrazine (UDMH) from carboxylic acid hydrazides	**B, C, D**	
K111	Product washwaters from the production of dinitrotoluene via nitration of toluene	**B, C, D**	
K112	Reaction by-product water from the drying column in the production of toluenediamine via hydrogenation of dinitrotoluene	**B, C, D**	
K113	Condensed liquid light ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	**B, C, D**	
K114	Vicinals from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	**B, C, D**	
K115	Heavy ends from the purification of toluenediamine in the production of toluenediamine via hydrogenation of dinitrotoluene	**B, C, D**	
K116	Organic condensate from the solvent recovery column in the production of toluene diisocyanate via phosgenation of toluenediamine	**B, C, D**	
K117	Wastewater from the reactor vent gas scrubber in the production of ethylene dibromide via bromination of ethene	**B, C, D**	
K118	Spent adsorbent solids from purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	**B, C, D**	
K123	Process wastewater (including supernates, filtrates, and washwaters) from the production of ethylenebisdithiocarbamic acid and its salt	**B, C, D**	
K124	Reactor vent scrubber water from the production of ethylenebisdithiocarbamic acid and its salts	**B, C, D**	
K125	Filtration, evaporation, and centrifugation solids from the production of ethylenebisdithiocarbamic acid and its salts	**B, C, D**	
K126	Baghouse dust and floor sweepings in milling and packaging operations from the production or formulation of ethylenebisdithiocarbamic acid and its salts	**B, C, D**	
K131	Wastewater from the reactor and spent sulfuric acid from the acid dryer from the production of methyl bromide	**B, C, D**	

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K132	Spent absorbent and wastewater separator solids from the production of methyl bromide	**B, C, D**	
K136	Still bottoms from the purification of ethylene dibromide in the production of ethylene dibromide via bromination of ethene	**B, C, D**	
K141	Process residues from the recovery of coal tar, including, but not limited to, tar collecting sump residues from the production of coke from coal or the recovery of coke by-products produced from coal. This listing does not include K087 (decanter tank sludge from coking operations).	**B, C, D**	
K142	Tar storage tank residues from the production of coke from coal or from the recovery of coke by-products produced from coal	**B, C, D**	
K143	Process residues from the recovery of light oil, including, but not limited to, those generated in stills, decanters, and wash oil recovery units from the recovery of coke by-products produced from coal	**B, C, D**	
K144	Wastewater sump residues from light oil refining, including, but not limited to, intercepting or contamination sump sludges from the recovery of coke by-products produced from coal	**B, C, D**	
K145	Residues from naphthalene collection and recovery operations from the recovery of coke by-products produced from coal	**B, C, D**	
K147	Tar storage tank residues from coal tar refining	**B, C, D**	
K148	Residues from coal tar distillation, including but not limited to, still bottoms	**B, C, D**	
K149	Distillation bottoms from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups, (This waste does not include still bottoms from the distillation of benzyl chloride.)	**B, C, D**	
K150	Organic residuals, excluding spent carbon adsorbent, from the spent chlorine gas and hydrochloric acid recovery processes associated with the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	**B, C, D**	
K151	Wastewater treatment sludges, excluding neutralization and biological sludges, generated during the treatment of wastewaters from the production of alpha- (or methyl-) chlorinated toluenes, ring-chlorinated toluenes, benzoyl chlorides, and compounds with mixtures of these functional groups	**B, C, D**	

Table A3-6 - WASTE CODES AND DISPOSITION

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K156	Organic waste (including heavy ends, still bottoms, light ends, spent solvents, filtrates, and decantates) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	**B, C, D**	
K157	Wastewaters (including scrubber waters, condenser waters, washwaters, and separation waters) from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	**A, B, C, D**	
K158	Bag house dusts and filter/separation solids from the production of carbamates and carbamoyl oximes. (This listing does not apply to wastes generated from the manufacture of 3-iodo-2-propynyl n-butylcarbamate.)	**B, C, D**	
K159	Organics from the treatment of thiocarbamate wastes	**B, C, D**	
K161	Purification solids (including filtration, evaporation, and centrifugation solids), bag house dust and floor sweepings from the production of dithiocarbamate acids and their salts. (This listing does not include K125 or K126.)	**B, C, D**	
K169	Crude oil tank sediment from petroleum refining operations.	**B, C, D**	
K170	Clarified slurry oil sediment from petroleum refining operations.	**B, C, D**	
K171	Spent hydrotreating catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors (this listing does not include inert support media).	**B, C, D**	
K172	Spent hydrorefining catalyst from petroleum refining operations, including guard beds used to desulfurize feeds to other catalytic reactors	**B, C, D**	

Table A3-6 - WASTE CODES AND DISPOSITION

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K174	Wastewater treatment sludges from the production of ethylene dichloride or vinyl chloride monomer (including sludges that result from commingled ethylene dichloride or vinyl chloride monomer wastewater and other wastewater), unless the sludges meet the following conditions: (i) they are disposed of in a subtitle C or non-hazardous landfill licensed or permitted by the state or federal government; (ii) they are not otherwise placed on the land prior to final disposal; and (iii) the generator maintains documentation demonstrating that the waste was either disposed of in an on-site landfill or consigned to a transporter or disposal facility that provided a written commitment to dispose of the waste in an off-site landfill. Respondents in any action brought to enforce the requirements of subtitle C must, upon a showing by the government that the respondent managed wastewater treatment sludges from the production of vinyl chloride monomer or ethylene dichloride, demonstrate that they meet the terms of the exclusion set forth above. In doing so, they must provide appropriate documentation (e.g., contracts between the generator and the landfill owner/operator, invoices documenting delivery of waste to landfill, etc.) that the terms of the exclusion were met	**B, C, D**	
K175	Wastewater treatment sludges from the production of vinyl chloride monomer using mercuric chloride catalyst in an acetylene-based process	**B, C, D**	
K176	Baghouse filters from the production of antimony oxide, including filters from the production of intermediates (e.g., antimony metal or crude antimony oxide)	**B, C, D**	
K177	Slag from the production of antimony oxide that is speculatively accumulated or disposed, including slag from the production of intermediates (e.g., antimony metal or crude antimony oxide)	**B, C, D**	
K178	Residues from manufacturing and manufacturing-site storage of	**B, C, D**	

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K181	Nonwastewaters from the production of dyes and/or pigments (including nonwastewaters commingled at the point of generation with nonwastewaters from other processes) that, at the point of generation, contain mass loadings of any of the constituents identified in paragraph (c) of this section that are equal to or greater than the corresponding paragraph (c) levels, as determined on a calendar year basis. These wastes will not be hazardous if the nonwastewaters are: (i) disposed in a Subtitle D landfill unit subject to the design criteria in §258.40, (ii) disposed in a Subtitle C landfill unit subject to either §264.301 or §265.301, (iii) disposed in other Subtitle D landfill units that meet the design criteria in §258.40, §264.301, or §265.301, or (iv) treated in a combustion unit that is permitted under Subtitle C, or an onsite combustion unit that is permitted under the Clean Air Act. For the purposes of this listing, dyes and/or pigments production is defined in paragraph (b)(1) of this section. Paragraph (d) of this section describes the process for demonstrating that a facility's nonwastewaters are not K181. This listing does not apply to wastes that are otherwise identified as hazardous under §§261.21-261.24 and 261.31-261.33 at the point of generation. Also, the listing does not apply to wastes generated before any annual mass loading limit is met	**B, C, D**	
001K	Residues, including emission control sludges, from the production process and packaging of 4,4'-Methylenebis (2-chloroaniline)	**B, C, D**	
002K	Wash acids generated after the effective date of these rules from the production of 3,3'-Dichlorobenzidine and still bottoms from the recovery of these acids, excluding wash acids that are recycled or any materials that are reclaimed from the wash acids and used beneficially	**B, C, D**	
001S	Aflatoxin	**B, C, D**	
002S	Tetrachlorodibenzo-p-dioxin	**B, C, D**	
003S	Pentrachloribenzo-p-dioxin	**B, C, D**	
004S	Hexachlorodibenzo-p-dioxin	**B, C, D**	
005S	Hexachlorodibenzo-p-dioxin	**B, C, D**	
006S	Hexachlorodibenzo-p-dioxin	**B, C, D**	
007S	Tetrachloridibenzo furan	**B, C, D**	
001U	Actinomycin D	**B, C, D**	
002U	Allyl Chloride	**B, C, D**	
003U	2-aminoanthrquinone	**B, C, D**	
004U	Aminoazobenzene	**B, C, D**	
005U	0-aminoazotoluene	**B, C, D**	
006U	4-aminobephenyl	**B, C, D**	

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007U	3-amino-9-ethyl carbazole	B, C, D	
008U	1-amino-2-methyl anthraquinone	B, C, D	
009U	Anilazine	B, C, D	
011U	o-Anisidine	B, C, D	
012U	o-Anisidine hydrochloride	B, C, D	
013U	Antimony	B, C, D	
014U	Antimycin A	B, C, D	
015U	Barban	B, C, D	
016U	1,3-Butadiene	B, C, D	
017U	Benomyl	B, C, D	
020U	Bromoxynil	B, C, D	
021U	2(p-tert-Butylphenoxy)-isopropyl-2-chloroethyl	B, C, D	
022U	Captafol	B, C, D	
023U	Captan	B, C, D	
024U	Carbaryl	B, C, D	
025U	Carbofuran	B, C, D	
027U	Carbophenothion	B, C, D	
028U	Chloramines	B, C, D	
029U	Chloropyrifos	B, C, D	
030U	Chlorinated dibenzofurans	B, C, D	
031U	Chlorinated dioxins	B, C, D	
032U	Chlorine gas	B, C, D	
033U	2-Chloroethanol	B, C, D	
034U	3-(Chloromethyl) pyridine	B, C, D	
036U	4-Chloro-m-phenylenediamine	B, C, D	
037U	4-Chloro-o- phenylenediamine	B, C, D	
038U	Chloroprene	B, C, D	
040U	Clonitralid	B, C, D	
041U	Cobalt	B, C, D	
042U	Coumasphos	B, C, D	
043U	p-Cresidine	B, C, D	
044U	Crotoxyphos	B, C, D	
046U	Cycloheximide	B, C, D	
047U	Demeton	B, C, D	
048U	2,4 Diaminoanisole Sulfate	B, C, D	
049U	4,4'-Diaminodiphenyl ether	B, C, D	

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050U	2,4-diamino toluene	**B, C, D**	
051U	Diazinon	**B, C, D**	
052U	Dichlone	**B, C, D**	
054U	Dichlorvos	**B, C, D**	
055U	Dichrotophos	**B, C, D**	
056U	Diethyl sulfate	**B, C, D**	
057U	Dinocap	**B, C, D**	
058U	Dioxathion	**B, C, D**	
059U	EPN	**B, C, D**	
061U	Ethion	**B, C, D**	
063U	Fensulfothion	**B, C, D**	
064U	Fenthion	**B, C, D**	
065U	Fluchloralin	**B, C, D**	
068U	Hexamethyl phosphoramide	**B, C, D**	
070U	Hydroquinone	**B, C, D**	
071U	N-(2-Hydroxyethyl) ethyleneimine	**B, C, D**	
072U	Hypochlorite	**B, C, D**	
073U	Isonicotinic acid hydrazine	**B, C, D**	
074U	Ketene	**B, C, D**	
075U	Lactonitril	**B, C, D**	
076U	Leptophos	**B, C, D**	
077U	Lithium and compounds	**A, B, C, D**	
078U	Malachite green	**B, C, D**	
079U	Malathion	**B, C, D**	
080U	Mestranol	**B, C, D**	
082U	4,4'-Methylenebis(2-methylaniline)	**B, C, D**	
083U	4,4'-Methylenebis(N,N-dimethylaniline)	**B, C, D**	
086U	1-Methylnapthalene	**B, C, D**	
088U	Mevinphos	**B, C, D**	
089U	Mexacarbate	**B, C, D**	
090U	Mirex	**B, C, D**	
092U	Monocrotophos	**B, C, D**	
093U	Mustard gas	**B, C, D**	
094U	Naled	**B, C, D**	
095U	1,5-Napthalenediamine	**B, C, D**	
096U	Nickel	**B, C, D**	

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097U	Niridazole	B, C, D	
098U	Nithiazide	B, C, D	
099U	5-Nitroacenaphthene	B, C, D	
100U	Nitro-o-anisidine	B, C, D	
101U	4-Nitrobiphenyl	B, C, D	
102U	Nitrofen	B, C, D	
103U	N-(4-(5-nitro-2-furanyl)-2-thiazolyl)-acetamide	B, C, D	
104U	Nitrogen mustard	B, C, D	
106U	p-Nitrosodiphenylamine	B, C, D	
108U	N-Nitroso-N-phenylhydroxylamine	B, C, D	
110U	Oxydemeton-methyl	B, C, D	
111U	Paraquate dichloride	B, C, D	
112U	Peroxyacetic acid	B, C, D	
113U	Phenazopyridine hydrochloride	B, C, D	
114U	Phenesterin	B, C, D	
115U	Phenobarbitol	B, C, D	
116U	Phenytoin	B, C, D	
117U	Phenytoin sodium	B, C, D	
118U	Phosazetim	B, C, D	
119U	Phosmet	B, C, D	
120U	Phosphamidon	B, C, D	
121U	Piperonyl sulfoxide	B, C, D	
122U	Polybrominated biphenyls	B, C, D	
124U	Propiolactone	B, C, D	
127U	Prpoylthiouracil	B, C, D	
128U	Rotenone	B, C, D	
129U	Semicarbazide	B, C, D	
131U	Styrene	B, C, D	
132U	Sulfallate	B, C, D	
134U	TDE	B, C, D	
135U	TEPP	B, C, D	
136U	Terbufos	B, C, D	
137U	Tetrachlorvinphos	B, C, D	
138U	4,4'-Thiodianiline	B, C, D	
139U	o-Toluidine	B, C, D	
140U	Triaryl phosphate esters	B, C, D	

Table A3-6 - WASTE CODES AND DISPOSITION

Waste Code	Description	Disposition	**A: Treatment, Storage, Consolidation and Transfer in Waste Water Treatment Facility** **B: *Reserved*** Placeholder for Building 4 treatment if the capability is developed at a later date. **C: Storage, Consolidation and Transfer in Container Management Facility** **D: Storage, Consolidation and Transfer in Building 4, Building 5A and Building 5B**
141U	Trichlorfon	**B, C, D**	
142U	Trifluralin	**B, C, D**	
143U	2,4,5-Trimethylaniline	**B, C, D**	
144U	Triamethylphosphate	**B, C, D**	
146U	Ziram	**B, C, D**	
147U	Azinphos-ethyl	**B, C, D**	
148U	Azinphos-methyl	**B, C, D**	
150U	p-chlorophenol	**B, C, D**	
151U	5-chloro-o-toluidene	**B, C, D**	
152U	Chlorfenuinphos	**B, C, D**	
153U	Sodium fluoroacetate	**B, C, D**	
154U	Bis(tri-n-butyl tin) oxide	**B, C, D**	
155U	Vinylidene chloride	**B, C, D**	
157U	3-amino-9-ethyl carbazole	**B, C, D**	
158U	Aniline hydrochloride	**B, C, D**	
159U	Azobenzene	**B, C, D**	
160U	1,3-Butadiene	**B, C, D**	
161U	Butyl benzl phthalate	**B, C, D**	
162U	1-chloro-4-phenoxybenzene	**B, C, D**	
163U	1-chloropropene	**B, C, D**	
164U	P,P' DDE	**B, C, D**	
165U	N,N'-Diethylthiourea	**B, C, D**	
166U	1,2-Epoxybutane	**B, C, D**	
167U	Kanechlor C	**B, C, D**	
168U	N-Nitrosomethylvinylamine	**B, C, D**	
169U	Octachlorostyrene	**B, C, D**	
170U	Semicarbazide hydrochloride	**B, C, D**	
171U	Tributyltin (and other salts and esters)	**B, C, D**	
172U	1,2,3-Trichlorobenzene	**B, C, D**	
173U	1,2,4-Trichlorobenzene	**B, C, D**	
174U	Urethane	**B, C, D**	
175U	Vinyl bromide	**B, C, D**	

APPENDIX A3-1

LAND DISPOSAL RESTRICTION & CERTIFICATION FORM

Generator Name: _____ **U.S. EPA ID No.:** _____

Uniform Manifest No.: _____ **LDR Page** _____ **of** _____

Manifest Page No. & Line Item	U.S. EPA Hazardous Waste Code (s)	NWW or WW	LDR Certification (One per Line)	Subcategory	Reference Number(s) of Hazardous Constituents contained in the waste. Complete for F001-F005, F039, D001-D043, Contaminated Soil (10x) and Debris.

I hereby certify that all information submitted on this and all associated documents, is complete and accurate to the best of my knowledge and information.

Generator Signature: _____ **Title:** _____

Printed Name: _____ **Date:** _____

LAND DISPOSAL RESTRICTION & CERTIFICATION FORM

Instructions

Please complete one line per waste stream:

Column 1: Enter the corresponding manifest page number and line item.

Column 2: Identify all U.S. EPA hazardous waste codes that apply to this waste shipment.

Column 3: Choose the appropriate treatability group: Non-Wastewater (NWW) or Wastewater (WW). Wastewaters contain less than 1% filterable solids and less than 1% Total Organic Carbon.

Column 4: Enter the letter of the appropriate paragraph from page 3 of this form. *(For generators of contaminated soil using the 10X rule, please select 'S' and circle the appropriate options. Please include the certification page with your shipment.)*

Column 5: Enter the appropriate Subcategory, if applicable. A reference list is available on page 4 of this document.

Column 6: For F001 – F005, F039, D001 – D043, Debris and Contaminated Soil (10X): please enter the Reference Number(s) for any constituents in your waste stream subject to treatment. The Reference Number(s) can be found in the attached Underlying Hazardous Constituent Table on pages 5-8.

LAND DISPOSAL RESTRICTION & CERTIFICATION FORM

LDR Certifications

S. **GENERATORS OF CONTAMINATED SOIL**
THIS CONTAMINATED SOIL *DOES / DOES NOT* CONTAIN LISTED HAZARDOUS WASTE AND *DOES / DOES NOT* EXHIBIT
(CIRCLE ONE) (CIRCLE ONE)
A CHARACTERISTIC OF HAZARDOUS WASTE AND IS *SUBJECT TO / COMPLIES WITH* THE SOIL TREATMENT
(CIRCLE ONE)
STANDARDS AS PROVIDED BY 268.49(c) OR THE UNIVERSAL TREATMENT STANDARDS.

A. THIS RESTRICTED WASTE REQUIRES TREATMENT TO THE APPLICABLE STANDARD. This waste must be treated to the applicable performance-based treatment standard set forth in 40CFR Part 268 Subpart C and Subpart D, 268.40 or RCRA Section 3004(d) prior to land disposal.

B. THIS HAZARDOUS DEBRIS IS SUBJECT TO THE ALTERNATIVE TREATMENT STANDARDS OF 40 CFR 268.45.

C. THIS RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT TREATMENT. I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification that the waste complies with the treatment standards specified in 40 CFR part 268 subpart D. I believe that the information I submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.

D. THIS RESTRICTED WASTE HAS BEEN TREATED TO THE PERFORMANCE STANDARDS. I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the treatment standards specified in 40 CFR 268.40 without impermissible dilution of the prohibited waste. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

E. THIS LAB PACK DOES NOT CONTAIN ANY WASTES IDENTIFIED AT APPENDIX IV TO PART 268. I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack contains only wastes that have not been excluded under appendix IV to 40 CFR part 268 and that this lab pack will be sent to a combustion facility in compliance with the alternative treatment standards for lab packs at 40 CFR 268.42(c). I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment.

F. THIS RESTRICTED WASTE HAS BEEN TREATED TO REMOVE THE HAZARDOUS CHARACTERISTIC AND CONTAINS UNDERLYING HAZARDOUS CONSTITUENTS THAT REQUIRE FURTHER TREATMENT TO MEET THE UNIVERSAL TREATMENT STANDARDS. I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 or 268.49 to remove the hazardous characteristic. This decharacterized waste contains underlying hazardous constituents that require further treatment to meet treatment standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

G. THIS RESTRICTED WASTE HAS BEEN TREATED TO REMOVE THE HAZARDOUS CHARACTERISTIC AND BEEN TREATED FOR UNDERLYING HAZARDOUS CONSTITUENTS. I certify under penalty of law that the waste has been treated in accordance with the requirements of 40 CFR 268.40 to remove the hazardous characteristic and that underlying hazardous constituents, as defined in §268.2(i) have been treated on-site to meet the §268.48 Universal Treatment Standards. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

H. THIS RESTRICTED WASTE IS SUBJECT TO AN EXEMPTION FROM LAND DISPOSAL. *(Please include the date the waste is subject to the prohibitions in Column 5)* This waste is subject to an exemption from a prohibition on the type of land disposal method utilized for the waste (such as, but not limited to, a case-by-case extension under 40 CFR Part 268.5, an exemption under 40 CFR 268.6, or a nationwide capacity variance under 40 CFR 269 Subpart C)

I. THIS RESTRICTED WASTE WITH TREATMENT STANDARDS EXPRESSED AS CONCENTRATIONS IN THE WASTE PURSUANT TO 268.43, IF COMPLIANCE WITH THE TREATMENT STANDARDS IN SUBPART D OF THIS PART IS BASED IN PART OR IN WHOLE ON THE ANALYTICAL DETECTION LIMIT ALTERNATIVE IN 268.40(d). I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification. Based on my inquiry of those individuals immediately responsible for obtaining this information, I believe that the nonwastewater organic constituents have been treated by combustion units as specified in 268.42, Table 1. I have been unable to detect the nonwastewater organic constituents, despite having used best good-faith efforts to analyze for such constituents. I am aware there are significant penalties for submitting false certifications, including the possibility of fine and imprisonment.

J. TREATMENT FACILITIES GENERATING CONTAMINATED SOIL TREATED TO THE STANDARDS IN 268.49.
I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and believe that it has been maintained and operated properly so as to comply with treatment standards specified in 40 CFR 268.49 without impermissible dilution of the prohibited wastes. I am aware there are significant penalties for submitting a false certification, including the possibility of fine and imprisonment.

Subcategories

D001 – **Ignitable Characteristic Wastes**, except for the §261.21(a)(1) High TOC Subcategory.

D001 – **High TOC Ignitable Characteristic Liquids Subcategory** based on 40 CFR 261.21(a)(1) – Greater than or equal to 10% total organic carbon (Note: This subcategory consists of nonwastewaters only.)

D002 – **Acidic Subcategory** based on 40 CFR 261.22(a)(1) – It is aqueous and has a pH less than or equal to 2.

D002 – **Alkaline Subcategory** based on 40 CFR 261.22(a)(1) – It is aqueous and has a pH greater than or equal to 12.5.

D003 – **Reactive Sulfides Subcategory** based on 261.23(a)(5).

D003 – **Other Reactive Subcategory** based on 261.23(a)(1).

D003 – **Water Reactive Subcategory** based on 261.23(a)(2), (3), and (4). (Note: This subcategory consists of nonwastewaters only).

D003 – **Reactive Cyanides Subcategory** based on 261.23(a)(5)

D006 – **Cadmium Containing Batteries Subcategory**. (Note: This subcategory consists of nonwastewaters only).

D008 – **Lead Acid Batteries Subcategory**: (Note: This standard only applies to lead acid batteries that are identified as RCRA hazardous wastes and that are not excluded elsewhere from regulation under the land disposal restrictions of 40 CFR 268 or exempted (see 40 CFR 266.80). This subcategory consists of nonwastewaters only.)

D009 – Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that also contain organics and are not incinerator residues. **(High Mercury-Organic Subcategory)**

D009 – Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain greater than or equal to 260 mg/kg total mercury that are inorganic, including incinerator residues and residues from RMERC. **(High Mercury-Inorganic Subcategory)**

D009 – Nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are residues from RMERC only. **(Low Mercury Subcategory)**

D009 – All other nonwastewaters that exhibit, or are expected to exhibit, the characteristic of toxicity for mercury based on the toxicity characteristic leaching procedure (TCLP) in SW846; and contain less than 260 mg/kg total mercury and that are not residues from RMERC. **(Low Mercury Subcategory)**

F025 – Condensed light ends from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to and including five, with varying amounts and positions of chlorine substitution. **F025 – Light Ends Subcategory**

F025 – Spent filters and filter aids, and spent desiccant wastes from the production of certain chlorinated aliphatic hydrocarbons, by free radical catalyzed processes. These chlorinated aliphatic hydrocarbons are those having carbon chain lengths ranging from one to an including five, with varying amounts and positions of chlorine substitution. **F025 - Spent Filters/Aids and Desiccants Subcategory**

K069 – Emission control dust/sludge from secondary lead smelting – **Calcium Sulfate (Low Lead) Subcategory**

K069 – Emission control dust/sludge from secondary lead smelting – **Non-Calcium Sulfate (High Lead) Subcategory**

K071 – (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used) nonwastewaters that are residues from RMERC - **Residues from RMERC**

K071 – (Brine purification muds from the mercury cell process in chlorine production, where separately prepurified brine is not used.) nonwastewaters that are not residues from RMERC – **Not Residues from RMERC**
K106 – K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury – **High Mercury Subcategory**

K106 – K106 (wastewater treatment sludge from the mercury cell process in chlorine production) nonwastewaters that contain less than 260 mg/kg total mercury that are residues from RMERC – **Low Mercury RMERC Subcategory**

K106 – Other K106 nonwastewaters that contain less than 260 mg/kg total mercury and are not residues from RMERC. **– Low Mercury Subcategory**

P047 – **4,6-Dinitro-o-cresol**

P047 – **4,6-Dinitro-o-cresol salts**

P065 – Mercury Fulminate nonwastewaters, regardless of their total mercury content, that are no incinerator residues or are not residues from RMERC – **Not Residues**

P065 – Mercury Fulminate nonwastewaters that are either incinerator residues or are residues from RMERC; and contain greater than or equal to 260 mg/kg total mercury – **High Mercury Residues**

P065 – Mercury Fulminate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury – **Low Mercury RMERC Residue**

P065 – Mercury fulminate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury – **Low Mercury Incinerator Residue**

P092 – Phenyl mercuric acetate nonwastewaters, regardless of their total mercury content, that are not incinerator residues or are not residues from RMERC – **Not Residues**

P092 – Phenyl mercuric acetate nonwastewaters that are either incinerator residues or are residues from RMERC; and still contain greater than or equal to 260 mg/kg total mercury – **High Mercury Residues**

P092 – Phenyl mercuric acetate nonwastewaters that are residues from RMERC and contain less than 260 mg/kg total mercury – **Low Mercury RMERC Residues**

P092 – Phenyl mercuric acetate nonwastewaters that are incinerator residues and contain less than 260 mg/kg total mercury – **Low Mercury Incinerator Residue**

U151 – (mercury) nonwastewaters that contain greater than or equal to 260 mg/kg total mercury – **High Mercury Subcategory**

U151 – (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are residues from RMERC only – **Low Mercury RMERC Residues**

U151 – (mercury) nonwastewaters that contain less than 260 mg/kg total mercury and that are not residues from RMERC – **Low Mercury Subcategory**

U151 – All U151 (mercury) wastewaters – **All Subcategory**

U151 – Elemental mercury contaminated with radioactive materials – **Elemental RAM**

LAND DISPOSAL RESTRICTION & CERTIFICATION FORM

Universal Treatment Standards Table

ORGANIC CONSTITUENTS

Ref No.	Hazardous Constituent	WW mg/l	NWW mg/l	Ref No.	Hazardous Constituent	WW mg/l	NWW mg/l
1	Acenaphthene	0.059	3.4	42	2-Chloro-1,3-butadiene (Chloroprene)	0.057	0.28
2	Acenaphthylene	0.059	3.4	43	Chlorodibromomethane	0.057	15
3	Acetone	0.28	160	44	Chloroethane	0.27	6
4	Acetonitrile	5.6	38	45	Chloroform	0.046	6
5	Acetophenone	0.01	9.7	46	p-Chloro-m-cresol	0.018	14
6	2-Acetylaminofluorene	0.059	140	47	2-Chloroethyl vinyl ether	0.062	NA
7	Acrolein	0.29	NA	48	Chloromethane (Methyl chloride)	0.19	30
8	Acrylonitrile	0.24	84	49	2-Chloronaphthalene	0.055	5.6
9	Acrylamide	19	23	50	2-Chlorophenol	0.044	5.7
10	Aldrin	0.021	0.066	51	3-Chloropropylene (Allyl Chloride)	0.036	30
11	4-Aminobiphenyl	0.13	NA	52	Chrysene	0.059	3.4
12	Aniline	0.81	14	274	p-Credisine	0.01	0.66
273	o-Anisidine (2-methoxyaniline)	0.01	0.66	53	o-Cresol (2-Methyl phenol)	0.11	5.6
13	Anthracene	0.059	3.4	54	m-Cresol (3-Methyl phenol)	0.77	5.6
14	Aramite	0.36	NA	55	p-Cresol (4-Methyl phenol)	0.77	5.6
15	alpha-BHC	0.0001	0.066	56	Cyclohexanone	0.36	0.75*
16	beta-BHC	0.0001	0.066	57	o,p`-DDD	0.023	0.087
17	delta-BHC	0.023	0.066	58	p,p`-DDD	0.023	0.087
18	gamma-BHC (Lindane)	0.0017	0.066	59	o,p`-DDE	0.031	0.087
19	Benz(a)anthracene	0.059	3.4	60	p,p`-DDE	0.031	0.087
20	Benzal chloride	0.055	6	61	o,p`-DDT	0.0039	0.087
21	Benzene	0.14	10	62	p,p`-DDT	0.0039	0.087
22	Benzo(a)pyrene	0.061	3.4	63	Dibenz(a,h)anthracene	0.055	8.2
23	Benzo(b)fluoranthene	0.11	6.8	64	Dibenz(a,e)pyrene	0.061	NA
24	Benzo(k)fluoranthene	0.11	6.8	65	1,2-Dibromo-3-chloropropane	0.11	15
25	Benzo(g,h,i)perylene	0.0055	1.8	66	1,2-Dibromoethane (Ethylene dibromide)	0.028	15
26	bis(2-Chloroethoxy)methane	0.036	7.2	67	Dibromomethane	0.11	15
27	bis(2-Chloroethyl)ether	0.033	6	68	m-Dichlorobenzene (1,3-Dichlorobenzene)	0.036	6
28	bis(2-Chloroisopropyl) ether	0.055	7.2	69	o-Dichlorobenzene (1,2-Dichlorobenzene)	0.088	6
29	bis(2-Ethylhexyl) phthalate	0.28	28	70	p-Dichlorobenzene (1,4-Dichlorobenzene)	0.09	6
30	Bromodichloromethane	0.35	15	71	Dichlorodifluoromethane	0.23	7.2
31	Bromomethane (Methyl bromide)	0.11	15	72	1,1-Dichloroethane	0.059	6
32	4-Bromophenyl phenyl ether	0.055	15	73	1,2-Dichloroethane	0.21	6
33	n-Butyl alcohol	5.6	2.6	74	1,1-Dichloroethylene	0.025	6
34	Butyl benzyl phthalate	0.017	28	75	trans-1,2-Dichloroethylene	0.054	30
35	2-sec-Butyl-4,6-dinitrophenol (Dinoseb)	0.066	2.5	76	2,4-Dichlorophenol	0.044	14
36	Carbon disulfide	3.8	4.8	77	2,6-Dichlorophenol	0.044	14
37	Carbon tetrachloride	0.057	6	78	2,4-Dichlorophenoxyacetic acid (2.4-D)	0.72	10
38	Chlordane (alpha and gamma isomers)	0.0033	0.26	79	1,2-Dichloropropane	0.85	18
39	p-Chloroaniline	0.46	16	80	cis-1,3-Dichloropropylene	0.036	18
40	Chlorobenzene	0.057	6	81	trans-1,3-Dichloropropylene	0.036	18
41	Chlorobenzilate	0.1	NA	82	Dieldrin	0.017	0.13

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Ref No.	Hazardous Constituent	WW mg/l	NWW mg/l	Ref No.	Hazardous Constituent	WW mg/l	NWW mg/l
83	Diethyl phthalate	0.2	28	124	Iodomethane	0.19	65
84	p-Dimethylaminoazobenzene	0.13	NA	125	Isobutyl alcohol (Isobutanol)	5.6	170
267	2,4-Dimethlaniline (2,4-xylidine)	0.01	0.66	126	Isodrin	0.021	0.066
85	2,4-Dimethyl phenol	0.036	14	127	Isosafrole	0.081	2.6
86	Dimethyl phthalate	0.047	28	128	Kepone	0.0011	0.13
87	Di-n-butyl phthalate	0.057	28	129	Methacrylonitrile	0.24	84
88	1,4-Dinitrobenzene	0.32	2.3	130	Methanol	5.6	0.75
89	4,6-Dinitro-o-cresol	0.28	160	131	Methapyrilene	0.081	1.5
90	2,4-Dinitrophenol	0.12	160	132	Methoxychlor	0.25	0.18
91	2,4-Dinitrotoluene	0.32	140	133	3-Methylchloroanthrene	0.0055	15
92	2,6-Dinitrotoluene	0.55	28	134	4,4-Methylene bis (2-chloroaniline)	0.5	30
93	Di-n-octyl phthalate	0.017	28	135	Methylene chloride	0.089	30
94	Di-n-propylnitrosamine	0.4	14	136	Methyl ethyl ketone	0.28	36
95	1,4-Dioxane	12	170	137	Methyl isobutyl ketone	0.14	33
96	Diphenylamine	0.92	13	138	Methyl methacrylate	0.14	160
97	Diphenylnitrosamine	0.92	13	139	Methyl methansulfonate	0.018	NA
98	1,2-Diphenylhydrazine	0.087	NA	140	Methyl parathion	0.014	4.6
99	Disulfoton	0.017	6.2	141	Naphthalene	0.059	5.6
100	Endosulfan I	0.023	0.066	142	2-Naphthylamine	0.52	NA
101	Endosulfan II	0.029	0.13	143	o-Nitroaniline	0.27	14
102	Endosulfan sulfate	0.029	0.13	144	p-Nitroaniline	0.028	28
103	Endrin	0.0028	0.13	145	Nitrobenzene	0.068	14
104	Endrin aldehyde	0.025	0.13	146	5-Nitro-o-toluidine	0.32	28
106	Ethyl acetate	0.34	33	147	o-Nitrophenol	0.028	13
107	Ethyl benzene	0.057	10	148	p-Nitrophenol	0.12	29
108	Ethyl ether	0.12	160	150	N-Nitrosodiethylamine	0.4	28
109	Ethyl methacrylate	0.14	160	151	N-Nitrosodimethylamine	0.4	2.3
110	Ethylene oxide	0.12	NA	152	N-Nitroso-di-n-butylamine	0.4	17
111	Famphur	0.017	15	153	N-Nitrosomethylethylamine	0.4	2.3
112	Fluoranthene	0.068	3.4	154	N-Nitrosomorpholine	0.4	2.3
113	Fluorene	0.059	3.4	155	N-Nitrosopiperidine	0.013	35
114	Heptachlor	0.0012	0.066	156	N-Nitrosopyrrolidine	0.013	35
115	Heptachlor epoxide	0.016	0.066	264	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	0.000063	0.005
116	Hexachlorobenzene	0.055	10	265	1,2,3,4,6,7,8,9-Octachlorodibenzofluran	0.000063	0.005
117	Hexachlorobutadiene	0.055	5.6	157	Parathion	0.014	4.6
118	Hexachlorocyclopentadiene	0.057	2.4	158	Total PCBs (sum of all PCB isomers, or all Aroclors)	0.1	10
119	HxCDDs (All Hexachlorodibenzo-p-dioxins)	0.000063	0.001	159	Pentachlorobenzene	0.055	10
120	HxCDFs (All Hexachlorodibenzofurans)	0.000063	0.001	160	PeCDDs (All Pentachlorodibenzo-p-dioxins)	0.000063	0.001
261	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	0.000035	0.0025	161	PeCDFs (All Pentachlorodibenzofurans)	0.000035	0.001
262	1,2,3,4,6,7,8-Heptachlorodibenzofluran	0.000035	0.0025	162	Pentachloroethane	0.055	6
263	1,2,3,4,7,8,9-Heptachlorodibenzofluran	0.000035	0.0025	163	Pentachloronitrobenzene	0.055	4.8
121	Hexachloroethane	0.055	30	164	Pentachlorophenol	0.089	7.4
122	Hexachloropropylene	0.035	30	165	Phenacetin	0.081	16
123	Indeno (1,2,3-c,d) pyrene	0.0055	3.4	166	Phenanthrene	0.059	5.6

LAND DISPOSAL RESTRICTION & CERTIFICATION FORM

Ref No.	Hazardous Constituent	WW mg/l	NWW mg/l	Ref No.	Hazardous Constituent	WW mg/l	NWW mg/l
167	Phenol	0.039	6.2	184	Toluene	0.08	10
266	1,3-Phenylenediamine	0.01	0.66	185	Toxaphene	0.0095	2.6
168	Phorate	0.021	4.6	186	Tribromomethane (Bromoform)	0.63	15
169	Phthalic acid	0.055	28	187	1,2,4-Trichlorobenzene	0.055	19
170	Phthalic anhydride	0.055	28	188	1,1,1-Trichloroethane	0.054	6
171	Pronamide	0.093	1.5	189	1,1,2-Trichloroethane	0.054	6
172	Propanenitrile (Ethyl cyanide)	0.24	360	190	Trichloroethylene	0.054	6
173	Pyrene	0.067	8.2	191	Trichloromonofluoromethane	0.02	30
174	Pyridine	0.014	16	192	2,4,5-Trichlorophenol	0.18	7.4
175	Safrole	0.081	22	193	2,4,6-Trichlorophenol	0.035	7.4
176	Silvex (2,4,5-TP)	0.72	7.9	194	2,4,5-Trichlorophenoxyacetic acid/2,4,5-T	0.72	7.9
177	1,2,4,5-Tetrachlorobenzene	0.055	14	195	1,2,3-Trichloropropane	0.85	30
178	TCDDs (All Tetachlorodibenzo-p-dioxins)	0.000063	0.001	196	1,1,2-Trichloro- 1,2,2-trifluoroethane	0.057	30
179	TCDFs (All Tetrachlorodibenzofurans)	0.000063	0.001	197	tris-(2,3-Dibromopropyl) phosphate	0.011	0.1
180	1,1,1,2-Tetrachloroethane	0.057	6	198	Vinyl chloride	0.27	6
181	1,1,2,2-Tetrachloroethane	0.057	6	199	Xylenes -mixed	0.32	30
182	Tetrachloroethylene	0.056	6	219	2-Ethoxyethanol	N/A	N/A
183	2,3,4,6-Tetrachlorphenol	0.03	7.4	220	2-Nitropropane	N/A	N/A

INORGANIC CONSTITUENTS

Ref No.	Hazardous Constituent	WW mg/l	NWW mg/l
200	Antimony	1.9	1.15
201	Arsenic	1.4	5
202	Barium	1.2	21
203	Beryllium	0.82	1.22
204	Cadmium	0.69	0.11
205	Chromium (Total)	2.77	0.6
206	Cyanides (Total)	1.2	590
207	Cyanides (Amenable)	0.86	30
208	Fluoride	35	NA
209	Lead	0.69	0.75
210	Mercury (retort residues)	NA	0.2
211	Mercury (all others)	0.15	0.025
212	Nickel	3.98	11
213	Selenium	0.82	5.7
214	Silver	0.43	0.14
215	Sulfide	14	NA
216	Thallium	1.4	0.2
217	Vanadium	4.3	1.6
218	Zinc	2.61	4.3

QUALITY ASSURANCE MANUAL (QAM)

US Ecology Laboratories

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APPENDICES

[1] Program goal for 2019: Develop risk assessment criteria for subcontracting laboratories.

J.3 LAB-OP-003-ALL MDP 1311 *PENDING*
J.4 LAB-OP-005-ALL MDP 9010C
J.5 LAB-OP-007-ALL MDP 9040C and 9045D
J.6 LAB-OP-008-ALL MDP 9095B

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Section 3

INTRODUCTION AND SCOPE
(TNI V1:M2 – Sections 1,2,3)

The purpose of this *Quality Assurance Manual* is to outline the management system for US Ecology Laboratories. The *Quality Assurance Manual* defines the policies, procedures, and documentation that assure analytical services continually meet a defined standard of quality that is designed to provide clients with data of known and documented quality and, where applicable, demonstrate regulatory compliance.

The *Quality Assurance Manual* sets the standard under which all laboratory operations are performed, including the laboratory's organization, objectives, and operating philosophy. The *Quality Assurance Manual* has been prepared to assure compliance with the 2009 TNI Environmental Laboratory Sector Standard – Volume 1 **–** Management and Technical Requirements for Laboratories Performing Environmental Analysis (EL-V1-M1 through M7-ISO-2009). This Standard is consistent with ISO/IEC 17025:2005 requirements that are relevant to the scope of environmental testing services and thus, the laboratory operates a quality system in conformance with ISO/IEC 17025:2005(E). In addition, the policies and procedures outlined are compliant with the various accreditation and certification programs listed in Section 29 - Appendix E.

In addition, the *Quality Assurance Manual* has been prepared to be consistent with the following requirements:

- The SW846 Compendium (https://www.epa.gov/hw-sw846/sw-846-compendium)
- Clean Water Act (CWA) Compliance Monitoring (https://www.epa.gov/compliance/clean-water-act-cwa-compliance-monitoring).

3.1 Scope of Testing

The laboratory's scope of analytical testing services for each laboratory includes those listed in Section 29 - Appendix G.

Unless governed by Laboratory certification, Facility permit, or Facility Waste Analysis Plan, it is the policy of US Ecology to use the method revision identified by the SW846 Compendium.

3.2 Table of Contents, References and Appendices

The Table of Contents is in Section 2 and Appendices are in Section 29.

This *Quality Assurance Manual* uses the references included in Modules 1-7 in the 2009 TNI Environmental Laboratory Sector Standard – Volume 1 – Management and Technical Requirements for Laboratories Performing Environmental Analysis.

3.3 Glossary and Acronyms Used

Quality control terms are generally defined within the Section that describes the activity.

3.3.1 Glossary

The *Terms and Definitions* Section of Modules 1-7 in the 2009 TNI Environmental Laboratory Sector Standard – Volume 1 – Management and Technical Requirements for Laboratories Performing Environmental Analysis.

3.3.1.1 **The TNI Standard:** Modules 1-7 in the 2009 TNI Environmental Laboratory Sector Standard – Volume 1 – Management and Technical Requirements for Laboratories Performing Environmental Analysis (EL-V1, M1 through M7, ISO-2009).

3.3.2 Acronyms

A list of acronyms used in this document and their definitions are:

AB	–	Accrediting Body
ANSI	–	American National Standards Institute
ASQC	–	American Society for Quality Control
ASTM	–	American Society for Testing and Materials
Blk	–	Blank
°C	–	degrees Celsius
cal	–	calibration
CAS	–	Chemical Abstract Service
CCV	–	Continuing calibration verification
COC	–	Chain of custody
DO	–	Dissolved oxygen
DOC	–	Demonstration of Capability
EPA	–	Environmental Protection Agency
g/L	–	grams per liter
GC/MS	–	gas chromatography/mass spectrometry
ICP-MS	–	inductively coupled plasma-mass spectrometry
ICV	–	Initial calibration verification
ISO/IEC	–	International Organization for Standardization/International Electrochemical Commission
lb/in2	–	pound per square inch
LCS	–	Laboratory control sample
LFB	–	Laboratory fortified blank
LOD	-	Limit of Detection
LOQ	-	Limit of Quantitation
MDL	–	method detection limit
mg/Kg	–	milligrams per kilogram
mg/L	–	milligrams per liter
MS	–	matrix spike
MSD	–	matrix spike duplicate
NELAC	–	National Environmental Laboratory Accreditation Conference
NELAP	–	National Environmental Laboratory Accreditation Program
NIST	–	National Institute of Standards and Technology
PT	–	Proficiency Test(ing)
PTP	-	Proficiency Testing Provider
PTPA	–	Proficiency Testing Provider Accreditor

QA	–	Quality Assurance
QC	–	Quality Control
QM	–	*Quality Assurance Manual*
RL	–	Reporting level
RPD	–	Relative percent difference
RSD	–	Relative standard deviation
SOPs	–	Standard operating procedures
spk	–	spike
std	–	standard
TNI	-	The NELAC Institute
ug/L	–	micrograms per liter
UV	–	Ultraviolet
VOC	–	Volatile organic compound
WET	–	Whole effluent toxicity

3.4 Management of the *Quality Assurance Manual*

The Quality Manager is responsible for maintaining the currency of the *Quality Assurance Manual*.

The *Quality Assurance Manual* is reviewed annually by the Quality Manager and Facility Laboratory Directors to ensure it still reflects current practices and meets the requirements of any applicable regulations or client specifications. Sections of the manual are updated by making a change to the Section and then increasing the revision number by one. The cover sheet of the *Quality Assurance Manual* (Section 1) must be re-signed and the Table of Contents (Section 2) is updated whenever a Section is updated.

The *Quality Assurance Manual* is considered confidential within US Ecology and may not be altered in anyway except by approval of the Director of Laboratory Services and Quality Manager. If it is distributed to external users, it is for the purpose of reviewing US Ecology's management system and may not be used for any other purpose without written permission.

Section 4

ORGANIZATION
(TNI V1:M2 – Section 4.1)

The laboratory is a legally identifiable organization. The laboratory is responsible for carrying out testing activities that meet the requirements of the TNI Standard, the ISO/EIC 17025 Standard, and that meet the needs of the client. Through application of the policies and procedures outlined in this Section and throughout the *Quality Assurance Manual*:

- The laboratory assures that it is impartial and that personnel are free from undue commercial, financial, or other undue pressures that might influence their technical judgment.

- Management and technical personnel have the authority and resources to carry out their duties and have procedures to identify and correct departures from the laboratory's management system.

- Personnel understand the relevance and importance of their duties as related to the maintenance of the laboratory's management system.

- Ethics and data integrity procedures (see Section 29 -Appendix A, Section 5 – "Management" and Section 19 – "Data Integrity Investigations") ensure personnel do not engage in activities that diminish confidence in the laboratory's capabilities.

- Confidentiality is maintained.

4.1 Organization

US Ecology, Inc. is a leading North American provider of environmental services to commercial and government entities. The Company addresses the complex waste management needs of its customers, offering treatment, disposal and recycling of hazardous and radioactive waste, as well as a wide range of complementary field and industrial services. Under guidance of individual permits and/or Waste Analysis Plans, the laboratories provide support for the larger organization as a whole. A list of each Facility is given below and their Tax ID number is available upon request.

The laboratory operates out of the following Facilities:

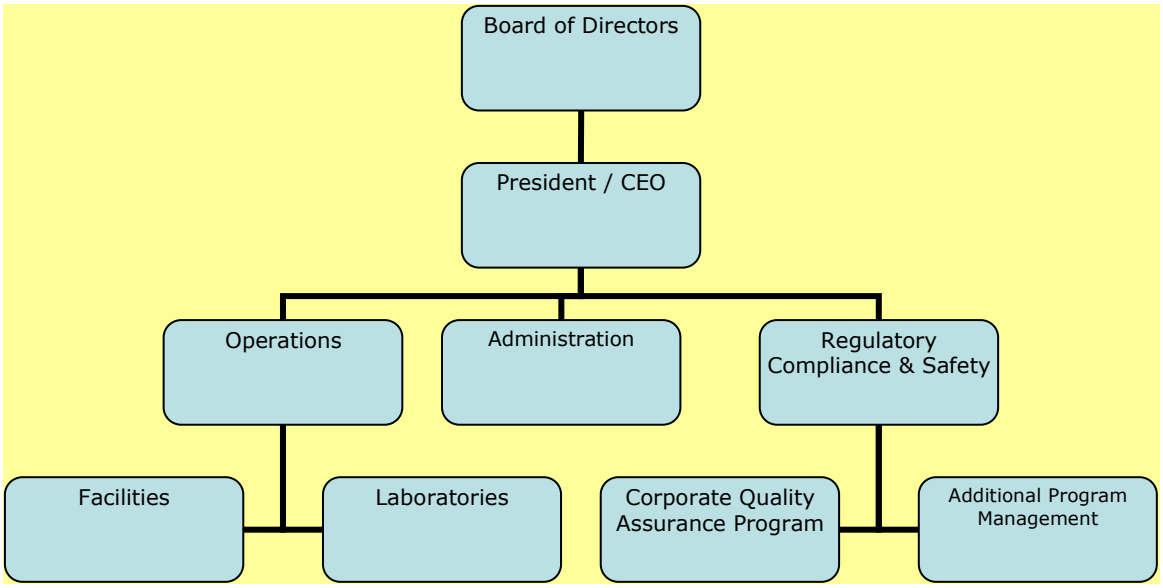
Stablex, A US Ecology Company: 760, Boulevard Industriel Blainville, QC
US Ecology Canton (Envirite of Ohio): 2050 Central Avenue Canton, OH 44707
US Ecology Chicago (Envirite of Illinois): 16435 Center Avenue Harvey, IL 60426
US Ecology Detroit (South): 1923 Frederick St Detroit, MI 48211
US Ecology Idaho: 20400 Lemley Rd. Grand View, ID 83624
US Ecology Michigan: 49350 North I-94 Service Drive Belleville, MI 48111
US Ecology Nevada: Highway 95, 11 miles S. of Beatty, NV 89003
US Ecology Sulligent: 51328 AL Hwy 17 Sulligent, AL 35586
US Ecology Tampa: 7202 East Eighth Avenue Tampa, FL 33619

US Ecology Texas: 3277 CR Robstown, TX 78380
US Ecology Tulsa: 2700 South 25th West Avenue Tulsa, OK 74107
US Ecology Vernon: 5375 S. Boyle Ave. Vernon, CA 90058
US Ecology York (Envirite of Pennsylvania): 730 Vogelsong Road York, PA 17404

The Corporate organization chart can be found at:
\\aecdc02.americanecology.com\Boise\SHARED\ORGANIZATIONAL CHARTS

The Corporate organization chart based on departments can be found in Figure 4-1.

Figure 4-1 – Corporate Organization Chart



The laboratory's organization chart can be found in Section 29 - Appendix B. Organizational charts are maintained by the Facility Laboratory Director and updated immediately after changes in personal and/or titles. Additional information regarding responsibilities, authority and interrelationship of personnel who manage, perform or verify testing is included in Section 5 –"Management" and Section 20 – "Personnel". These Sections also include information on supervision, training, technical management, job descriptions, quality personnel, and appointment of deputies for key managerial personnel.

The laboratory has the resources and authority to operate a management system that is capable of identifying departures from that system and from procedures during testing, and initiates actions to minimize or prevent departures.

4.2 Conflict of Interest and Undue Pressure

The organizational structure indicated above minimizes the potential for conflicting or undue interests that might influence the technical judgment of analytical personnel. In addition, procedures are in place to prevent outside pressures or involvement in

activities that may affect competence, impartiality, judgment, operational integrity, or the quality of the work performed at the laboratory.

Arrangements, such as policies and procedures to prevent commercial, financial or other influences that may negatively affect the quality of the work or negatively reflect on the competence, impartiality, judgment or operational integrity are described in individual job descriptions.

Section 5

MANAGEMENT
(TNI V1:M2 – Section 4.2)

The laboratory maintains a management system that is appropriate to the scope of its activities.

5.1 Management Requirements

Top management includes the Executive Vice President of Regulatory Compliance & Safety, Director of Laboratory Services, Facility Laboratory Directors, Technical Managers, and the Quality Manager.

Management's commitment to good professional practice and to the quality of its products is defined in the Quality Assurance Policy statement, Section 5.3.

Management has overall responsibility for the technical operations and the authority needed to generate the required quality of laboratory operations. Management ensures communication within the organization to maintain an effective management system and to communicate the importance of meeting customer, statutory, and regulatory requirements. Management assures that the system documentation is known and available so that appropriate personnel can implement their part. When changes to the management system occur or are planned, managers ensure that the integrity of the system is maintained.

Management is responsible for carrying out testing activities that meet the requirements of the TNI Standard, the ISO/IEC 17025 Standard, and that meet the needs of the client.

Managers implement, maintain, and improve the management system, and identify noncompliance with the management system procedures. Managers initiate actions to prevent or minimize noncompliance.

Management ensures technical competence of personnel operating equipment, performing tests, evaluating results, or signing reports, and limits authority to perform laboratory functions to those appropriately trained and/or supervised. For further information, reference Section 20 on Personnel in addition to Section 29 - Appendix I, Section I.2 Demonstration of Capability.

Management is responsible for defining the minimal level of education, qualifications, experience, and skills necessary for all positions in the laboratory and assuring that technical staff have demonstrated capabilities in their tasks.

Training is kept up to date as described in Section 20 – "Personnel" by periodic review of training records and through employee performance review.

Management bears specific responsibility for maintenance of the management system. This includes defining roles and responsibilities to personnel, approving documents, providing required training, providing a procedure for confidential reporting of data integrity issues, and periodically reviewing data, procedures, and documentation. The assignment of responsibilities, authorities, and interrelationships of the personnel who manage, perform, or verify work affecting the quality of environmental tests is documented in Section 20.

Management ensures that audit findings and corrective actions are completed within required time frames.

Designated deputies are appointed by management during the absence of the Laboratory Manager, Technical Manager or the Quality Manager, and always if the absence is more than 15 days.

5.2 Management Roles and Responsibilities

5.2.1 Executive Vice President, Regulatory Compliance & Safety

The EVP, Regulatory Compliance & Safety endorses the management system and data integrity program, and establishes leadership for the company.

For a job description and full list of responsibilities, see US Ecology Job Tracks.

5.2.2 Director of Laboratory Services

The Director of Laboratory Services establishes the overall management system and data integrity program for the company and assures that the management system and integrity program requirements are met.

5.2.2.1 Responsibilities:

The Director of Laboratory Services is responsible for:

a. Ensuring that personnel are free from any commercial, financial and other undue pressures that might adversely affect the quality of their work.
b. Ensuring that the Quality Manager and all Facility Laboratory Directors have the appropriate education and training to properly carry out the duties assigned to them by the QAM and ensures that this training has been documented.
c. Verifying that appropriate corrective actions are taken to address analyses identified as requiring such actions by internal and external performance or procedural audits. Procedures that do not meet the standards set forth in the Quality Assurance Manual, laboratory SOPs or laboratory policies may be temporarily suspended by the Director of Laboratory Services.
d. Reviews and approves all Corporate SOPs and policies prior to their implementation and ensures all approved Corporate SOPs and policies are provided to laboratory personnel and are adhered to.

For a job description and full list of responsibilities, see US Ecology Job Tracks.

5.2.3 General Manager

The General Manager provides the necessary leadership and resources to assure that the management system and integrity program requirements are met.

5.2.3.1 Responsibilities:

The General Manager (or designee) is responsible for:

a. Selecting personnel, placing them in proper positions, training them and evaluating their performance.
b. Providing management support of the Quality Assurance Program.
c. Providing the necessary resources to ensure the success of the Quality Assurance Program.
d. Reviews and approves all site-specific SOPs and policies prior to their implementation and ensures all approved site-specific SOPs and policies

For a job description and full list of responsibilities, see US Ecology Job Tracks.

5.2.4 Facility Laboratory Director

The Facility Laboratory Director is responsible for the overall quality, safety, financial, technical, human resource and service performance of the laboratory. The Facility Laboratory Director may be a Technical Manager whose experience is equivalent to the US Ecology Job Tracks Laboratory Manager I. For facilities that conduct regulatory work but do not have a Laboratory Manager I or higher position, the Director of Laboratory Services may act as your Facility Laboratory Director. For facilities that conduct non-regulatory work, a General Manager or Operations Manager may act as the Facility Laboratory Director. The Facility Laboratory Director provides the resources necessary to implement and maintain an effective quality and data integrity program. The Facility Laboratory Director's proof of experience in the fields of testing may be found in CORNERSTONE.

5.2.4.1 Responsibilities:

The Facility Laboratory Director is responsible for:

a. Ensuring that all analysts and supervisors have the appropriate education and training to properly carry out the duties assigned to them and ensures that this training has been documented.
b. Ensuring that appropriate corrective actions are taken to address analyses identified as requiring such actions by internal and external performance or procedural audits. Procedures that do not meet the standards set forth in the Quality Assurance Manual, laboratory SOPs or laboratory policies may be temporarily suspended by the Laboratory Director.

c. Reviews and approves all site-specific SOPs and policies prior to their implementation and ensures all approved site-specific SOPs and policies are provided to laboratory personnel and are adhered to.

For a job description and full list of responsibilities, see US Ecology Job Tracks.

For a list of Facility Laboratory Directors at US Ecology sites, contact the Quality Manager.

5.2.5 Quality Manager

The Quality Manager (or designee) is responsible for the oversight and review of quality control data, but is independent from laboratory operations (see Section 4.1). The Quality Manager's training and proof of experience in QA/QC procedures, knowledge of analytical methods, and the laboratory's management system are available in CORNERSTONE.

5.2.5.1 Responsibilities

The Quality Manager is responsible for:

a. serving as a focal point for QA/QC;
b. arranging or conducting annual internal audits without outside (e.g., managerial) influence;
c. notifying management of deficiencies, and monitoring corrective actions;
d. oversight and review of quality control data;
e. oversight and review of the Laboratory Information Management System (LIMS);
f. arranging or conducting internal audits annually;
g. ensuring that the management system related to quality is implemented and followed at all times;
h. monitoring and maintaining laboratory certifications; and
i. keeping this *Quality Assurance Manual* current.

For a job description and full list of responsibilities, see US Ecology Job Tracks.

5.2.6 Technical Manager

The Technical Manager (or designee) is a full-time laboratory staff member and supervises laboratory operations and data reporting. The Technical Manager may also act as the Facility Laboratory Director (see requirements in Section 5.2.4 above). For facilities that conduct regulatory work, a Chemist III or above may act as the Technical Manager. For facilities that conduct non-regulatory work, a Laboratory Technician may act as the Technical Manager. The Technical Manager's proof of experience in the fields of testing may be found in CORNERSTONE.

If the Technical Manager is absent for fifteen (15) calendar days or more, a deputy (see Table 5-1 below) with appropriate qualifications will perform the Technical Manager's duties. For accredited laboratories, beyond a thirty-five (35) calendar day absence, management will notify the primary accreditation body in writing of the absence of the Technical Manager and the appointment of the deputy.

The Technical Manager is not the technical manager of more than one environmental laboratory, except when appointed as a temporary Deputy (see Section 5.2.5 below).

5.2.6.1 Responsibilities

The Technical Manager is responsible for:

a. meeting the general and education requirements and qualifications found in Sections 4.1.7.2 and 5.2.6.1 of the TNI Standard - EL-V1M2-2009;
b. monitoring performance data and the validity of the analyses for the laboratory;
c. verifying personnel have appropriate education and technical background to perform the tests within the laboratories Scope of Activities.

For a job description and full list of responsibilities, see US Ecology Job Tracks.

For a list of Technical Managers at US Ecology sites, contact the Quality Manager.

5.2.7 Laboratory Key Personnel Deputies

The following table defines who assumes the responsibilities of key personnel in their absence:

Table 5-1 Key Personnel Deputies

Key Personnel	Deputy	Comment
Facility Laboratory Director	Director of Laboratory Services	
QA Manager	Director of Laboratory Services	
Technical Manager	Technical Manager	A Technical Manager whose regular laboratory maintains a Scope of Activity similar to the temporary assignment.

5.3 Quality Assurance Policy

Management's commitment to quality and to the management system is stated in the Quality Assurance Policy below, which is upheld through the application of related policies and procedures described in the laboratory's *Quality Assurance Manual*, SOPs and policies.

The objective of US Ecology's Laboratory Quality Management System is to support the management teams' commitment to consistently provide Operations with defensible data of known and documented quality that meets all regulatory requirements. Our policy is to always use good professional practices, to maintain

quality, to uphold the highest quality standards, and to comply with the requirements of both ISO/IEC 17025:2005€ and TNI NELAC Standard EL-V1-2009-ISO. US Ecology ensures that all laboratory personnel are free from all commercial, financial, and other undue pressures, which might adversely affect the quality of data. This policy is implemented and enforced through the unequivocal commitment of management, at all levels, to the Quality Assurance (QA) principles and practices outlined in this manual. However, the primary responsibility for quality rests with each individual within the laboratory organization. Every laboratory employee must ensure that the generation and reporting of quality analytical data is their fundamental priority. Every laboratory employee is required to familiarize themselves with the quality documentation and to implement the policies and procedures in their work. All employees are trained annually on ethical principles and procedures surrounding the data that is generated. It is US Ecology's responsibility to its employees to provide all resources and training necessary to support the implementation of the Quality Assurance plan.

5.4 Ethics and Data Integrity System

The laboratory has an Ethics and Data Integrity policy that is included in Section 29 - Appendix A. The laboratory's Ethics and Data Integrity program, training and investigations are discussed in Section 19 – "Data Integrity Investigations".

5.5 Documentation of Management/Quality System

The management system is defined through the policies and procedures provided in this *Quality Assurance Manual* and written laboratory Standard Operating Procedures (SOPs) and policies.

5.5.1 Quality Assurance Manual

The *Quality Assurance Manual* contains the following required items:

5.5.1.1 document title;

5.5.1.2 laboratory's full name and address;

5.5.1.3 name, address (if different from above), and telephone number of individual(s) responsible for the laboratory;

5.5.1.4 identification of all major organizational units which are to be covered by this Quality Assurance Manual and the effective date of the version;

5.5.1.5 identification of the laboratory's approved signatories;

5.5.1.6 the signed and dated concurrence (with appropriate names and titles), of all responsible parties including the quality manager(s), technical manager(s), and the agent who is in charge of all laboratory activities, such as the laboratory director or laboratory manager;

5.5.1.7 the objectives of the management system and contain or reference the laboratory's policies and procedures;

5.5.1.8 the laboratory's official Quality Assurance Policy statement, which shall include management system objectives and management's commitment to ethical laboratory practices and to upholding the requirements of this Standard; and

5.5.1.9 a table of contents, and applicable lists of references, glossaries and appendices.

This *Quality Assurance Manual* contains or references all required elements as defined by the TNI Standard - V1:M2, Section 4.2.8.4.

5.5.2 Standard Operating Procedures (SOPs)

Standard operating procedures (SOPs) represent all phases of current laboratory operations (they include an effective date, revision number, and signature of the approving authorities. Approving authorities for Corporate SOPs include the Director of Laboratory Services and a Technical Manager. Approving authorities for site-specific SOPs include the General Manager (or designee) and Technical Manager. SOPS are available to all personnel. They contain sufficient detail such that someone with similar qualifications could perform the procedures. There are two types of SOPs used in the laboratory: 1) test method SOPs, which have specific requirements as outlined below, and 2) general use SOPs which document general procedures.

Each analyte or method within the Laboratory Scope of Activity has an SOP. Sometimes an SOP is a copy of a method, and any additions are clearly described. The Quality Manager controls an SOP template (can be found in the OnBase Policy & Procedures Library) for laboratory test methods which includes the following topics:

i. identification of the method;
ii. applicable matrix or matrices;
iii. limits of detection and quantitation;
iv. scope and application, including parameters to be analyzed;
v. summary of the method;
vi. definitions;
vii. interferences;
viii. safety;
ix. equipment and supplies;
x. reagents and standards;
xi. sample collection, preservation, shipment and storage;
xii. quality control;
xiii. calibration and standardization;
xiv. procedure;
xv. data analysis and calculations;
xvi. method performance;
xvii. pollution prevention;
xviii. data assessment and acceptance criteria for quality control measures;
xix. corrective actions for out-of-control data;
xx. contingencies for handling out-of-control or unacceptable data;
xxi. waste management;
xxii. references; and
xxiii. any tables, diagrams, flowcharts and validation data.

A document identification system for Corporate Laboratory Documents shall follow the following format: LAB- *Document Type - three digit document ID* – ALL

Document Types shall be abbreviated as follows:

Document Type	Abbreviation
Policy	PL
Business Processes	BP
Management/EHS Programs	PR
Flowcharts	FC
Drawings/Diagrams	DR
Maps	MA
Forms	FM
Management Procedures	MP
Training Materials	TR
Standard Operating Procedures	OP
*Addendum	AD
Work Instructions	WI
Communications (i.e. Audit Manual, Guidance Documents, Marketing Material	CM

The current database of documents shall be maintained electronically by the Quality Manager.

5.5.3 Order of Precedence

In the event of a conflict or discrepancy between policies, the order of precedence is as follows unless otherwise noted:

- Quality Assurance Manual
- SOPs and Policies
- Other (Work Instructions (WI), memos, flow charts, etc.)

Section 7

REVIEW OF REQUESTS, TENDERS AND CONTRACTS
(TNI V1:M2 – Section 4.4)

The review of all new work assures that oversight is provided so that requirements are clearly defined, the laboratory has adequate resources and capability, and the test method is applicable to the customer's needs. This process assures that all work will be given adequate attention without shortcuts that may compromise data quality.

Contracts for new work may be formal bids, signed documents, verbal, or electronic. The client's requirements, including the methods to be used, must be clearly defined, documented and understood. Requirements might include target analyte lists, project specific reporting limits (if any), project specific quality control requirements (if any), turnaround time, and requirements for data deliverables. The review must also cover any work that will be subcontracted by the laboratory.

7.1 Procedure for the Review of Work Requests

The Technical Manager along with a Client Services representative and Approvals coordinator determine if the laboratory has the necessary accreditations, resources, including schedule, equipment, deliverables, and personnel to meet the work request. The review is documented in the corporate waste approvals database.

The Client Services representative informs the client of the results of the review if it indicates any potential conflict, deficiency, lack of accreditation, or inability of the lab to complete the work satisfactorily.

The client is informed of any deviation from the contract including the test method or sample handling processes. All differences between the request and the final contract are resolved and recordedbefore any work begins. It is necessary that the contract be acceptable to both the laboratory and the client. This information is recorded in the corporate waste approvals database.

The review process is repeated when there are amendments to the original contract by the client. The participating personnel are given copies of the amendments. The amendments are maintained in the corporate waste approvals database.

Note: For repetitive routine tasks, the review may be made only at the initial inquiry stage or on granting of a contract for on-going routine work performed under a general agreement with the client, provided the client's requirements don't change.

7.2 Documentation of Review

Records are maintained for every contract or work request, when appropriate. This includes pertinent discussions with a client relating to the client's requirements or

the results of the work during the period of execution of the contract. This information is recorded in the corporate waste approvals database.

Records of all project-related communication with the client (including e-mails, fax, telephone conversation etc) are kept in the corporate waste approvals database.

Section 8

SUBCONTRACTING OF ENVIRONMENTAL TESTS
(TNI V1:M2 – Section 4.5)

A subcontract laboratory is defined as a laboratory external to this laboratory, or at a different location than the address indicated on the front cover of this manual, that performs analyses for this laboratory.

When subcontracting analytical services, the laboratory assures work requiring accreditation is placed with an appropriately accredited laboratory or one that meets applicable statutory and regulatory requirements for performing the tests.

8.1 Procedure

The Quality Manager maintains a list of approved subcontractors.

A copy of the certificate and analyte list from subcontractors is maintained as evidence of compliance. This information is maintained by the Quality Manager and is kept electronically.

The certificate and analyte list are reviewed by the Quality Manager to ensure the subcontracting laboratory has the appropriate accreditation to do the work.

The Technical Manager notifies the client of the intent to subcontract the work in writing. When possible, the laboratory gains the approval of the client to subcontract their work prior to implementation, preferably in writing.

The laboratory performing the subcontracted work is identified in the final report. The laboratory assumes responsibility to the client for the subcontractor's work, except in the case where a client or a regulating authority specified which subcontractor is to be used.

Section 9

PURCHASING SERVICES AND SUPPLIES
(TNI V1:M2 – Section 4.6)

The laboratory ensures that purchased supplies and services that affect the quality of environmental tests are of the required or specified quality, by using approved suppliers and products.

The laboratory has procedures for purchasing, receiving, and storage of supplies that affect the quality of environmental tests.

9.1 Procedure

The Technical Manager reviews and approves the supplier of services and supplies and approves technical content of purchasing documents prior to ordering.

Evaluation of suppliers is accomplished by ensuring the supplier ships the product or material ordered and that the material is of the appropriate quality by signing packing slips or other supply receipt documents. The purchasing documents contain the data that adequately describes the services and supplies ordered. The description may include type, class, grade, identification, specifications or other technical information.

The supplies received are inspected for breakage, leaks or any other damage. The supplies and chemicals are checked for date of manufacture, expiration date, concentration, grade, and storage conditions. The supplies received are stored according to manufacturer's recommendations, laboratory SOPs or test method specifications.

Any documents received with the supplies and services including specifications, certificates of analyses, warranties, maintenance records, calibration records, etc. are kept on file by the Technical Manager.

The purchased supplies and reagents that affect the quality of the tests are not used until they are inspected or otherwise verified as complying with requirements defined in the test method.

9.2 Approval of Suppliers

The Purchasing Manager maintains a list of approved suppliers. Suppliers are evaluated following PUR-OP-250-ALL Supplier Selection, Qualification, and Performance.

Section 10

SERVICE TO THE CLIENT
(TNI V1:M2 – Section 4.7)

The laboratory collaborates with clients and/or their representatives in clarifying their requests and in monitoring laboratory performance related to their work. Each request is reviewed to determine the nature of the request and the laboratory's ability to comply with the request within the confines of prevailing statutes and/or regulations without risk to the confidentiality of other clients.

10.1 Client Confidentiality

The laboratory confidentiality policy is to not divulge or release any information to a third party without proper authorization. Third party requests for data and information are referred to the facility general manager. Data and records identified as proprietary, privileged, or confidential are exempt from disclosure.

All electronic data (storage or transmissions) are kept confidential, based on technology and laboratory limitations, as required by client or regulation.

A confidentiality statement is used on emails, documents and transmitted (fax) information. The statement is as follows:

US Ecology cannot be responsible for the confidentiality of electronically transmitted data unless prior arrangements have been made.

10.2 Client Support

Communication with the client, or their representative, is maintained to provide proper instruction and modification for testing. Technical staff is available to discuss any technical questions or concerns the client may have.

The client, or their representative, may be provided reasonable access to laboratory areas for witnessing testing.

Delays or major deviations to the testing are communicated to the client immediately. For incoming waste approvals, the Client Services Representative will communicate with the client in writing. For disposal, the EHS Manger will communicate with the client in writing.

The laboratory will provide the client with all requested information pertaining to the analysis of their samples. An additional charge may apply for additional data/information that was not requested prior to the time of sample analysis or previously agreed upon.

Note: A disclaimer is added to laboratory reports. The disclaimer and its conditions may be found in Section 7.0 of MSP-MP-009-ALL Document Control Program.

10.3 Client Feedback

The laboratory seeks both negative and positive feedback following the completion of projects and periodically for ongoing projects. Feedback provides acknowledgement, corrective actions where necessary, and opportunities for continuous improvement.

Negative customer feedback is documented as a customer complaint (see Section 11 – "Complaints").

Client feedback is collected by Client Services and the Regulatory Compliance Department. Representatives from each department communicate feedback in writing to the Quality Manager and Technical Manager. Feedback is reviewed monthly with the Laboratory Services Group.

Section 11

COMPLAINTS
(TNI V1:M2 – Section 4.8)

The purpose of this Section is to assure that customer complaints are addressed and corrected. This includes requests to verify results or analytical data. Complaints provide the laboratory an opportunity to improve laboratory operation and client satisfaction.

Complaints by customers or other parties are reviewed by management and an appropriate action is determined. All customer complaints are documented by the person receiving the complaint and addressed to the responsible manager.

If it is determined that the complaint has merit, the procedures outlined in Section 14 – Corrective Action are utilized. If it is determined that a complaint is without merit, it is documented, and the client is contacted by either the Client Service Representative (for incoming waste) or the EHS Manager (for regulatory matters).

A complaint such as a concern that data is repeatedly late should be reviewed for preventive action (see Section 15 – "Preventive Action") to minimize a future occurrence.

Section 12

CONTROL OF NON-CONFORMING ENVIRONMENTAL TESTING WORK
(TNI V1:M2 – Section 4.9)

Non-conforming work is work that does not meet acceptance criteria or requirements. Nonconformances can include departures from standard operating procedures or test methods or unacceptable quality control results (see Section 27 – "Quality Assurance for Environmental Testing"). Identification of non-conforming work can come through customer complaints, quality control, instrument calibration, evaluating consumable materials, staff observation, final report review, management reviews and internal and external audits.

12.1 Exceptionally Permitting Departures from Documented Policies and Procedures

Requests for departures from Corporate laboratory procedures are approved by the Quality Manager. Requests for departures from site-specific laboratory procedures are approved by the Laboratory Director and documented by the same. Revisions are documented on each procedure in accordance with Section 6 Document Control of this *QAM*. Planned departures from procedures or policies do not require audits or investigations.

Departures may include:

- Insufficient sample volume: If you do not receive the required sample volume, and the customer wants you to complete the analysis anyway, the departure must be document and the data qualified if necessary.
- Incorrect sample container: If you receive a sample in the incorrect container (per the method), and the customer wants you to complete the analysis anyway, the sample must be moved to the correct container and the departure must be documented.

12.2 Non-Conforming Work

The lab policy for control of non-conforming work is to identify the non-conformance, determine if it will be permitted, and take appropriate action. All employees have the authority to stop work on samples when any aspect of the process does not conform to laboratory requirements.

The responsibilities and authorities for the management of non-conforming work are detailed below:

- The laboratory evaluates the significance of the non-conforming work, and takes corrective action immediately. The customer is notified if their data has been impacted. The laboratory allows the release of non-conforming data only with approval by the Technical Manager a case-by-case basis. Non-conforming data is clearly identified in the final report (see Section 28 – "Reporting the Results").

- The discovery of a nonconformance for results that have already been reported to the customer must be immediately evaluated for significance of the nonconformance, its acceptability to the customer, and determination of the appropriate corrective action.

- Formal corrective action procedures must be followed for non-conforming work that could reoccur (beyond expected random QC failures) or where there is doubt about the laboratory's compliance to its own policies and procedures.

- The investigation and associated corrective actions of non-conforming work involving alleged violations of the company's Ethics and Data Integrity policies must follow the procedures outlined in Section 19 – "Data Integrity Investigations".

- Corrective action for routine, non-recurring exceedances can be documented on raw data worksheets, logbooks, e-mail, a database or other appropriate documents.

- Corrective action for non-conforming work that could reoccur or where there is doubt that the laboratory is in compliance with its own policies and procedures will require a formal corrective action process using the corrective action procedures described in Section 14 – "Corrective Action".

12.3 Stop Work Procedures

Personnel notify the Technical Manager of any nonconformance. The Technical Manger reviews the significance of the nonconformance and develops a course of action. If data are questionable, the Quality manager may be involved in the review and the clients are notified.

When an investigation of nonconformance indicates that the cause of the nonconformance requires that a method be restricted or not used until modifications are implemented, the Laboratory Director and Technical Manager will immediately notify all personnel of the suspension/restriction. The lab will hold all relevant reports to clients pending review. The Quality Manager must be involved in the resolution of the issue and must verify that the issue is resolved before work may resume. Personnel are notified by the Technical Manager when resumption of work is authorized. The Technical Manager and Quality Manager will document the issue, root cause and resolution using the corrective action procedures described in Section 14 – "Corrective Action".

Resumption of work after work has been stopped is authorized by the Director of Laboratory Services.

Section 13

IMPROVEMENT
(TNI V1:M2 – Section 4.10)

Improvement in the overall effectiveness of the laboratory management system is a result of the implementation of the various aspects of the laboratory's management system: quality policy and objectives (Section 5 – "Management"); internal auditing practices (Section 17 – "Internal Audits"); the review and analysis of data (Section 27 – "Quality Assurance for Environmental Testing"); the corrective action (Section 14 – "Corrective Action") and preventive action (Section 15 – "Preventive Action") process; and the annual management review of the quality management system (Section 18 – "Management Reviews") where the various aspects of the management/quality system are summarized, and evaluated and plans for improvement are developed.

Section 14

CORRECTIVE ACTION
(TNI V1:M2 – Section 4.11)

Corrective action is the action taken to eliminate the causes of an existing non-conformity, defect, or other undesirable situation in order to prevent recurrence.

Deficiencies cited in external assessments, internal quality audits, data reviews, customer feedback/complaints, control of nonconforming work or managerial reviews are documented and require corrective action. Corrective actions taken are appropriate for the magnitude of the problem and the degree of risk.

14.1 General Procedure

The laboratory uses ESCEND to document and track corrective actions. For ESCEND instructions reference MSP-WI-004-ALL ESCEND Incident Instructions.

The Technical Manager or representative is responsible for initiating corrective action on routine data reviews where a nonconformance is found that could reoccur (beyond expected random QC failures) or where there is doubt about the compliance of the laboratory to its own policies and procedures. The Technical Manager is responsible for monitoring and recording the corrective action.

All deficiencies are investigated and a corrective action plan is developed and implemented if determined necessary. The implementation is monitored for effectiveness.

14.1.1 Cause Analysis

When failures due to systematic errors have been identified, the first step of the corrective action process starts with the initial investigation and determination of root cause(s) of the problem. Records are maintained in ESCEND of nonconformances requiring corrective action to show that the root cause(s) was investigated, and includes the results of the investigation.

Where there may be non-systematic errors and as such the initial cause is readily identifiable or expected random failures (e.g. failed quality control), a formal root cause analysis is not performed and the process begins with selection and implementation of corrective action (also see Section 14.3 "Technical Corrective Actions").

14.1.2 Selection and Implementation of Corrective Actions

Where uncertainty arises regarding the best approach for analysis of the cause of exceedances that require corrective action, appropriate personnel will recommend

corrective actions that are appropriate to the magnitude and risk of the problem and that will most likely eliminate the problem and prevent recurrence

The Technical Manager ensures that corrective actions are discharged within the agreed upon time frame.

14.1.3 Monitoring of Corrective Action

The Technical Manager or representative will monitor implementation and documentation of the corrective action to assure that the corrective actions were effective.

Corporate procedures and timelines for corrective action can be found in MSP-MP-016-ALL Corrective Preventive Action Program.

14.2 Additional Audits

Where the identification of nonconformances or departures from normal lab procedures cast doubt on the laboratory's compliance with its own policies and procedures, or on its compliance with the TNI Standard, the laboratory ensures that the appropriate areas of activity are audited in accordance with Section 17 – "Internal Audits" as soon as possible.

In many cases, the additional audits are follow-ups after the corrective action has been implemented to ensure it is effective. These are done when a serious issue or risk to the laboratory have been identified.

14.3 Technical Corrective Action

Sample data associated with a failed quality control are evaluated for the need to be reanalyzed or qualified. Unacceptable quality control results are documented, and if the evaluation requires cause analysis, the cause and solution are recorded (also see Section 12 – "Control of Nonconforming Environmental Testing Work"*).* Analysts routinely implement corrective actions for data with unacceptable QC measures. First level correction may include re-analysis without further assessment. If the test method SOP addresses the specific actions to take, they are followed. Otherwise, corrective actions start with assessment of the cause of the problem.

Corrective action for non-systematic errors or expected random failures are documented in a spreadsheet maintained by the Technical Manager. Corrective actions for nonconformances that may reoccur (beyond expected random QC failures) or where there is concern that the laboratory is not in compliance with its own policies and procedures require that an ESCEND be completed (see Section 14.1).

Technical managers review corrective action reports and suggest improvements, alternative approaches, and procedures where needed.

If the data reported are affected adversely by the nonconformance, the affected data is clearly identified in the report and the customer is notified.

Section 15

PREVENTIVE ACTION
(TNI V1:M2 – Section 4.12)

Preventive action is a pro-active process to identify opportunities for improvement rather than a reaction to the identification of problems or complaints.

Preventive action includes, but is not limited to: review of QC data to identify quality trends, regularly scheduled staff quality meetings to ensure staff is knowledgeable in quality procedures, review of client feedback to look for improvement opportunities, review of proficiency testing data to look for analytes that were nearly missed, annual managerial reviews, scheduled instrument maintenance, running a new LIMS in tandem with the old system to assure at least one working system, and other actions taken to prevent problems.

When improvement opportunities are identified or if preventive action is required, action plans are developed, implemented and monitored to reduce the likelihood of the occurrence of nonconformities.

Procedures for preventive actions include the initiation of such actions and subsequent monitoring to ensure that they are effective.

All personnel have the authority to offer suggestions for improvements and to recommend preventive actions, however management is responsible for implementing preventive action.

Section 16

CONTROL OF RECORDS
(TNI V1:M2 – Section 4.13)

Records are a subset of documents, usually data recordings that include annotations, such as daily refrigerator temperatures posted to a laboratory form, lists, spreadsheets, or analyst notes on a chromatogram. Records may be on any form of media, including electronic and hard copy. Records allow for the historical reconstruction of laboratory activities related to sample-handling and analysis.

The laboratory maintains a record system appropriate to its needs, records all laboratory activities, and complies with applicable standards or regulations as required. Records of original observations and derived data are retained to establish an audit trail. Records help establish factors affecting the uncertainty of the test and enable test repeatability under conditions as close as possible to the original.

16.1 Records Maintained

Records of all procedures to which a sample is subjected while in the possession of the laboratory are kept. The laboratory retains all original observations, calculations and derived data (with sufficient information to produce an audit trail), calibration records, personnel records and a copy of the test report for a minimum of five years from generation of the last entry in the records. At a minimum, the following records are maintained by the laboratory to provide the information needed for historical reconstruction:

i) all raw data, whether hard copy or electronic, for calibrations, samples and quality control measures, including analysts' worksheets and data output records (chromatograms, strip charts, and other instrument response readout records);

ii) a written description or reference to the specific method(s) used, which includes a description of the specific computational steps used to translate parametric observations into a reportable analytical value (a copy of all pertinent Standard Operating Procedures);

iii) laboratory sample ID code;

iv) date of analysis;

v) time of analysis is required if the holding time is seventy-two (72) hours or less, or when time critical steps are included in the analysis (e.g., extractions and incubations);

vi) instrumentation identification and instrument operating conditions/parameters (or reference to such data);

vii) all manual calculations (including manual integrations);

viii) analyst's or operator's initials/signature or electronic identification;

ix) sample preparation, including cleanup, separation protocols, incubation periods or subculture, ID codes, volumes, weights, instrument printouts, meter readings, calculations, reagents;

x) test results (including a copy of the final report);

xi) standard and reagent origin, receipt, preparation, and use;

xii) calibration criteria, frequency and acceptance criteria;

xiii) data and statistical calculations, review, confirmation, interpretation, assessment and reporting conventions;

xiv) quality control protocols and assessment;

xv) electronic data security, software documentation and verification, software and hardware audits, backups, and records of any changes to automated data entries;

xvi) method performance criteria including expected quality control requirements;

xvii) proficiency test results;

xviii) records of demonstration of capability for each analyst;

xix) a record of names, initials, and signatures for all individuals who are responsible for signing or initialing any laboratory record;

xx) correspondence relating to laboratory activities for a specific project;

xxi) corrective action reports;

xxii) preventive action records;

xxiii) copies of internal and external audits including audit responses;

xxiv) copies of all current and historical laboratory SOPs, policies and *Quality Manual*s;

xxv) sample receiving records (including information on any interlaboratory transfers);

xxvi) sample storage records;

xxvii) data review and verification records;

xxviii) personnel qualification, experience and training records;

xxviv) archive records; and

xxviv) management reviews.

16.2 Records Management and Storage

The laboratory maintains a record management system for control of laboratory notebooks, instrument logbooks, standards logbooks, and records for data reduction, validation, storage, and reporting. Data is recorded immediately and legibly in permanent ink (data generated by automated data collections systems is recorded electronically.) Corrections are initialed and dated with the reason noted for corrections other than transcription errors. A single line strikeout is used to make corrections so that the original record is not obliterated. The original record is not obliterated.

The procedure for electronic records is discussed in MSP-MP-017-ALL Record Retention and Control Program.

Records, including electronic records, are easy to retrieve, legible, and protected from deterioration or damage; held secure and in confidence; and are available to accrediting bodies for a minimum of five years or as required by regulation or contract. Records that are stored only on electronic media are supported by the hardware and software necessary for their retrieval. Access to protected records is limited to Laboratory Management to prevent unauthorized access or amendment.

Additional information regarding control of data is included in Section 22.5 – "Control of Data".

Procedures for identification, collection, indexing, access, filing, storage, maintenance and disposal of quality and technical records are found in MSP-MP-017-ALL Record Retention and Control Program. Quality records shall include reports from internal audits and management reviews as well as records of corrective and preventive actions.

Archived information and access logs are protected against fire, theft, loss, environmental deterioration, vermin, and in the case of electronic records, electronic or magnetic sources. Archived records have limited access and are checked out through an access log. Records are archived onsite in accordance with the Facility procedures.

In the event that the laboratory transfers ownership or goes out of business, records are maintained or transferred according to client instructions. Appropriate regulatory and state legal requirements concerning laboratory records shall be followed.

16.3 Legal Chain of Custody Records

Not Applicable

Section 17

AUDITS
(TNI V1:M2 – Section 4.14)

Audits measure laboratory performance and verify compliance with accreditation/ certification and project requirements. Audits specifically provide management with an on-going assessment of the management system. They are also instrumental in identifying areas where improvement in the management/quality system will increase the reliability of data. Audits are of four main types: internal, external, performance, and system. Section 17.5 discusses the handling of audit findings.

17.1 Internal Audits

Annually, the laboratory prepares a schedule of internal audits to be performed during the year. These audits verify compliance with the requirements of the management/quality system, including analytical methods, SOPs, the *Quality Manual*, ethics policies, data integrity, other laboratory policies, and the TNI Standard.

It is the responsibility of the Quality Manager to plan and organize audits as required by the schedule and requested by management. These audits are carried out by trained and qualified personnel who are, wherever resources permit, independent of the activity to be audited.

In addition to the scheduled internal audits, it may sometimes be necessary to conduct special audits as a follow-up to corrective actions, PT results, complaints, regulatory audits or alleged data integrity issues. These audits address specific issues.

The area audited, the audit findings, and corrective actions are recorded. Audits are reviewed after completion to assure that corrective actions were implemented and effective.

For further information on the US Ecology Audit Program, reference MSP-MP-013 - ALL Internal Audit Procedure.

17.2 External Audits

It is the laboratory's policy to cooperate and assist with all external audits, whether performed by clients or an accrediting body. Management ensures that all areas of the laboratory are accessible to auditors as applicable and that appropriate personnel are available to assist in conducting the audit.

17.2.1 Confidential Business Information (CBI) Considerations

During on-site audits, on-site auditors may come into possession of information claimed as business confidential. A business confidentiality claim is defined as "a

claim or allegation that business information is entitled to confidential treatment for reasons of business confidentiality or a request for a determination that such information is entitled to such treatment." When information is claimed as business confidential, the laboratory must place on (or attach to) the information at the time it is submitted to the auditor, a cover sheet, stamped or typed legend or other suitable form of notice, employing language such as "trade secret", "proprietary" or "company confidential". Confidential portions of documents otherwise non-confidential must be clearly identified. CBI may be purged of references to client identity by the responsible laboratory official at the time of removal from the laboratory. However, sample identifiers may not be obscured from the information.

17.3 Performance Audits

Performance audits may be Proficiency Test Samples, internal single-blind samples, double-blind samples through a provider or client, or anything that tests the performance of the analyst and method.

Proficiency Test Samples are discussed in Section 27 – "Quality Assurance for Environmental Testing".

17.4 System Audits

The Laboratory's management system is audited though annual management reviews. Refer to Section 18 – "Management Reviews" for further discussion of management reviews.

17.5 Handling Audit Findings

Internal or external audit findings are responded to within the time frame agreed to at the time of the audit. The response may include action plans that could not be completed within the response time frame. A completion date is established by management for each action item and included in the response.

The responsibility for developing and implementing corrective actions to findings is the responsibility of the Technical Manager. Corrective actions are documented through the corrective action process described in Section 14 – "Corrective Actions".

Audit findings that cast doubt on the effectiveness of the laboratory operation to produce data of known and documented quality or that question the correctness or validity of sample results must be investigated. Corrective action procedures described in Section 14 – "Corrective Action" must be followed. Clients must be notified in writing if the investigation shows the laboratory results have been negatively affected and the clients requirements have not been met. The client must be notified within 48 hours after the laboratory discovers the issue. Laboratory management will ensure that this notification is carried out within the specified time frame.

All investigations that result in findings of inappropriate activity are documented and include any disciplinary actions involved, corrective actions taken, and all appropriate notifications of clients. See Section 19 (Data Integrity Investigation) for additional procedures for handling inappropriate activity.

Section 18

MANAGEMENT REVIEWS
(TNI V1:M2 – Section 4.15)

Top management reviews the management system on an annual basis and maintains records of review findings and actions.

18.1 Management Review Topics

The following are reviewed to ensure their suitability and effectiveness:

- the suitability of policies and procedures;
- reports from managerial and supervisory personnel;
- the outcome of recent internal audits;
- corrective and preventive actions;
- assessments by external bodies;
- the results of interlaboratory comparisons or proficiency tests;
- changes in the volume and type of the work;
- customer feedback;
- complaints;
- recommendations for improvement;
- other relevant factors, such as quality control activities, resources, and staff training.

18.2 Procedure

Reference MSP-MP-018-ALL Management Review Program for procedural information.

Findings and follow-up actions from management reviews are recorded. Management will determine appropriate completion dates for action items and ensure they are completed within the agreed upon time frame.

Section 19

DATA INTEGRITY INVESTIGATIONS
(TNI V1:M2 – Section 4.16)

In addition to covering data integrity investigations, this Section covers all topics related to ethics and data integrity policies, procedures and training.

US Ecology is committed to ensuring the integrity of its data and providing valid data of known and documented quality to its clients. The elements in LAB-PR-002-ALL Data Integrity and Ethics program include:

- Documented data integrity procedures signed and dated by top management.
- An Ethics and Data Integrity Policy signed by all management and staff at the start of employment and annually thereafter (see Appendix A). This policy is signed, dated and distributed by the Executive Vice President, Regulatory Compliance and Safety in addition to the Director of Laboratory Services.
- Annual data integrity training.
- Procedures for confidential reporting of alleged data integrity issues.
- An audit program that monitors data integrity (see Section 17 – "Audits") and procedures for handling data integrity investigations and client notifications.

19.1 Ethics and Data Integrity Procedures

The Ethics and Data Integrity Policy provides an over view of the program. Written procedures that are considered part of the Ethics and Data Integrity program include:

- Ethics and Data Integrity Policy (see Appendix A)
- Ethics Agreement (LAB-FM-002-ALL)
- Manual integration Training (Cornerstone)
- Corrective action procedures (Section 14 of this *QAM*)
- Procedures for Data Integrity Investigations
    - Data Integrity and Ethics Program LAB-PR-002-ALL
    - Facility Laboratory Data Integrity Plan (FM template controlled by Quality Manager)
- Data Integrity training procedures (Cornerstone)

Management reviews data integrity procedures yearly and updates these procedures as needed.

19.2 Training

Data integrity training is provided as a formal part of new employee orientation and a refresher is given annually for all employees. Employees are required to

understand that any infractions of the laboratory data integrity procedures shall result in a detailed investigation that could lead to very serious consequences including immediate termination, debarment or civil/criminal prosecution. This is discussed in the Ethics Agreement that every laboratory employee is required to sign annually. Attendance for required training is monitored through a signature attendance sheet.

An agenda is provided to each trainee prior to the training class. Data integrity training emphasizes the importance of proper written narration on the part of the analyst with respect to those cases where analytical data may be useful, but are in one sense or another partially deficient. The following topics and activities are covered:

- organizational mission and its relationship to the critical need for honesty and full disclosure in all analytical reporting;
- how and when to report data integrity issues;
- record keeping;
- training, including discussion regarding all data integrity procedures;
- data integrity training documentation;
- in-depth data monitoring and data integrity procedure documentation; and
- specific examples of breaches of ethical behavior such as improper data manipulations, adjustments of instrument time clocks, and inappropriate changes in concentrations of standards.

When contracted technical or support personnel are used, The Technical Manager is responsible for ensuring that they are trained to the laboratory's management system and data integrity procedures, competent to perform the assigned tasks, and appropriately supervised.

Topics covered are provided in writing and provided to all trainees.

19.3 Confidential Reporting of Ethics and Data Integrity Issues

Confidential reporting of data integrity issues is assured. Procedures may be found in the Facility Laboratory Data Integrity Plan.

19.4 Investigations

All investigations resulting from data integrity issues are conducted confidentially. They are documented and notifications are made to clients who received any negatively affected data that did not meet the client's data quality requirements. Procedures for investigation are included in the Facility Laboratory Data Integrity Plan.

Section 20

PERSONNEL
(TNI V1:M2 – Section 5.2)

US Ecology employs competent personnel based on education, training, experience and demonstrated skills as required. The laboratory's organization chart can be found in Appendix B.

20.1 Overview

All personnel are responsible for complying with all quality and data integrity policies and procedures that are relevant to their area of responsibility.

All personnel who are involved in activities related to sample analysis, evaluation of results or who sign test reports, must demonstrate competence in their area of responsibility. Appropriate supervision is given to any personnel in training and the trainer is accountable for the quality of the trainees work. Personnel are qualified to perform the tasks they are responsible for based on education, training, experience and demonstrated skills as required for their area of responsibility.

The laboratory provides goals with respect to education, training and skills of laboratory staff. These goals are outlined in the job description. Training needs are identified at the time of employment and when personnel are moved to a new position or new responsibilities are added to their job responsibilities. Ongoing training, as needed, is also provided to personnel in their current jobs. The effectiveness of the training must be evaluated before the training is considered complete.

Contracted personnel, when used, must meet the same competency standards and follow the same policies and procedures that laboratory employees must meet.

20.2 Job Descriptions

Job descriptions are available for all positions that manage, perform, or verify work affecting data quality, and are located in ADP. An overview of top management's responsibilities are included in Section 5 – "Management".

Job descriptions include the specific tasks, minimum education and qualifications, skills, and experience required for each position.

20.3 Training

All personnel are appropriately trained and competent in their assigned tasks before they contribute to functions that can affect data quality. It is management's responsibility to assure personnel are trained. Training records are used to document management's approval of personnel competency. The date on which authorization and/or competence is confirmed is included.

Training records are maintained in ADP and Cornerstone. They include a signed Ethics Agreement in addition to job specific requirements.

20.3.1 Training for New Staff

New staff members are given introductory training and orientation upon arrival. The training is documented on a training attendance sheet that outlines what was covered during the training. The new employee also receives Data Integrity training and must sign-off on Ethics and Data Integrity Policy in addition to the Ethics Agreement.

The initial training for a new task contains the following steps:

- All documentation involved with a new and unfamiliar task is read and understood by the trainee.
- Training is under the direct supervision of a qualified senior analysist. During the time the analysis is in training, the trainee may sign laboratory notebooks, logbooks, worksheets, etc. but they must be co-signed by the trainer who is responsible for the data generated.
- The trainee demonstrates competency in the new task before they can operate independently. The competency for a test method is accomplished by a demonstration of capability as defined in Section 22 – "Environmental Methods and Method Validation". Approval of competency is noted by the date and initials or signature of the Technical Manager on a training form.
- Each step of the training process is documented.
- The documentation is maintained in the employee training record.

20.3.2 Ongoing Training

All staff members are given refresher data integrity training and are required to sign off on the Ethics and Data Integrity Policy. The training is documented on a training attendance sheet that outlines what was covered during the training.

Staff members are given the following ongoing training:

- The employee attests, through signature, that they have read, understood, and agree to perform the latest version of the *Quality Assurance Manual* and any SOPs or policies that the analyst is responsible for following.
- Annually the analyst shows continued proficiency in each method (and for each parameter) they perform. The competency for a test method is accomplished by a demonstration of capability as defined in Section 22 – "Environmental Methods and Method Validation". Approval of competency is noted by the date and initials or signature of the Technical Manager on a training form.
- Attending training related to a job function as applicable.
- Maintaining training documentation in the employees training record.

Section 21

ACCOMODATIONS AND ENVIRONMENTAL CONDITIONS
(TNI V1:M2 – Section 5.3)

21.1 Environmental

The laboratory facility is designed and organized to facilitate testing of environmental samples. Environmental conditions are monitored to ensure that conditions do not invalidate results or adversely affect the required quality of any measurement. Such environmental conditions include humidity, voltage, temperature, dust, light, and vibration.

If the laboratory environment is required to be controlled by a method or regulation, the adherence is recorded. An example is the recording of temperature during TCLP extraction.

Environmental tests are stopped when the environmental conditions jeopardize the results.

21.2 Work Areas

Work areas may include access and entryways to the laboratory, sample receipt area, sample storage area, sample process area, instrumental analysis area, chemical and waste storage area and data handling and storage area.

Access to, and use of, areas affecting the quality of the environmental tests is controlled by restriction of areas to authorized personnel only. See Section 21.4 below.

The laboratory work spaces are adequate for their use, and appropriately clean to support environmental testing and ensure an unencumbered work area.

Laboratory space is arranged to minimize cross-contamination between incompatible areas of the laboratory. Examples include; volatiles analysis is in a room with a separate air system from the rest of the lab. Electronic balances are located away from drafts and doorways, and mounted in areas where their use is not affected by vibration.

Additional technical requirements may be documented in the test method.

The laboratory procedure for good housekeeping includes such measures as:

- Janitorial service either internal or contacted
- Proper storage of chemicals, reagents, supplies, and equipment.
- Each employee is responsible for straightening up their work area at the end of the shift

For additional procedures on maintaining an unencumbered work area refer to QES-OP-010-All Housekeeping.

21.3 Floor Plan

A floor plan for each laboratory can be found in Appendix C.

21.4 Building Security

The laboratory is kept secure during off hours by security personal and/or door locks. Security personal are stationed at the entrance to the facility and are used to monitor visitors. Door locks are maintained on each laboratory entrance.

A Visitor's Logbook is maintained for every visitor to sign in and out. Visitors must be accompanied by laboratory personnel when in secure areas.

Signs are used to designate secure areas.

Section 22

ENVIRONMENTAL METHODS AND METHOD VALIDATION
(TNI V1:M2 – Section 5.4 and Sections 1.4, 1.5 and 1.6 of Technical Modules TNI V1:M 3-7)

Methods and/or procedures are available for all activities associated with the analysis of the sample including preparation and testing. For purposes of this Section, "method" refers to both the sample preparation and determinative methods. For a list of test methods, refer to Appendix G - "Laboratory Scope of Activities".

Before being put into use, a test method is confirmed by a demonstration of capability or method validation process.

All methods are published or documented. Deviations from the methods are allowed only if the deviation is documented, technically justified, authorized by management and accepted by the customer

22.1 Method Selection

A reference method is a method issued by an organization generally recognized as competent to do so. (When ISO refers to a standard method, that term is equivalent to reference method.) When a laboratory is required to analyze a parameter by a specified method due to a regulatory requirement, the parameter/method combination is recognized as a reference method.

The laboratory will use methods that meet the needs of the customer. Such methods will be based on the latest edition of the method unless it does not meet the needs of the customer.

The laboratory selects methods that are appropriate to the customer needs. When the regulatory authority mandates or promulgates methods for a specific purpose, only those methods will be used.

If a method proposed by a customer is considered to be inappropriate or out-of-date, the customer is informed and the issue resolved before proceeding with analysis of any samples (see Section 7 – Review of Requests, Tenders and Contracts).

When a method is not specified by the customer, or the proposed method is inappropriate, the laboratory use the process outlined below to select a method that is appropriate to the end use of the data. The customer will be informed of the selected method and must approve its use before being used to report data.

<u>Selection Process</u>

- If the data are to be submitted to a regulatory authority, the method(s) specified by the regulatory authority, or in the site WAP or permit, will be used.
- For drinking water compliance a method will be selected from those specified in 40 CFR Part 141, or the applicable state regulations.
- For NPDES permits, the method will be selected from those specified in 40 CFR Part 136.

If the end use of the data is not regulatory or if the regulatory authority does not specify a method, the laboratory will determine the customer needs in terms of reporting level (e.g., LOD, LOQ), bias (e.g., screening versus quantitative) and the laboratory capabilities and capacity. Based on these criteria, the laboratory will select an appropriate method based on the following hierarchy:

- Resources from published in regional, national or international standards
- Methods published by other technical organizations such as ASTM, Standard Methods or AOAC
- Methods develop by the instrument manufacturer
- Laboratory –developed methods.

All communications between the laboratory and the customer are documented.

22.2 Laboratory-Developed Methods

If the laboratory develops a method, the process of designing and validating the method is carefully planned and documented. All personnel involved in the method design, development and implementation will be in constant communication during all stages of development.

22.3 Method Validation

Validation is the confirmation, by examination and objective evidence, that the particular requirements for a specific intended use are fulfilled.

At a minimum, reference methods are validated by performing an initial demonstration of capability. Additional requirements are discussed for each technology.

All methods that are not reference methods are validated before use. The validation is designed so that the laboratory can demonstrate that the method is appropriate for its intended use. All records (e.g., planning, method procedure, raw data and data analysis) shall be retained while the method is in use. Based on the validation process, the laboratory will make a statement on the method SOP of the intended use requirements and whether or not the validated method meets the use requirements.

Method validation and Demonstration of Capability procedures can be found in Appendix I – "Chemistry".

22.4 Estimation of Analytical Uncertainty

Analytical Uncertainty: A subset of Measurement Uncertainty that includes all laboratory activities performed as part of the analysis.

When requested, the laboratory will provide an estimate of the analytical uncertainty as determined by quality control measurement data such as the bias and precision of the analytes in the stated method.

22.5 Control of Data

To ensure that data are protected from inadvertent changes or unintentional destruction, the laboratory uses procedures to check calculations and data transfers (both manual and automated).

22.5.1 Computer and Electronic Data Requirements

The laboratory assures that computers, user-developed computer software, automated equipment, or microprocessors used for the acquisition, processing, recording, reporting, storage, or retrieval of environmental test data are:

- documented in sufficient detail and validated as being adequate for use;
- protected for integrity and confidentiality of data entry or collection, data storage, data transmission and data processing;
- maintained to ensure proper functioning and are provided with the environmental and operating conditions necessary to maintain the integrity of environmental test data; and
- held secure including the prevention of unauthorized access to, and the unauthorized amendment of, computer records. Data archive security is addressed in Section 16 – "Control of Records" and building security is addressed in Section 21- "Accommodations and Environmental Conditions".

When the laboratory uses spreadsheets to calculate final results from the raw data, before reporting any results derived from these programs, the laboratory shall use the following process to validate the underlying calculations.

- Testing each set of cells used for input of the data as well as cells used for calculations is done by comparing the results of the spreadsheet with manual calculated data;
- Results of this verification are noted in a logbook and maintained according to Section 16 – "Control of Records".
- Periodically, but at least annually, 5% of the calculated results are verified.

- If any changes are made to the spreadsheet, the laboratory revalidates the entire system before reporting results.

- Algorithms used to reduce raw data to a reported value will be verified upon first use and annually thereafter to ensure that the process produces accurate results.

- After the spreadsheet and algorithms are validated, the calculations are protected from inadvertent manipulations.

Data from all electronic media are backed up daily to ensure that data are not lost. The backup procedure is maintained by the IT Department. Back-up copies are stored by the IT Department.

22.5.2 Data Reduction

The analyst calculates final results from raw data or appropriate computer programs provide the results in a reportable format. The test methods provide required concentration units, calculation formulas and any other information required to obtain final analytical results.

The laboratory has manual integration procedures that must be followed when integrating peaks during data reduction. Reference the Manual Integration training presentation found in CORNERSTONE.

All raw data must be retained in a logbook or electronically (when applicable) and as described in Section 16 – "Control of Records".

22.5.3 Data Review Procedures

Data review procedures are located in Section 23.4 – "Data Review".

Section 23

CALIBRATION REQUIREMENTS
(TNI V1:M2 – Sect 5.5 and Section 1.7 of Technical Modules TNI V1:M 3-7)

23.1 General Equipment Requirements

The laboratory provides all the necessary equipment required for the correct performance of the scope of environmental testing performed by the laboratory.

All equipment and software used for testing and sampling are capable of achieving the accuracy required for complying with the specifications of the environmental test methods as specified in the laboratory SOPs.

Equipment is operated only by authorized and trained personnel (see Section 20 – "Personnel").

The laboratory has procedures for the use, maintenance, handling, and storage of equipment and they are readily available to laboratory personnel. Manuals provided by the manufacturer of the equipment provide information on use, maintenance, handling and storage of the equipment. The laboratory maintains an equipment table or SOP that includes additional information on storage location. The laboratory also has a table or SOP to summarize planned equipment maintenance. These procedures ensure proper functioning of the equipment and prevent contamination or deterioration.

All equipment is calibrated or verified before being placed in use to ensure that it meets laboratory specifications and relevant standard specifications. Calibration and verification records are keep in a logbook with the instrument in the work area or stored electronically when applicable. Archived records are filed by The Technical Manager in accordance with Section 16 – "Control of Records".

Test equipment, including hardware and software, are safeguarded from adjustments that would invalidate the test result measurements by limiting access to the equipment and using password protection where possible (see Section 22.5 – "Control of Data").

Equipment that has been subject to overloading, mishandling, given suspect results, or shown to be defective or outside specifications is taken out of service. The equipment is isolated to prevent its use or clearly labeled as being out of service until it has been shown to function properly. If it is shown that previous tests are affected, then procedures for nonconforming work are followed and results are documented (see Section 12 – "Control of Nonconforming Environmental Testing Work" and Section 14 – "Corrective Action").

No equipment is used outside of the permanent control of the laboratory.

Each item of equipment and software used for testing and significant to the results is uniquely identified. Records of equipment and software are maintained. This information includes the following:

a) identity of the equipment and its software;

b) manufacturer's name, type identification, serial number or other unique identifier;

c) checks that equipment complies with specifications of applicable tests;

d) current location;

e) manufacturer's instructions, if available, or a reference to their location;

f) dates, results and copies of reports and certificates of all calibrations, adjustments, acceptance criteria, and the due date of next calibration;

g) maintenance plan where appropriate, and maintenance carried out to date; documentation on all routine and non-routine maintenance activities and reference material verifications;

h) any damage, malfunction, modification or repair to the equipment;

i) date received and date placed into service (if available); and

j) condition when received, if available (new, used, reconditioned).

The Technical Manager maintains a site-specific electronic spreadsheet similar the one below and ensures that personnel are properly trained.

Table 23-1 Laboratory Equipment

Name - Unique Identifier	Location	Brand/Model	Serial Number	<Date Placed into Service>
Balance - 1				
Balance - 2				
GC - 1				
GC - 2				
Class 1 Weight				
NIST Thermometer				
pH meter				
pH probe				
BOD incubator				
DO meter				
DO probe				
ISE				
Air Oven				
Furnace				
Incubator				
Etc …				

23.2 Support Equipment

Support Equipment includes, but is not limited to: balances, ovens, refrigerators, freezers, incubators, water baths, temperature measuring devices, volumetric dispensing devices, and thermal/pressure sample preparation devices.

All support equipment is maintained in proper working order. Records are kept for all repair and maintenance activities, including service calls.

All raw data records are retained to document equipment performance. These records include logbooks, data sheets, or equipment computer files.

23.2.1 Support Equipment Maintenance

Regular maintenance of support equipment, such as balances and fume hoods is conducted at least annually.

Maintenance on other support equipment, such as ovens, refrigerators, and thermometers is conducted on an as needed basis.

Records of maintenance to support equipment are documented in Instrument Maintenance Logs. Each piece of support equipment does not necessarily have its *own* logbook but must be documented. Maintenance logbooks may be shared with equipment that is housed in the same laboratory area.

The Technical Manager maintains a site-specific electronic spreadsheet similar the one below and ensures that personnel are properly trained.

Table 23-2 Summary of Support Equipment Calibration And Maintenance

Instrument	Activity	Frequency	Documentation
Balance	1. Clean 2. Check alignment 3. Service Contract	1. Before use 2. Before use 3. Annually	Worksheet/log book Post annual service date on balance
ASTM Class 1Weights	1. Only use for the intended purpose 2. Use plastic forceps to handle 3. Keep in case 4. Re-calibrate	1. Every year if weight is used for daily checks. 2. Every 5 years if weight is used only to check working standard weights which are then used for the daily checks.	Keep certificate
Working Standard Weights	1. Used to check balances before their use.	Every 6 months.	Worksheet / logbook

Table 23-2 Summary of Support Equipment Calibration And Maintenance			
Instrument	**Activity**	**Frequency**	**Documentation**
NIST Traceable Thermometer	Accuracy determined by A2LA-accredited weights and measurement laboratory.	Every 5 years.	Keep certificate
Thermometers: 1. Glass and electronic 2. Dial thermometers 3. IR thermometer	Check at the temperature used, against a reference NIST certified thermometer	1. Annually for glass and electronic 2. Quarterly for dial and IR thermometers	Calibration factor and date of calibration on thermometer and worksheet/log book
pH electrometers	Calibration: 1. pH buffer aliquot are used only once 2. Buffers used for calibration will bracket the pH of the media, reagent, or sample tested.	Before use	Worksheet/log book
pH probe	Maintenance: Use manufacturer's specifications	As needed	Worksheet/log book
photometer	1. Keep cells clean 2. Service contract. Check wavelength settings with color standards	Annually	Post service date on balance
Automatic or digital type pipettes	Calibrate for accuracy and precision using reagent water and analytical balance	Quarterly	Worksheet/logbook
Refrigerators, Freezers, and BOD incubators	1. Thermometers are immersed in liquid to the appropriate immersion line 2. The thermometers are graduated in increments of 1°C or less	Temperatures are recorded each day in use	Worksheet/log book
Traceable Clock	Accuracy determined by A2LA-accredited weights and measurement laboratory.		Certificate of Analysis
Sterilizer	1. Use a maximum-temperature-registering thermometer or a continuous recording device. 2. Use spore strips or ampoules. 3. In house maintenance of	1. Each cycle 2. One sterilizing cycle per month. 3. Once per year	Worksheet/log book

Table 23-2 Summary of Support Equipment Calibration And Maintenance			
Instrument	**Activity**	**Frequency**	**Documentation**
	autoclave or service contract. 4. Hot air ovens must maintain a stable temperature of 170°C - 180°C for at least two hours		
Microbiological incubators, and water baths	1. Thermometers in each unit are immersed in liquid to the appropriate immersion line 2. The thermometers will be graduated in increments of 0.5°C (0.2°C increments for tests which are incubated at 44.5°C) or less	Temperature of incubators and water baths will be recorded twice a day for each day in use with readings separated by at least four hours	Worksheet/log book
DO electrometer	Calibrate as specified in SOP	Before use	Worksheet/log book
DO probe	Maintenance as specified by manufacturer	As needed	Worksheet/log book
Etc…			

23.2.2 Support Equipment Calibration

The Technical Manager maintains a site-specific electronic spreadsheet detailing the calibration requires for analytical support equipment. The spreadsheet is similar to Tables 23-3 and 23-4 below and relevant to their scope of activities. The Technical Manager ensures that personnel are properly trained.

All support equipment is calibrated or verified annually over the entire range of use using NIST traceable references where available. The results of the support equipment calibration is within the specifications given in the site-specific spreadsheet similar to Tables 23-3 and 23-4 below. If the results vary, then; (1) the equipment is removed from service until repaired, or (2) records are maintained of correction factors to correct all measurements. If correction factors are used this information is clearly marked on or near the equipment.

Support equipment such as balances, ovens, refrigerators, freezers, and water baths are verified with a NIST traceable reference if available, each day prior to use, to ensure operation is within the expected range for the application for which the equipment is to be used. Acceptance criteria is found in the site-specific spreadsheet similar to Tables 23-3 and 23-4 below.

Volumetric dispensing devices (except Class A glassware and Glass microliter syringes) are checked for accuracy on a quarterly basis.

Mass reference standards (weights) are recertified every five years.

Table 23-3 Calibration Acceptance Criteria for Support Equipment

Equipment	Type of Calibration/ Number of Standards	Frequency	Acceptance Limits	Corrective Action
Analytical Balance	Accuracy determined using A2LA-accredited NIST weights. Minimum of 2 standards bracketing the weight of interest. Inspected and calibrated by A2LA accredited person annually. A second annual inspection and calibration by same firm.	Daily	± 0.2%	Clean, check level, insure lack of drafts, and that unit is warmed up, recheck. If fails, call service.
Thermometer	Against NIST-traceable thermometer	Yearly at appropriate temperature range for intended use	± 1.2°C	Replace
Minimum-Maximum Thermometers	Against NIST-traceable thermometer	Yearly	± 1.5°C	Replace
InfraRed Temperature Guns	Against NIST-traceable thermometer	Quarterly at appropriate temperature range for intended use	± 1.5°C	Repair/replace
Volumetric Dispensing Devices (Eppendorf ® pipette, automatic dilutor or dispensing devices)	One delivery by weight. Using DI water, dispense into tared vessel. Record weight with device ID number.	Quarterly	± 2% Calculate accuracy by dividing weight by stated volume times 100 for percent.	Adjust. Replace.
Etc…				

Table 23-4 Acceptance Criteria for Support Equipment

Equipment Identification	Use	Acceptance Criteria
INC 1	Method 1601/1602, transfer cultures	36°C ± 1.0°C
INC 2	Actinomycetes, Clostridium	28°C ± 1.0°C, 42°C ± 0.5°C
INC 3	Hybridization oven	51°C ± 1.0°C, 80°C ± 1.0°C
INC 4	Fungi, general use	36°C ± 1°C

Table 23-4 Acceptance Criteria for Support Equipment		
Equipment Identification	**Use**	**Acceptance Criteria**
W/B 1	Melt and temper agar	48°C ± 3.0°C
W/B 2	Method 1602, thaw hosts	37°C ± 1.0°C, 48°C ± 3.0°C
W/B 3	Grow hosts for Method 1601/ 1602	36°C ± 1.0°C
W/B 4	Shaking bath for hybridization	51°C ± 0.2°C
REFRIG 1	Sample storage	1 to 6°C
REFRIG 2	Reagent/ media storage	1 to 6°C
REFRIG 3	Reagent storage	1 to 6°C
FREEZ 1	PCR reagents	-20°C to -30°C
FREEZ 2	Ice packs, reagent storage	-20°C to -30°C
FREEZ 3	Host stocks, sewage filtrate, virus stocks, samples	Shelf 1 -70°C ± 10°C Shelf 2 -70°C ± 10°C Shelf 3 -70°C ± 10°C Shelf 4 -50°C ± 10°C Shelf 5 -50°C ± 10°C
FREEZ 4	Sample storage	-70°C ± 10°C
FREEZ 5	Probes, hybridization reagents	-20°C to -30°C
FIELD INCUBATORS	Membrane filtration	35°C ± 1.0°C, 44.5°C ± 0.2°C

23.3 Analytical Equipment

23.3.1 Maintenance for Analytical Equipment

All equipment is properly maintained, inspected, and cleaned.

Maintenance of analytical instruments and other equipment may include regularly scheduled preventive maintenance or maintenance on an as-needed basis. Instrument malfunction is documented in Instrument Maintenance Logs, which become part of the laboratory's permanent records. A description of what was done to repair the malfunction is documented in the log. A copy of repair bills may also be placed in the logbook if it has sufficient detail to explain the maintenance performed. Proof of return to control, which may include a statement on the performance of a QC sample, are also documented in the log.

The Technical Manager maintains a site-specific analytical equipment maintenance log (or logbooks) similar to Table 23-5 below. The Technical Manager ensures that personnel are properly trained in maintenance procedures.

Table 23-5 Analytical Equipment Maintenance		
Instrument	**Procedure**	**Frequency**
AA (Graphite Furnace)	Clean lens and furnace head Replace windows Check or change cuvette Check & drain compressor drain Clean atomizer cell/furnace hood Nebulizer cleaned/dried Check/change marble stones Clean filters Change graphite tube/platform Empty waste container Remove carbon tube and check wear Check sample introduction probe	Daily As required Daily Daily Daily Weekly or as required Weekly Weekly As required Daily Daily Daily
Leeman Mercury Analyzer	Check tubing for wear Fill rinse tank with 10% HCl Insert clean drying tube filled with Magnesium Perchlorate Fill reductant bottle with 10% Stannous Chloride	Daily Daily Daily Daily
ICP	Check pump tubing Check liquid argon supply Check fluid level in waste container Check filters Clean or replace filters Check torch Check sample spray chamber for debris Clean and align nebulizer Check entrance slit for debris Change printer ribbon Replace pump tubing	Daily Daily Daily Weekly As required Daily Monthly Monthly Monthly As required As required
UV-Vis Spectrophotometer	Clean ambient flow cell Precision check/alignment of flow cell Wavelength verification check	As required As required Semi-annually
Auto Analyzers	Clean sampler Check all tubing Clean inside of colorimeter Record manifold temperature Clean pump well and pump rollers Clean wash fluid receptacle Oil rollers/chains/side rails Clean optics and cells	Daily Daily Daily Daily Quarterly Weekly Weekly Quarterly
IR Spectrophotometer	Clean cell Check/adjust cell alignment	Annually As required
Hewlett Packard GC/MS	Ion gauge tube degassing Pump oil-level check	As required Monthly

Table 23-5 Analytical Equipment Maintenance		
Instrument	**Procedure**	**Frequency**
	Pump oil changing	Semi-annually
	Analyzer bake-out	As required
	Analyzer cleaning	As required
	Resolution adjustment	As required
	COMPUTER SYSTEM AND PRINTER:	
	Air filter cleaning	As required
	Change data system air filter	As required
	Printer head carriage lubrication	As required
	Paper sprocket cleaning	As required
	Drive belt lubrication	As required
Gas Chromatograph	Compare standard response to previous day or since last initial calibration	Daily
	Check carrier gas flow rate in column	Daily via use of known compound retention
	Check temp. of detector, inlet, column oven	Daily
	Septum replacement	As required
	Glass wool replacement	As required
	Check system for gas leaks with SNOOP	W/cylinder change as req'd
	Check for loose/fray wires and insulation	Monthly
	Bake injector/column	As required
	Change/remove sections of guard column	As required
	Replace connectors/liners	As required
	Change/replace column(s)	As required
Electron Capture Detector (ECD)	Detector wipe test (Ni-63)	Semi-annually
	Detector cleaning	As required
Flame Ionization Detector (FID)	Detector cleaning	As required
Hall 700A Detector Hall 1000 Detector	Electrolyte change	As required by noise
	Reactor tube/teflon connecting tube change	As required
	Clean detector cell	As required
Photoionization Detector (PID)	Change O-rings	As required
	Clean lamp window	As required
HPLC	Change guard columns	As required
	Change lamps	As required
	Change pump seals	Semi-annually or as req'd
	Replace tubing	As required
	Change fuses in power supply	As required
	Filter all samples and solvents	Daily
	Change autosampler rotor/stator	As required
Balances	Class "1" traceable weight check	Daily, when used
	Clean pan and check if level	Daily
	Field service	At least annually
Conductivity Meter	0.01 M KCl calibration	Daily

Table 23-5 Analytical Equipment Maintenance		
Instrument	**Procedure**	**Frequency**
	Conductivity cell cleaning	As required
Turbidimeter	Check light bulb	Daily, when used
Deionized/Distilled Water	Check conductivity Check deionizer light Monitor for VOA's System cleaning Replace cartridge & large mixed bed resins	Daily Daily Daily As required As required
Drying Ovens	Temperature monitoring Temperature adjustments	Daily As required
Refrigerators/ Freezers	Temperature monitoring Warning system checked Temperature adjustment Defrosting/cleaning	Daily Monthly As required As required
Vacuum Pumps/ Air Compressor	Drained Belts checked Lubricated	Weekly Monthly Semi-annually
pH/Specific Ion Meter	Calibration/check slope Clean electrode	Daily As required
BOD Incubator	Temperature monitoring Coil and incubator cleaning	Daily Monthly
Centrifuge	Check brushes and bearings	Every 6 months or as needed
Water Baths	Temperature monitoring Water replaced	Daily Monthly or as needed
Etc…		

23.3.2 Instrument Calibration

Information on instrument calibration can be found in Appendix I – "Chemistry".

Initial instrument calibration and continuing instrument calibration verification are an important part of ensuring data of known and documented quality. If more stringent calibration requirements are included in a mandated method or by regulation, those calibration requirements override any requirements outlined here or in laboratory SOPs. Generally, procedures and criteria regarding instrument calibrations are provided in the test methods SOP or WI.

Section 24

MEASUREMENT TRACEABILITY
(TNI V1:M2 – Section 5.6)

Measurement quality assurance comes in part from traceability of standards to certified materials.

All equipment used affecting the quality of test results are calibrated prior to being put into service and on a continuing basis (see Section 23 – "Calibration Requirements"). These calibrations are traceable to national standards of measurement where available.

If traceability of measurements to SI units is not possible or not relevant, evidence for correlation of results through interlaboratory comparisons, proficiency testing, or independent analysis is provided.

24.1 Reference Standards

Reference standards are standards of the highest quality available at a given location, from which measurements are derived.

Reference Standards, such as ASTM Class 1 weights, are used for calibration only and for no other purpose unless it is shown that their performance as reference standards will not be invalidated.

Reference standards, such as ASTM Class 1 weights, are calibrated by an entity that can provide traceability to national or international standards. The following reference standards are sent out to be calibrated to a national standard as indicated in Section 23 – "Calibration Requirements":

- Class 1 weights
- NIST traceable reference thermometers
- Traceable clocks

24.2 Reference Materials

Reference materials are substances that have concentrations that are sufficiently well established to use for calibration or as a frame of reference.

Reference materials, where commercially available, are traceable to national standards of measurement, or to Certified Reference Materials, usually by a Certificate of Analysis.

Purchased reference materials require a Certificate of Analysis where available. If a reference material cannot be purchased with a Certificate of Analysis, it is verified by analysis and comparison to a certified reference material and/or demonstration of capability for characterization.

Internal reference materials, such as working standards or intermediate stock solutions, are checked as far as is technically and economically practical. Working standards or intermediate stock solutions are checked against a second source at first time of use. When a second source is not available, a vendor certified different lot is accepted as a second source. In most cases, the analysis of an Initial Calibration Verification (ICV) standard or a Laboratory Control Sample (LCS) can be used as a second source confirmation. Working standards and intermediate stock solutions are given expiration dates. These standards are used up or disposed of by the expiration date.

Additional working standards such as working class weights or internal thermometers are checked using the frequency summarized in the site-specific table similar to Table 23-3 which is referenced in Section 23 – "Calibration Requirements".

24.3 Transport and Storage of Reference Standards and Materials

The laboratory handles and transports reference standards and materials in a manner that protects the integrity of the materials. Reference standard and material integrity is protected by separation from incompatible materials and/or minimizing exposure to degrading environments or materials.

Reference standards and materials are stored according to manufacturer's recommendations, method SOP requirements and separately from samples. The Technical Manager maintains a site-specific electronic spreadsheet similar the one below and ensures that personnel are properly trained.

Table 24-1 Standard Storage and Preparation

Instrument	Stock Storage	Preparation	Intermediate Stock Solution or Working Standard Storage	Frequency
ICP	Room Temperature	Working Standards from Stock	Room Temperature	Daily
GC – Volatile Organics	Freezer (-10°C)	Working Standards from Stock	Refrigerate	Monthly; Gas, Weekly
Etc…				

24.4 Labeling of Reference Standards, Reagents, and Reference Materials

The laboratory has procedures for purchase, receipt and storage of standards, reagents and reference materials. Purchase procedures are described in Section 9 – "Purchasing Services and Supplies".

Reagent quality is verified prior to use and during routine blank analysis.

24.4.1 Stock Standards, Reagents, Reference Materials and Media

Records for all standards, reagents, reference materials, and media include:

- the manufacturer/vendor name (or traceability to purchased stocks or neat compounds)
- the manufacturer's Certificate of Analysis or purity (if supplied)
- the date of receipt
- recommended storage conditions

The Technical Manager maintains a site-specific procedure that includes reference to an electronic spreadsheet or logbook prescribing a unique ID number to stock standards, reagents, reference materials and/or media. The procedure for determining a unique ID number includes tracking by lot number.

If the original container does not have an expiration date provided by the manufacturer or vendor it is not required to be labeled with an expiration date. If an expiration date is provided, it must be labeled with the expiration date.

In methods where the purity of reagents is not specified, analytical reagent grade is used. If the purity is specified, that is the minimum acceptable grade. Purity is verified and documented according to Section 9 – "Purchasing Services and Supplies".

24.4.2 Prepared Standards, Reagents, Reference Materials and Media

Records for standards, reagents, reference materials, and media preparation include:

- traceability to purchased stock or neat compounds
- reference to the method of preparation
- date of preparation
- an expiration date after which the material shall not be used (unless its reliability is verified by the laboratory)
- preparer's initials (if prepared)

All containers of prepared standards, reagents, or materials are labeled with a unique ID and an expiration date. The Technical Manager maintains a site-specific procedure for assigning unique ID numbers which includes reference to the stock ID number. The procedure could include information on concentration and storage conditions and shall ensure that each container is uniquely identified.

Prepared reagents are verified to meet the requirements of the test method through internal QC measures.

Section 25

COLLECTION OF SAMPLES
(TNI V1:M2 – Section 5.7)

US Ecology does not provide sampling services. The laboratory's responsibility in the sample collection process lies in supplying the sampler with the necessary coolers, reagent water, sample containers, preservatives, sample labels, custody seals, COC forms, ice, and packing materials required to properly preserve, pack, and ship samples to the laboratory.

Site-specific sampling program may be found in the Facility Waste Analysis Plan and/or permit.

25.1 Sampling Containers

The laboratory offers clean sampling containers for use by clients. The containers are purchased from a manufacture who provides a certificate of conformance to EPA "Specifications and Guidance for Contaminant-Free Sample Containers". The certificate of conformance is maintained on-file according to Section 16 – "Control of Records".

25.1.1 Preparing Container Orders

Containers (containing any required preservatives) are provided to the client upon request.

25.1.2 Sampling Containers, Preservation Requirements, Holding Times

Sampling container, preservation and holding time requirements can be found in Table 25-1 or in the test method SOP.

If preservation or holding time requirements are not met, the procedures in Section 12 – "Control of Nonconforming Environmental Testing Work" are followed.

Table 25-1 Summary of Sampling Container, Preservation and Holding Time Requirements

Parameter Group	Approved Method	Container (Per Sample)	Dechlorinate / Preservation	Holding Time
Water				
Asbestos & Dioxin	Subcontracted	2 x 1 L Amber Glass	Cool 4°C	48 hr/ 7 day
TOX (Total Organic Halogens)	Subcontracted	250 mL Amber Glass	H_2SO_4 to pH <2, Cool 4°C	14 Days
Radiologicals (GA, RA 226, RA 228)	Subcontracted	2 x 1 L HDPE	HNO3 to pH <2	6 Months
TCLP / SPLP	1311, 1312	1 x 1 L Glass min.	Cool 4°C	14 Days
Volatile Organics	(THM) 502.2	3 x 40mL VOA Vials	$Na_2S_2O_3$/ZHS/4°C	14 Days
Volatile Organics	601/602	3 x 40mL VOA Vials	$Na_2S_2O_3$/HCL pH<2/ZHS/4°C	14 Days
Volatile Organics	8021	4 x 40mL VOA Vials	$Na_2S_2O_3$/HCL pH<2/ZHS/4°C	14 Days
Volatile Organics	524.2	4 x 40mL VOA Vials	$C_6H_8O_6$/HCL pH<2/ZHS/4°C	14 Days
Volatile Organics	624	4 x 40mL VOA Vials	$C_6H_8O_6$/HCL pH<2/ZHS/4°C	14 Days

Table 25-1 Summary of Sampling Container, Preservation and Holding Time Requirements				
Parameter Group	**Approved Method**	**Container (Per Sample)**	**Dechlorinate / Preservation**	**Holding Time**
Volatile Organics	8260	3 x 40mL VOA Vials	$C_6H_8O_6$/HCL pH<2/ZHS/4°C	14 Days
Pharmaceutical Effluents	1666/524.2	3 x 40mL VOA Vials	$C_6H_8O_6$/HCL pH<2/ZHS/4°C	14 Days
EDB & DBCP	(SOC) 504.1/8011	2 x 40mL VOA Vials	$Na_2S_2O_3$/ZHS/4°C	14 Days
Semi-Volatile Organics	(SOC) 505	2 x 40mL VOA Vials	$Na_2S_2O_3$/ZHS/4°C	7 Days
Nitrogen/Phosphorus Pesticides	(SOC) 507	1 x 1 L Amber Glass	$Na_2S_2O_3$/Cool 4°C	14 Days
Chlorinated Herbicides	(SOC) 515.4	125 mL Amber Glass	$Na_2S_2O_3$/Cool 4°C	14 Days
Endothall	(SOC) 548.1	1 x 250 mL Amber Glass	$Na_2S_2O_3$/Cool 4°C	7 Days
Glyphosate HPLC	(SOC) 547	1 x 250 mL Amber Glass	$Na_2S_2O_3$/Cool 4°C	14 Days
Diquat HPLC	(SOC) 549.2	1 x 250 mL HDPE Amber	Cool 4°C, Dark	7 Days
Phthalate/Adipate/Benzo(a)pyrene	(SOC) 525.2	1 x 1 L Amber Glass	HCL to pH<2	14 Days
Haloacetic Acids	(HAA) 552.2	1 x 250 mL Amber Glass	NH_4Cl	14 Days
Pesticides	608	1 x 1 L Amber Glass	Cool 4°C	7 Days
Herbicides	615/8151	1 x 1 L Amber Glass	Cool 4°C	7 Days
Organo Phosphorus Pesticides	8141	1 x 1 L Amber Glass	Cool 4°C	7 Days
Base Neutral Acids	625/8270	1 x 1 L Amber Glass	Cool 4°C	7 Days
Carbamates, HPLC	(SOC) 531.1	2 x 40 mL Vials	Chloroacetic Acid to pH<3	28 Days
Gasoline Range Organics	8015	2 x 40 mL VOA Vials	HCL to pH<2, Cool 4°C	14 Days
Diesel Range Organics	8015	1 x 1 L Amber Glass	HCL to pH<2, Cool 4°C	7 Days
Petroleum Range Organics	FL-PRO	1 x 1 L Amber Glass	HCL to pH<2, Cool 4°C	7 Days
PCBs in Oil	8082	1 x 40 mL VOA (min 10 mL)	N/A	N/A
Soils				
TCLP / SPLP	1311, 1312	100 g min	Cool 4°C	14 Days
Volatile Organic Compounds	8021/8260	4 x 40 mL VOA Vials(5g)	MeOH/DI Water	14 Days
Semivolatile Organic Compounds	8270	8 oz Glass	Cool 4°C	14 Days
PCBs/Pesticides/Herbicides	8082/8081/8151	8 oz Glass	Cool 4°C	14 Days
FL-PRO	FL-PRO	100 g Glass	Cool 4°C	14 Days
Sludge Analysis	62-640/503	500mL HDPE	Cool 4°C	ASAP

Abbreviations:
HCL= Hydrochloric Acid
HNO_3= Nitric Acid
$Na_2S_2O_3$ = Sodium Thiosulfate
ZHS = Zero Head Space
H_2SO_4= Sulfuric Acid
NaOH= Sodium Hydroxide
$C_6H_8O_6$ = Ascorbic Acid
MeOH = Methanol
NH_4Cl = Ammonium Chloride
HDPE = High Density Polyethylene

25.2 Sampling Plan

The laboratory uses sampling plans provided by clients or prepared in consultation with the client. The sampling plan may be found in the site-specific Waste Analysis Plan and/or permit. The plan must include any factors that must be controlled to ensure the validity of the test. Sampling plans and written sampling procedures are used for sampling substances, materials or products for testing. The plan and procedures are made available at the sampling location.

The laboratory's procedures for dealing with nonconformances are used when the client requests any deviations from the sampling plan or sampling procedures. The requests are documented and included in the final test report.

25.3 Sampling Records

The following relevant sampling data are recorded: sampling procedure used, the date and time of sampling, the identification of the sampler, environmental conditions (if relevant), the sampling location, and the statistics upon which the sampling procedures are based.

Section 26

HANDLING SAMPLES AND TEST ITEMS
(TNI V1:M2 – Section 5.8 and Section 1.7 of Technical Modules TNI V1:M 3-7)

26.1 Sample Receipt

When samples are received at the laboratory, chain-of-custody is reviewed, condition is documented, samples are given unique identifiers, and they are logged into the sample tracking system.

26.1.1 Chain of Custody

The chain of custody or sample submission sheets from the field are reviewed. This documentation is completed in the field and provides a written record of the handling of the samples from the time of collection until they are received at the laboratory. Section 25 – "Collection of Samples" outlines what information is needed on this record. The chain of custody form also provides information on what type of testing is being requested and can act as an order for laboratory services in the absence of a formal contract. An example chain of custody form can be found in Figure 26-1. Chain of custody and any additional records received at the time of sample submission are scanned into the corporate waste approvals database. Original records are maintained by the laboratory in accordance to Section 16 – "Control of Records".

26.1.1.1 Legal Chain of Custody

The laboratory does not accept samples identified for legal/evidentiary purposes.

26.2 Sample Acceptance

Procedures for opening shipping containers and examining samples are provided in QES-OP-021-ALL Sample Shipping and in Figure 26-2 Example Sample Acceptance Policy (SAP).

The laboratory has a sample acceptance policy that is made available to sample collection personnel. An example is provided in Figure 26-2. It emphasizes the need for use of water resistant ink, providing proper documentation (to include sample ID, location, date and time of collection, collector's name, preservation type, sample type and any special remarks about the sample), labeling of sample containers to include a unique sample ID, use of appropriate containers, adherence to holding times, and sample volume requirements. In addition the laboratory has nonconformance/corrective action procedures to handle samples that don't meet the requirements above or show signs of damage, contamination or inadequate preservation. Data will be appropriately qualified where samples are reported that do not meet sample acceptance requirements.

The laboratory checks samples for the conditions above where appropriate, to evaluate sample acceptance. Criteria regarding preservation, holding time and sample volume requirements can be found in Section 25- "Collection of Samples" Table 25-1 or the test method SOP. If these conditions are not met, the client is contacted by a Client Services representative prior to any further processing, then 1) the sample is rejected as agreed with the client, 2) the decision to proceed is documented and agreed upon with the client, 3) the condition is noted on the Chain of Custody form and/or lab receipt documents, and 4) the data are qualified in the report.

26.2.1 Preservation Checks

The following preservation checks are performed and documented upon receipt:

26.2.1.1 *Thermal preservation:*

a) For temperature preservation, the temperature must be within ± 2°C of the required temperature unless otherwise stated. For samples that require preservation at 4°C, the acceptable range is from just above freezing to 6°C.

b) Samples that are delivered to the lab the same day as they are collected are likely not to have reached a fully chilled temperature. This is acceptable if the samples were received on ice and the chilling process has begun.

c) Record on the receipt form if ice is present and the temperature.

Chlorine checks:

d) Laboratories that receive samples from potable water supplies (including source water) that have a demonstrated history of acceptable preservation may check a sample from each client at a frequency of once per month if:

i) the laboratory can show that the received sample containers are from their laboratory;

ii) sufficient sodium thiosulfate was in each container before sample collection to neutralize at minimum 5 mg/l of chlorine for drinking water and 15 mg/l of chlorine for wastewater samples;

iii) one container from each batch of laboratory prepared containers or lot of purchased ready-to-use containers is checked to ensure efficacy of the sodium thiosulfate to 5 mg/l chlorine or 15 mg/l chlorine as appropriate and the check is documented;

iv) chlorine residual is checked in the field and actual concentration is documented with sample submission.

pH checks:

e) The pH of samples requiring acid/base preservation is checked upon sample receipt or upon initiation of analysis.

26.3 Sample Identification

Samples, including subsamples, extracts and digestates, are uniquely identified in a permanent chronological record to prevent mix-up and to document receipt of all sample containers. The sample receipt log may be an electronic spreadsheet or logbook.

The Technical Manager maintains a site-specific procedure for sample identification that includes reference to the sample receipt log. Samples are assigned sequential numbers that reference more detailed information kept in the sample receipt log.

The following information is included in the sample receipt log:

- Client or project name
- Date and time of receipt at lab
- Unique laboratory identification number
- Signature or initials of person making the entries

In addition, the following information is maintained and linked to the log-in record:

- Date and time of sampling linked to the date and time of laboratory receipt.
- Unique field identification number linked to the laboratory sample ID
- Analyses requested (including applicable approved method numbers) linked to the laboratory sample ID.
- Comments regarding rejection (if any).

All documentation received regarding the sample, such as memos or chain of custody, are scanned into corporate waste approvals database. Original documents are maintained according to Section 16 – "Control of Records".

26.4 Sample Aliquots / Subsampling

In order for analysis results to be representative of the sample collected in the field, the laboratory has subsampling procedures. The Technical Manager maintains a site-specific procedure for subsampling that includes the requirements of their Waste Analysis Plan and/or permit(s).

26.5 Sample Storage

Storage conditions are monitored for any required criteria, verified, and the verification recorded in logbooks.

Samples that require thermal preservation are stored under refrigeration that is +/-2°C of the specified preservation temperature unless regulatory or method specific criteria require something different. For samples with a specified storage

temperature of 4°C, storage at a temperature above the freezing point of water to 6°C is acceptable.

Samples are held secure, as required. Samples are accessible only to laboratory personnel.

Samples are stored apart from standards, reagents, food or potentially contaminating sources, and such that cross-contamination is minimized. All portions of samples, including extracts, digestates, leachates, or any product of the sample is maintained according to the required conditions.

26.6 Sample Disposal

The Technical Manager maintains a site-specific Sample Retention Policy and SOP. The policy shall indicate that samples are retained until the holding time is exceeded unless other arrangements have been made with the client. Retention times are determined by the Facility EHS Manager and must comply with requirements found in the Waste Analysis Plan and permit(s). For an example, reference LAB-OP-011-OKL Sample Retention.

Samples are disposed of according to Federal, State and local regulations. Procedures are described in the site-specific Sample Retention SOP for the disposal of samples, digestates, leachates, and extracts.

26.7 Sample Transport

Samples that are transported under the responsibility of the laboratory, where necessary, are done so safely and according to storage conditions. This includes moving bottles within the laboratory. Specific safety operations are addressed outside of this document.

Sample shipping procedures are described in QES-OP-021-ALL Sample Shipping.

Figure 26-1

Example Chain-of-Custody

See QES-FM-177-ALL Sample Chain of Custody

Figure 26-2

Example Sample Acceptance Policy

NELAC certification standards require that laboratories establish a Sample Acceptance Policy (SAP) and inform customers of this policy. NELAC further requires that laboratories document any deviations of the SAP on the final report. It is the responsibility of US Ecology to notify customers immediately of any deviations. All correspondence and communication regarding deviations become part of the waste approvals file.

Upon receipt in the laboratory, samples will be inspected according to the following US Ecology SAP criteria:

1. Completeness of COC documentation including but not limited to:
    a. Sample collector
    b. Date and time of collection
    c. Unique sample identification
    d. Sample matrix
    e. Preservation method
    f. Any special notes regarding the sample
2. Integrity of sample label
3. Use of indelible ink
4. Proper sample container types
5. Proper chemical preservation
6. Proper thermal preservation

All samples requiring thermal preservation should arrive at the laboratory packed in ice.

1. Presence of headspace in VOC vials
2. Adherence to holding time
3. Adequate sample volume
4. Integrity of sample containers
5. Integrity and quantity of custody seals, if applicable.

Section 27

QUALITY ASSURANCE FOR ENVIRONMENTAL TESTING*(TNI V1:M1, V1:M2 – Section 5.9 and Section 1.7 of Technical Modules TNI V1:M 3-7)*

US Ecology has procedures for monitoring the validity of the testing it performs. The qualities of test results are recorded in such a way that trends are detectable, and where practicable, are statistically evaluated. To evaluate the quality of test results, the laboratory utilizes certified reference materials, internal quality control using secondary reference materials, control charting, participation in proficiency testing programs, replicate or confirmation analyses, etc.

In addition to procedures for calibration, the laboratory monitors quality control measurements such as blanks, laboratory control samples (LCS), matrix spikes (MS), duplicates, surrogates and internal standards to assess precision and accuracy. Proficiency Testing samples are also analyzed to assess laboratory performance.

Quality control data are analyzed and, when found to be outside pre-defined criteria, action is taken to correct the problem and to prevent incorrect results from being reported. Data associated with quality control data outside of criteria and still deemed reportable will be qualified so the end user of the data may make a determination of the usability of the data - see Section 28 – "Reporting of Results".

27.1 Essential Quality Control Procedures

The quality control procedures specified in test methods are followed by laboratory personnel. The most stringent of control procedures is used in cases where multiple controls are offered. If it is not clear which is the most stringent, that mandated by test method or regulation is followed.

For test methods that do not provide acceptance criteria for an essential quality control element or where no regulatory criteria exist, acceptance criteria are developed and referenced in the test method SOP.

Written procedures to monitor routine quality controls including acceptance criteria are located in the test method SOPs, except where noted, and include such procedures as:

- use of laboratory control samples and blanks to serve as positive and negative controls for chemistry methods;
- use of laboratory control samples to monitor test variability of laboratory results;
- use of calibrations, continuing calibrations, certified reference materials and/or PT samples to monitor accuracy of the test method;
- measures to monitor test method capability, such as limit of detection, limit of quantitation, and/or range of test applicability, such as linearity;

- use of regression analysis, internal/external standards, or statistical analysis to reduce raw data to final results;
- use of reagents and standards of appropriate quality and use of second source materials as appropriate;
- procedures to ensure the selectivity of the test method for its intended use;
- measures to assure constant and consistent test conditions, such as temperature, humidity, rotation speed, etc., when required by test method;
- use of sterility checks for equipment, media and dilution water for microbiology; and
- use of positive and negative culture controls for microbiology.
- For Radiochemistry: Measures to monitor test method capability, such as Minimum Detectable Activity.

27.2 Internal Quality Control Practices

Analytical data generated with QC samples that fall within all prescribed acceptance limits indicate the test method is deemed to be in control.

QC samples that fall outside QC limits indicate the test method are deemed to be out of control (nonconforming) and that corrective action is required and/or that the data are qualified (see Section 12 – "Control of Nonconforming Environmental Testing Work" and Section 14 - "Corrective Actions").

Detailed QC procedures and QC limits are included in test method standard operating procedures (SOPs).

All QC measures are assessed and evaluated on an on-going basis, so that trends are detected.

27.2.1 General Controls

The following general controls are used:

27.2.1.1 Positive and Negative Controls such as:

a) Blanks (negative)
b) Laboratory control sample (positive)

27.2.1.2 Selectivity is assured through:

a) absolute and relative retention times in chromatographic analyses;
b) two-column confirmation when using non-specific detectors;
c) use of acceptance criteria for mass-spectral tuning (found in test method SOPs);
d) use of the correct method according to its scope assessed during method validation; and

e) use of reference cultures (positive and negative) from a recognized manufacturer (where applicable).

27.2.1.3 Consistency, Variability, Repeatability, and Accuracy are assured through:

a) proper installation and operation of instruments according to manufacturer's recommendations or according to the processes used during method validation;

b) monitoring and controlling environmental conditions (temperature, access, proximity to potential contaminants);

c) selection and use of reagents and standards of appropriate quality; and

d) cleaning glassware appropriate to the level required by the analysis as demonstrated with method blanks or purchasing containers that are certified clean.

e) For microbiology, glassware care includes use of borosilicate glassware, use of detergents designed for laboratory use, testing each day for alkaline or acid residue with bromothymol blue, and conduct of the Inhibitory Residue test when the detergent is changed or annually, whichever is more frequent.

f) following SOPs and documenting any deviation, assessing for impact, and treating data appropriately;

g) testing to define the variability and/or repeatability of the laboratory results, such as replicates;

h) use of measures to assure the accuracy of the test method, including calibration and/or continuing calibrations, use of certified reference materials, proficiency test samples, or other measures; and

i) use of duplicate plate counts on positive samples (microbiology only).

27.2.1.4 Test Method Capability (also see Section 22 – "Environmental Methods and Method Validation") is assured through:

a) establishment of the limit of detection where appropriate;

b) establishment of the limit of quantitation or reporting level; and/or

c) establishment of the range of applicability such as linearity.

27.2.1.5 Data reduction is assured to be accurate by:

a) selection of appropriate formulae to reduce raw data to final results such as regression;

b) following specific procedures for data reduction such as manual integration procedures;

c) periodic review of data reduction processes to assure applicability;

d) microbiological calculations, data reduction, and statistical interpretations specified by each test method; and

27.2.1.6 Sample Specific controls are used to evaluate the effect of sample matrix on the performance of the selected analytical method (not a measure of laboratory performance):

Examples:

- Matrix Spike and Matrix Spike Duplicate (MS/MSD)
- Surrogate Spikes
- Sample Duplicates

27.2.1.7 The following tables summarize the key elements of a quality control system for a laboratory performing chemistry ~~and microbiology~~ testing.

Table 27-1 Essential Quality Control Elements for Chemistry

Item	Frequency	Acceptance Criteria	Corrective action
Negative Control (Method Blank)	1/batch	Method specific or reporting limit	Qualify data and take corrective action
Positive Control (Laboratory Control Sample)	1/batch	Method specific or determined by laboratory	Reprocess, reanalyze, or qualify data.
Matrix Spike; Matrix Spike Duplicates *Note : Samples are designed as data quality indicators for a specific sample using the designated method. These controls alone are not used to judge a laboratory's performance.*	Per method requirement	Method specific or determined by laboratory	Corrective action and qualify data.
Surrogate spikes *See note above.*	Per method requirement	Method specific or determined by laboratory	Corrective action and qualify data
Matrix Duplicates *See note above.*	Per method requirement	Method specific or determined by laboratory	Corrective action and qualify data
Continuing Calibration Verification	Per method requirement	Method specific or determined by the laboratory	Reanalyze standard immediately; Corrective action
Initial calibration Verification	Start of each analytical run	Method specific or determined by laboratory	Reanalyze standard immediately; Corrective action

27.2.2 Specific Controls

27.2.2.1 Method Blanks

Method blanks are processed along with and under the same conditions as the associated samples to include all steps in the method. A method blank must be analyzed at a minimum of one per preparation batch. When no separate preparation method is used the batch is defined as the environmental samples that are analyzed with the same method and personnel, using the same lots of reagents, not to exceed the analysis of twenty environmental samples, not including method blanks, LCS, matrix spikes and matrix duplicates. The matrix of the method blank must be similar to the associated samples and be free from any analytes of interest. Method blanks are not required for some analyses such as pH, conductivity, flash point, temperature, etc.

Contaminated blanks are identified according to the acceptance limits in the test method SOPs or laboratory documentation.

The laboratory identifies a blank as contaminated when analyte results are greater than the reporting limit AND greater than 1/10 of that found in any sample, or where the contamination affects the sample results according to test method requirements or client objective.

When a blank is determined to be contaminated, the cause must be investigated and measures taken to minimize or eliminate the problem.

Data that are unaffected by the blank contamination (non-detects or other analytes) are reported unqualified.

Sample data that are suspect due to the presence of a contaminated blank are reanalyzed, qualified, or voided.

27.2.2.2 Laboratory Control Samples

Laboratory Control Samples (LCS) are prepared from analyte free water or other clean matrix, and spiked with verified and known amounts of analytes for the purpose of establishing precision or bias measurements.

Laboratory control samples are analyzed at a frequency mandated by method, regulation, or client request, whichever is more stringent. The standard frequency of LCS preparation and analysis is one per analytical batch or as otherwise stated in a laboratory SOP. Exceptions would be for those analytes where no spiking solution is available, such as TSS,

TDS, Total Volatile Solids, Total Solids, pH, color, odor, temperature, dissolved oxygen or turbidity. When no separate preparation method is used the batch is defined as the environmental samples that are analyzed with the same method and personnel, using the same lots of reagents, not to exceed the analysis of twenty environmental samples, not including method blanks, LCS, matrix spikes and matrix duplicates.

The analytes to be spiked in the LCS are specified in the test method SOP. In some cases a client may specify a list of analytes for spiking and the request is handled using the laboratory's nonconformance procedures.

The results of laboratory control samples (LCS) are calculated in percent recovery or other appropriate statistical technique that allows comparison to established acceptance criteria. The laboratory documents the calculation as:

$$\%R = \frac{AV}{TV} \times 100$$

Where

AV = Analyzed Value
TV = True Value

The individual LCS is compared to the acceptance criteria as published in the mandated test method, or where there are no established criteria, the laboratory established limits as described above.

27.2.2.3 Matrix Spikes and Matrix Spike Duplicates

Matrix Spikes and Matrix Spike Duplicates (MS/MSD) are environmental samples fortified with a known amount of analyte to help assess the effect of the matrix on method performance.

The laboratory procedure for MS/MSD includes spiking appropriate analytes at appropriate concentrations, calculating percent recoveries and relative percent difference (RPD), and evaluating and reporting the results. The formulas are:

$$\%R = \frac{AV}{TV} \times 100$$

Where

AV = Spike Result – Sample Result
TV = True Value

$$RPD = \frac{|S - D|}{\frac{(S + D)}{2}} \times 100$$

Where:
S=Sample Concentration
D=Duplicate Concentration

Where there are no established criteria, the laboratory uses the mean plus or minus three standard deviations as the control limits for MS/MSD.

For MS/MSD results outside established criteria corrective action is documented or the data are reported with appropriate data qualifying codes. Only the data from the spiked sample is qualified.

27.2.2.4 Surrogate Spikes

Surrogate spikes are substances with chemical properties and behaviors similar to the analytes of interest used to assess method performance in individual samples. Surrogates are added to all samples (in test methods where surrogate use is appropriate) prior to sample preparation or extraction.

Surrogate recovery results are compared to the acceptance criteria as published in the mandated test method. Where there are no established criteria, the laboratory uses the mean plus or minus three standard deviations as surrogate control limits.

For surrogate results outside established criteria, data are evaluated to determine the impact. Corrective actions include a rerun and/or qualifying the data along with client discussion as appropriate.

27.3 Proficiency Test Samples or Interlaboratory Comparisons

27.3.1 Compliance Requirements

The laboratory analyzes and maintains a 100% pass rate for at least two TNI-compliant PT samples per calendar year for each Field of Proficiency Testing (FoPT) listed on their Scope of Activities (see Appendix G). An exception is made for analytes where there is no PT available from any PTPA approved PT provider at least twice per year. In these cases the lab will run the PTs in the minimum time frame the PTs are available and not at all if they are not available.

The successive PTs are analyzed at least five months apart and no more than 7 months apart unless the PT is being used for corrective action to maintain or reinstate compliance, in which case the dates of successive PT samples for the same FoPT is at least fifteen days apart. See Section 14 – "Corrective Action" for additional information.

27.3.2 PT Sample Handling, Analysis and Reporting

The laboratory does not share PT samples with other laboratories, does not communicate with other laboratories regarding current PT sample results, and does not attempt to obtain the assigned value of any PT sample from the PT provider.

Proficiency Testing (PT) samples are treated as typical samples in the normal production process where possible, including the same analysts, preparation, calibration, quality control and acceptance criteria, sequence of analytical steps, number of replicates, and sample log-in. PT samples are not analyzed multiple times unless routine environmental samples are analyzed multiple times. Where PT samples present special problems in the analysis process, they will be treated as laboratory samples where clients have special requests.

The type, composition, concentration and frequency of quality control samples analyzed with the PT samples are the same as with typical samples.

Prior to the closing date of a study, laboratory personnel do not:

- Subcontract analysis of a PT sample to another laboratory.
- Knowingly receive and analyze a PT for another laboratory.
- Communicate with an individual from another laboratory concerning the analysis of the PT sample.
- Attempt to find out the assigned value of a PT from the PT Provider.

PT results are submitted to the PT provider. The Technical Manager must ensure that PPPT reports are electronically submitted to the Director of Laboratory Services and the Quality Manager by the PT provider.

The laboratory institutes corrective action procedures for failed PT samples following the guidelines in Section 14 – "Corrective Action".

Retention of PT records is similar to that maintained for regular environmental samples. In addition the lab maintains a copy of the online data entry summary when the PT results are submitted online.

27.4 Data Review

The laboratory reviews all data generated in the laboratory for compliance with method, laboratory and, where appropriate, client requirements.

Initially, the analyst reviews data for acceptability of quality control measures and accuracy of the final result(s).

After the initial review, a second reviewer considers all manual transfers and calculations of data in detail and spot checks all electronic transfers of data.

Final reports are compared to raw data either directly or through several reviewed steps.

Bench sheets are used to record the information required for traceability of the analysis. The bench sheets include quality control measurements and acceptance criteria. Data are recorded on the bench sheets promptly at the time of the analysis, in ink.

Analysts review sample data and the QC information at the time of analysis and indicate if the QC parameters meet the acceptance criteria by marking the bench sheet.

The analysts signs and dates the bench sheet to indicate that they have performed the steps indicated and that the analysis meets acceptance criteria or has exceptions that are noted in the comments section of the bench sheet.

When the analysts has finished the primary analysis review, another person in the laboratory checks the bench sheet for the following items:

a) All required information has been recorded on the bench sheet.
b) QC criteria have been met or exceptions are documented in the comments section of the bench sheet.
c) Manual calculations are checked for accuracy.

When these checks have been completed, the reviewer signs and dates the bench sheet to document that the review has been performed.

The bench sheet is used by the Technical Manager to enter the data into the LIMS (if applicable) and PT provider website.

The report is printed and submitted to one of the approved signatories for final review and signature. This final review includes verifying that the data entered on the worksheet has been appropriately transferred to the LIMS (if applicable) and PT provider website, and that the data is coherent, the QC results are acceptable, QC exceptions are appropriately reflected on the final report, and results are in linewith historical values, if known.

Section 28

REPORTING THE RESULTS
(TNI V1:M2 – Section 5.10)

The result of each test performed is reported accurately, clearly, unambiguously, and objectively and complies with all specific instructions contained in the test method.

Laboratory results are reported in a test report that includes all the information requested by the client and necessary for the interpretation of the test results and all information required by the method used.

Data are reported without qualification if they are greater than the lowest calibration standard, lower than the highest calibration standard, and without compromised sample or method integrity.

28.1 Test Reports

The report format has been designed to accommodate each type of test performed and to minimize the potential for misunderstanding or misuse.

Each test report generated contains the following information:

a) a title, such as test report or test results

b) the name and address of the laboratory, the location of the laboratory if different from the address;

c) unique identification of the test report, such as a serial number, on each page and a pagination system that ensures that each page is recognized as part of the test report and a clear identification of the end of the report, such as 3 of 10;

d) the name and address of the client;

e) the identification of the method used;

f) a description of, the condition of, and unambiguous identification of the sample(s) tested, including the client identification code;

g) the date of sample receipt when it is critical to the validity and application of the results, date and time of sample collection, dates the tests were performed, the time of sample preparation and analysis if the required holding time for either activity is less than or equal to 72 hours;

h) reference to the sampling plan and procedures used by the laboratory where these are relevant to the validity or application of the results;

i) the test results, units of measurement, an indication of when results are reported on any basis other than as received (e.g. dry weight), failures identified (See Appendix F for a list of laboratory qualifiers);

j) the name, function, and signature or an equivalent electronic identification of the person authorizing the test report, and the date of issue;

k) where relevant, a statement to the effect that the results relate only to the samples;

l) Any non-accredited tests or parameters shall be clearly identified as such to the client when claims of accreditation to this Standard are made in the analytical report or in the supporting electronic or hardcopy deliverables; and

m) A statement that the report shall not be reproduced except in full without written approval of the laboratory.

28.2 Supplemental Test Report Information

When necessary for interpretation of the results or when requested by the client, test reports include the following additional information:

a) deviations from, additions to, or exclusions from the test method, information on specific test conditions, such as environmental conditions, and any non-standard conditions that may have affected the quality of the results, and any information on the use and definitions of data qualifiers;

b) a statement of compliance/non-compliance when requirements of the management system are not met, including identification of test results that did not meet the laboratory and regulatory sample acceptance requirements, such as holding time, preservation, etc.;

c) where applicable and when requested by the client, a statement on the estimated uncertainty of the measurement;

d) where appropriate and needed, opinions and interpretations. When opinions and interpretations are included, the basis upon which the opinions and interpretations are documented. Opinions and interpretations are clearly marked as such in the test report.

e) additional information which may be required by specific methods or client;

f) qualification of results with values outside the calibration range as appropriate.

28.3 Environmental Testing Obtained from Subcontractors

Test results obtained from tests performed by subcontractors are clearly identified on the test report by subcontractor name and/or accreditation number.

The subcontractors report their results in writing or electronically. A copy of the subcontractors report is made available to the client if requested.

28.4 Electronic Transmission of Results

All test results transmitted by telephone, fax, telex, e-mail, or other electronic means comply with the requirements of the TNI Standard and associated procedures to protect the confidentiality and proprietary rights of the client (see Section 22- "Environmental Methods and Method Validation").

28.4.1 Electronic Data Deliverables

Not applicable.

28.5 Amendments to Test Reports

Material amendments to a test report after it has been issued are made only in the form of another document or data transfer. All supplemental reports meet all the requirements for the initial report and the requirements of this *Quality Manual*.

28.6 Exceptions

Not applicable.

APPENDICES

Appendix A

Ethics and Data Integrity Policy

At US Ecology, we believe in a culture of honesty, trust, and integrity in all business practices. No employee shall knowingly manipulate or falsify data. No employee shall knowingly deviate from the Quality Assurance requirements established for the laboratory. All employees shall make every effort to minimize the generation of waste during sample preparation and analysis, and will dispose of all waste following established laboratory practices. US Ecology will make all necessary information available to the employee to perform job responsibilities according to ethical and established practices.

Andy Marshall
EVP, Regulatory Compliance and Safety
US Ecology, Inc.

Paul Canevaro
Director of Laboratory Services
US Ecology, Inc.

Appendix B

Laboratory Organization Charts

The most current chart(s) can be obtained from the Quality Manager or Facility Laboratory Director. An updated electronic record is maintained here:

\\aecdc02.americanecology.com\Boise\SHARED\AMARSHALL\Lab Services Group\Laboratory Quality Manual\Laboratory Organizational Charts

B.1 Stablex, A US Ecology Company
B.2 US Ecology Canton (Envirite of Ohio)
B.3 US Ecology Chicago (Envirite of Illinois)
B.4 US Ecology Detroit (South)
B.5 US Ecology Idaho
B.6 US Ecology Michigan
B.7 US Ecology Nevada
B.8 US Ecology Sulligent
B.9 US Ecology Tampa
B.10 US Ecology Texas
B.11 US Ecology Tulsa
B.12 US Ecology Vernon
B.13 US Ecology York (Envirite of Pennsylvania)

Appendix C

Laboratory Floor Plan

The most current floor plan(s) can be obtained from the Quality Manager or Facility Laboratory Director. An updated electronic record is maintained here:

\\aecdc02.americanecology.com\Boise\SHARED\AMARSHALL\Lab Services Group\Laboratory Quality Manual\Laboratory Floor Plans

B.1 Stablex, A US Ecology Company
B.2 US Ecology Canton (Envirite of Ohio)
B.3 US Ecology Chicago (Envirite of Illinois)
B.4 US Ecology Detroit (South)
B.5 US Ecology Idaho
B.6 US Ecology Michigan
B.7 US Ecology Nevada
B.8 US Ecology Sulligent
B.9 US Ecology Tampa
B.10 US Ecology Texas
B.11 US Ecology Tulsa
B.12 US Ecology Vernon
B.13 US Ecology York (Envirite of Pennsylvania)

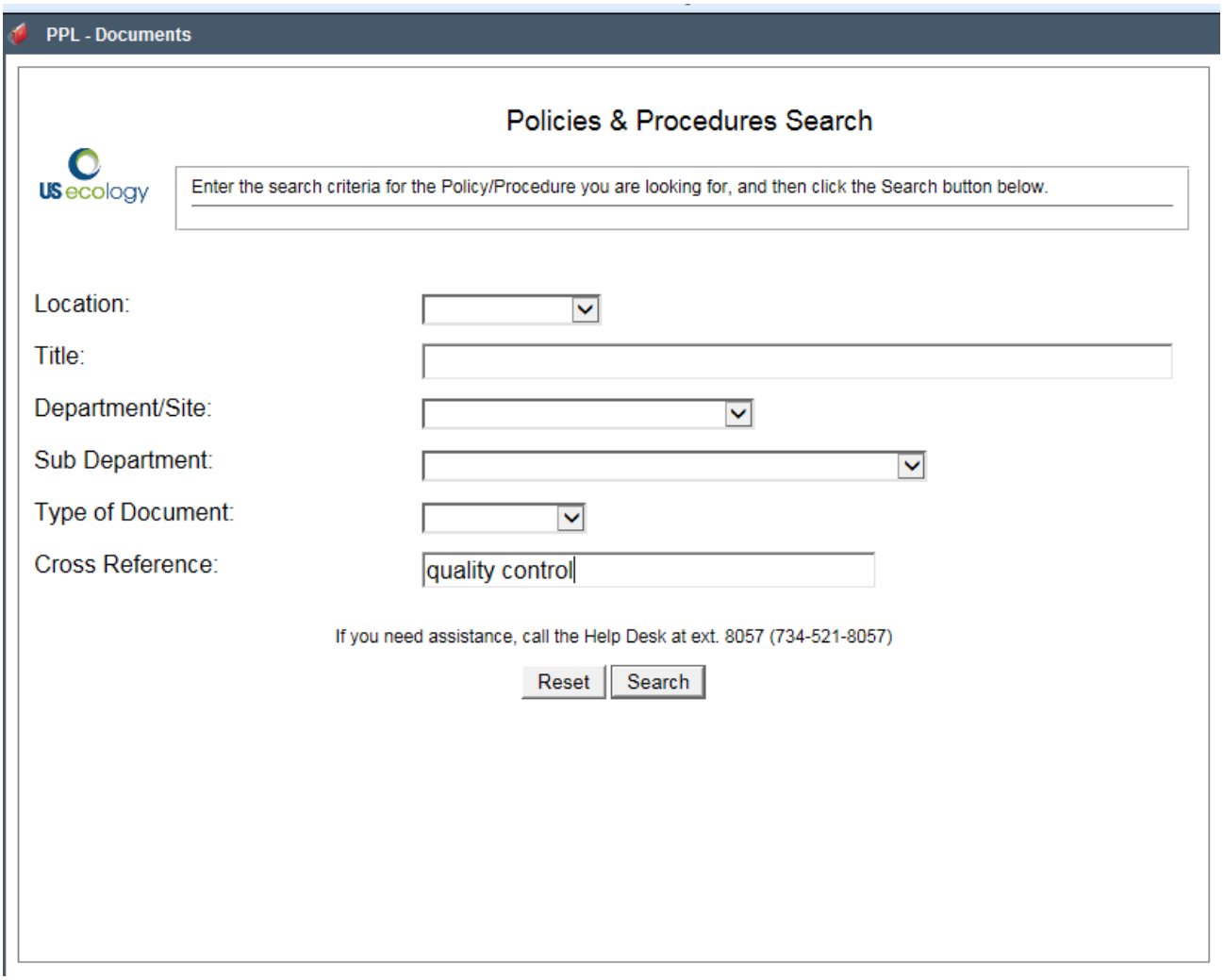
Appendix D

QC Acceptance Limit Summary Tables

QC Acceptance Limit Summary Tables are maintained within our Corporate document control database, OnBase – Policy and Procedures Library. They can be found by using the cross reference words QUALITY CONTROL (see picture below) or by searching for the following:

Inorganic Methods:
PPL – EHS LABORATORY – QC SUMMARY_INORGANICS – EHS – CORPORATE

Organic Methods:
PPL – EHS LABORATORY – QC SUMMARY_ORGANICS – EHS – CORPORATE



Appendix E

Laboratory Accreditation/Certification/Recognition

US Ecology maintains the following certifications and accreditations with numerous state and national entities:

Organization	Certificate Number	Accreditation Body	Expiration
Envirite of Ohio Inc	012	Commonwealth of Pennsylvania Department of Environmental Protection	9/30/2019
US Ecology Vernon, Inc,	2313	California State ELAP	7/31/2019
US Ecology - Vernon	CA003002018-1	State of Nevada Department of Conservation and Natural Resources	7/31/2019

The certificates and parameter lists (which may differ) for each organization may be found on the Boise Shared drive in the folder **Accreditation Documents**, \\aecdc02.americanecology.com\Boise\SHARED\AMARSHALL\Lab Services Group.

If accreditation is terminated or suspended, the laboratory will immediately cease to use the certificate number reference in any way and inform clients impacted by the change.

Appendix F

Data Qualifiers

CORPORATE:

B = analyte is detected in associated method blank
D = reported concentration is from a dilution, reporting limits have been adjusted accordingly
E = Result exceeds the calibration range
H = The hold time for sample preparation and/or analysis was exceeded
I = matrix interference
J = denotes result is an estimated value (measured value falls between established method detection and practical quantitation limits)
* = result is an estimate
m = manually integrated
P = precision percentage is out of regulatory limits.
Q = QC sample does not meet acceptance requirements but analyte not detected in the sample
R1 = Matrix Spike (MS) outside advisory limits
R2 = Matrix Spike Duplicate (MSD) outside advisory limits
R3 = Post digestion spike outside advisory limits
S1 = surrogates outside of control limits
S2 = surrogates diluted
U = The compound was analyzed for but not detected
Z = Refer to case narrative for additional information

Facility Specific Data Qualifier(s):

Chicago:

N Indicates presumptive evidence of a compound where the identification is based on a mass spectral library search. Quantitation is estimated using a 1:! Response with the nearest internal standard.

Michigan (metals):

R	RSD above 20%. Confidence for the concentration of this wavelength is low.
-	Result below negative MDL. If ABS (Result) is close to regulatory limit, verify result.
F	Failing. Result above regulatory limit.
C	Close. Result for this element is close to regulatory limit (60-99%).
*	MDL increased to account for "-" or "R" flag when concentration not near regulatory limit.
A	Expected concentration failing high
a	Expected concentration failing low
B	Expected zero concentration above MDL.
b	Expected zero concentration below negative MDL.
OA	Opening CCV failing high (> 110%)

Oa	Opening CCV failing low. (< 90%) **Result unacceptable**.
OB	Opening CCB failing high. (> MDL)
Ob	Opening CCB failing low (< - MDL)
CA	Closing CCV failing high. (> 110%)
Ca	Closing CCV failing low. (< 90%) **Result unacceptable**.
CB	Closing CCB failing high. (> MDL)
Cb	Closing CCB failing low. (< - MDL)
IA	ICSA failing high (> 120%)
Ia	ICSA failing low (< 80%)
L	Result is above LRA. Result unusable. Dilute and reanalyze.
X	Result interfered on by another element over its LRA. Result unusable.
<	Result below MDL shown.

NL	Calibration for element was Non-Linear (R < 0.995). **Result unusable.**
10X	(MS or AS only) Original sample concentration > 10 times Spike value. Recovery not calculable.
NO DATA	Syngistix didn't apply calibration to this wavelength. Concentration not calculated.
	Internal Standard outside range (30% - 120%)
	Internal Standard for bracketing QC (CCV or CCB) outside range (30% - 120%)
	Indicates a QC problem which might invalidate the result for this wavelength.
	Indicates a large difference between radial and axial IS. Possibly due to an air bubble.
	Tank sample with DF other than 2. Verify the correct DF was used.

Nevada:

S- = Low Bias %Spike recovery Criteria (for LCS, LCSD, MS and MSD)
S+ = High Bias %Spike recovery Criteria (for LCS, LCSD, MS and MSD)

STABLEX: Typically, results are not reported if calibration results, blank samples or QC samples do not meet acceptable requirements. When such case happens, an action is immediately performed to correct the situation (preparation of a freshly prepared QC, QC recheck or blank recheck…) and results are not reported until the situation has been fixed. However, depending on the criticality of the element, such deviance can be tolerate if documented accordingly:

S2: (Analyte):3-elements or less do not meet requirements, results considered acceptable for all elements
S3:(Analyte): non critical element
S4(Analyte):5 elements or less do not meet requirements, results considered acceptable for all elements
S5(QC): 2-chloro éther vinyl ether, degradation in solution

Texas

Results are reported on a wet weight basis unless otherwise indicated. The lower level of quantitation (LLOQ) is the lowest calibration level of the quantitative method taking into account all dilutions and/or concentration factors and sample weights or volumes.
L= LCS recoveries are out of control limits.

Additional Information:

NOTE: Some corporate data qualifiers are similar to facility data qualifiers. A brief explanation can be found below:

General (All Labs)	Nevada	Michigan
R1 = Matrix Spike (MS) outside advisory limits **R2** = Matrix Spike Duplicate (MSD) outside advisory limits	**S-** = Low Bias %Spike recovery Criteria (for LCS, LCSD, MS and MSD)	**Oa** = Opening CCV failing low. (< 90%) **Result unacceptable**.
		Ob = Opening CCB failing low (< - MDL)
		Ca = Closing CCV failing low. (< 90%) **Result unaccpetable**.
		Cb = Closing CCB failing low. (< - MDL)
		Ia = ICSA failing low (< 80%)
	S+ = High Bias %Spike recovery Criteria (for LCS, LCSD, MS and MSD)	**OA** = Opening CCV failing high (> 110%)
		OB = Opening CCB failing high. (> MDL)
		CA = Closing CCV failing high. (> 110%)
		CB = Closing CCB failing high. (> MDL)
		IA = ICSA failing high (> 120%)

Appendix G

Laboratory Scope of Activities

G.1 Stablex, A US Ecology Company
G.2 US Ecology Canton / Envirite of Ohio
G.3 US Ecology Chicago / Envirite of Illinois
G.4 US Ecology Detroit (South)
G.5 US Ecology Idaho
G.6 US Ecology Michigan
G.7 US Ecology Nevada
G.8 US Ecology Tampa
G.9 US Ecology Texas
G.10 US Ecology Tulsa
G.11 US Ecology Sulligent
G.12 US Ecology Vernon / EVOQUA WATER TECHNOLOGIES, LLC.
G.13 US Ecology York / Envirite of Pennsylvania

NOTE: *For guidance on reviewing the Laboratory Scope of Activities, please refer to LAB-WI-003-COR Guidelines for Creating and Modifying a Laboratory Scope of Activities. For ease of use, common abbreviations listed in the WI have been listed below:*

- **Class:** Full (F), Modified (M), or Internal (I)
- **Matrix:**

Aq	Aqueous
E	TCLP Extract
L	Liquid waste
NPW	Non-Potable water
RM	Recovered Material
S	Solid waste
TR	Treatment residue
W	Waste

Scope of Activities for **US Ecology Detroit**
Environmental Monitoring and/or Testing Laboratories

Laboratory Locations:

Primary Lab Address: 1923 Frederick St. Detroit, MI 48211 Contact: Jake Danko Phone: 313.347.1362
Additional Lab Address: _____ Contact: _____ Phone: _____
Additional Lab Address: _____ Contact: _____ Phone: _____

NOTE: When filling in the table, please refer to LAB-WI-001-ALL Guidelines for Creating and Modifying a Laboratory Scope of Activities Statement. The text contained in the table must comply with LAB-WI-001-ALL instructions. If you have any additional questions please contact the Laboratory Services Group (LSG).

Field of Testing	Range	Test Method	Class	Matrix	PT	Remarks
Acidity	RL: 1%	SM 2310B	M	Aq, L	-	Screening
Ash	RL: 1%	ASTM D 2974-87 (method C)	I	Aq, L, S	-	Screening
Chloride	RL: 1%	SM 4500 Cl B	M	L	-	Screening
CN, Total & Amenable (Distillation)	-	EPA 9010C Rev 3 (November 2004)	F	TR	-	MDP
CN, Total & Amenable (Titration)	RL: 1 mg/L	EPA 9014 Rev 1 (July 2014)	F	TR	Yes	
CN, Available (Titration)	RL: 1 mg/L	SM 4500 CN G-2011	F	NPW	Yes	GLWA Compliance Monitoring
CN, Reactive	RL: 1mg/L	SW 846 7.3.3 Rev. 3 (December 1996)	M	L, S, TR, W	-	Screening
CN, Spot Test	Positive / Negative	LAB-OP-008-DETS	I	Aq, L, S, TR, W	-	Screening
Halogens, Total (Field Test Kit)	RL: 1000 mg/kg	LAB-OP-021-DETS	F	L	-	Screening
Heat of Combustion (Calorimeter)	RL: 100 BTU	ASTM D240-87	M	L	-	Screening
Hexavalent Chrome, Spot Test	Positive / Negative	LAB-WI-041-DETS	I	Aq, L, S	-	Screening
Ignitability (Rapid Flash)	Ambient - 230 °F	EPA 1020B (ASTM D3278-78)	M	L	-	Screening
Ignitability (Match Test)	<140°F / >140°F	LAB-OP-016-DETS	I	S	-	Screening
Nonvolatile Matter	< 1 - 100%	ASTM D1353-02	M	RS	-	Screening
Nonhalogenated Organics (GC / FID determination)	1 - 100 mg/L	EPA 8015C Rev 3 (November 2000)	F	TR	-	Alcohols
Mercury, Total and dissolved (Aqueous CVAFS determination)	0.005-10.0 ug/L	EPA 245.7 Rev 2.0 (February 2005)	M	E, NPW, TR	Yes	GLWA Compliance Monitoring
Metals, Total Recoverable (Digestion, ICP determination)	0.05 - 5.0 mg/L	EPA 200.7 Rev 4.4 (1994)	F	NPW	Yes	GLWA Compliance Monitoring

Metals, Total (Hot plate, Acid Digestion)	-	EPA 3010A Rev 1 (July 1992)	F	E, NPW, S, TR	-	Backup digestion method
Metals, Available (Microwave, Acid Digestion)	-	EPA 3015A Rev 1 (February 2007)	F	E, NPW, TR	-	
Metals (ICP determination)	0.05 - 5.0 mg/L	EPA 6010C Rev 3 (November 2000)	F	E, TR	Yes	
*Odor Review	-	WAP C-4b	I	Aq, L, S, TR, W	-	Screening
Oxidizer, Spot Test	Pass / Fail	LAB-OP-010-DETS	I	Aq, L, S, TR, W	-	Screening
PCB (GC determination)	0.1 - 1.0 mg/L	EPA 8082A Rev 1 (February 2007)	M	L, S	-	Screening
Peroxide	RL: 0.1%	LAB-WI-025-DETS	I	Aq, L	-	Screening
pH (Electrometric)	2 - 12	EPA 9040C Rev 3 (November 2004)	F	AqW, E, L	Yes	MDP
pH (Electrometric)	2 - 12	EPA 9045D Rev 4 (November 2004)	F	S, TR	Yes	MDP
Physical Description	-	LAB-OP-008-DETS	I	-	-	Screening
Radiation	-	LAB-WI-042-DETS	I	Aq, L, S	-	Screening
Reactivity, Acid	Yes / No	LAB-OP-008-DETS	I	L, S	-	Screening
Reactivity, Caustic	Yes / No	LAB-OP-008-DETS	I	L, S	-	Screening
Reactivity, CKD	Yes / No	LAB-OP-008-DETS	I	L, S	-	Screening
Reactivity, H_2 Gas	Pass / Fail	LAB-OP-008-DETS	I	L, S	-	Screening
Reactivity, Oxidizer	Yes / No	LAB-OP-008-DETS	I	L, S	-	Screening
Reactivity, Tank Compatibility	Yes / No	LAB-OP-036-DETS	I	L	-	Screening
Reactivity, Water	Yes / No	LAB-OP-036-DETS	I	L, S	-	Screening
Specific Gravity (Gravimetric)	-	SM 2710 F	M	L	-	Screening
SVOC, Base/Neutrals and Acids (GC/MS determination)	1 - 100 mg/L	EPA 625 (Promulgated 1994)	M	NPW	Yes	GLWA Compliance Monitoring
SVOC (Ultrasonic Extraction)	-	EPA 3550C Rev 3 (February 2007)	F	S, TR	-	Low concentration procedure
SVOC (GC/MS determination)	1 - 100 ug/L	EPA 8270D Rev 3 (December 1996)	F	S, TR	Yes	
Sulfide, Spot Test	+ / -	LAB-OP-012-DETS	I	Aq, L, S, TR, W	-	Screening
TCLP (Inorganics and Organics)	-	EPA 1311 Rev 0 (July 1992)	F	TR, W	Yes	MDP
TCLP (Quick Spin)	-	EPA 1311 Rev 0 (July 1992)	M	TR, W	-	
TSS	RL: 100 mg/L	SM 2540 D 2011	F	NPW	Yes	GLWA Compliance Monitoring

VOC (sample introduction, P&T)	-	EPA 5030B Rev 2 (December 1996)	F	AqW	-	
VOC (sample collection & preservation, P&T)	-	EPA 5035 Rev 0 (December1996)	F	S, W	-	
VOC (GC/MS determination)	1 - 100 ug/L	EPA 8260B Rev 2 (December 1996)	F	E, S, TR	Yes	

Notes:

1. Subcontracted Regulatory work: Herbicides, Pesticides, FOG, PCB in Water, and BOD.
2. *Odor Review – No method or SOP available.

jake danko	DocuSigned by: jake danko 910E1460C1BB4CC...	11/28/2018
Facility Laboratory Director Name (print)	Facility Laboratory Director Signature	Approval Date
Tabetha Peebles	DocuSigned by: Tabetha Peebles 00E5FEDC01C5456...	11/28/2018
Compliance Manager Name (print)	Compliance Manager Signature	Approval Date
Paul Canevaro	DocuSigned by: Paul Canevaro 74C1AF6B6AF24B1...	11/28/2018
Director of Laboratory Services Name (print)	Director of Laboratory Services Signature	Approval Date

Scope of Activities for **US Ecology Michigan**
Environmental Monitoring and/or Testing Laboratories

Laboratory Locations:

Primary Lab Address: 49350 N. I-94 Service Drive Belleville, MI 48111 Contact: Brittany Paglia Phone: 800.592.5489
Additional Lab Address: _____ Contact: _____ Phone: _____
Additional Lab Address: _____ Contact: _____ Phone: _____

NOTE: When filling in the table, please refer to LAB-WI-001-ALL Guidelines for Creating and Modifying a Laboratory Scope of Activities Statement. The text contained in the table must comply with LAB-WI-001-ALL instructions. If you have any additional questions please contact the Laboratory Services Group (LSG).

Field of Testing	Range	Test Method	Class	Matrix	PT	Remarks
Compatibility	Pass / fail	-	I	L, S, W	-	Screening
CN, Total & Amenable (Distillation)	-	EPA 9010C Rev 3 (November 2004)	F	TR	-	MDP LDR
CN, Free (Titration, Spectrometer)	0.6 mg/kg - %	EPA 9014 Rev 1 (July 2014)	F	TR	Yes	LDR, screening
CN, Spot Test	+ / -	-	I	L, S, W	-	Screening
Ignitability (Rapid Flash)	Ambient – 200 °F	EPA 1020B (ASTM D3278-78)	F	L	Yes	MDP LDR
Ignitability (Match Test)	Pass / Fail	-	I	L, S, W	-	Screening
Mercury, Total and dissolved (Aqueous CVAFS determination)	0.0005-0.010 mg/L	EPA 7470A Rev 1 (Sept. 1994)	M	E, NPW	Yes	LDR
Mercury, Total (Thermal decomposition, AA determination)	Pending Method Validation	EPA 7473 Rev 0 (February 2007)	F	E, NPW	Yes	Expected 2019 LDR
Metals, Available (Microwave, Acid digestion)	-	EPA 3015A Rev 1 (February 2007)	F	E, NPW	-	
Metals (ICP determination)	0.05 - 2.0 mg/L	EPA 6010D Rev 4 July 2014)	F	E, NPW, TR	Yes	
Nonhalogenated Organics (GC/FID determination)	0.5 - 100 mg/L	EPA 8015C Rev 3 (November 2000)	F	TR	Yes	Alcohols
Oxidizer, Spot Test	Pass / Fail	-	I	W, TR, S	-	LDR, screening
Paint Filter	Pass / Fail	EPA 9095B Rev 2 (November 2014)	F	L, S	-	MDP LDR
PCB (GC determination)	0.1 - 2.0 mg/L	EPA 8082A Rev 1 (February 2007)	M	TR	Yes	Screening
Pesticides, Organochlorine (GC/ECD or ELCD determination)	0.1 - 2.0 mg/L	EPA 8081B Rev 2 (February 2007)	F	TR	Yes	
pH (Electrometric)	2 to 12	EPA 9040C Rev 3 (November 2004)	F	AqW, E	Yes	MDP LDR
pH (Electrometric)	2 to 12	EPA 9045D Rev 2 (November 2014)	F	S, TR	Yes	MDP
Physical Description	-	Visual	I	L, S, W	-	Screening

Radiation, Check	-	-	I	L, S, W	-	Screening
Reactivity, Acid	Yes / No	-	I	L, S, W	-	Screening
Reactivity, Bleach	Yes / No	-	I	L, S, W	-	Screening
Reactivity, Caustic	Yes / No	-	I	L, S, W	-	Screening
Reactivity, DKD	Yes / No	-	I	L, S, W	-	Screening
Reactivity, Water	Yes / No	-	I	L, S, W		LDR, screening
SVOC (Ultrasonic Extraction)	-	EPA 3550C Rev 3 (February 2007)	F	S, TR	-	Low concentration procedure
SVOC (GC/MS determination)	1 - 60 mg/L	EPA 8270E Rev 6 (February 2017)	M	S, TR	Yes	
Sulfide, Hydrogen	Pass / Fail	-	I	L, S, W	-	LDR and screening
Sulfide, Spot Test	+ / -	-	I	L, S, W	-	Screening
TCLP (Metals Mobility, Organics)	-	EPA 1311 Rev 0 (July 1992)	F	TR, W	Yes	MDP LDR
VOC (Sample introduction, P&T)	-	EPA 5030B Rev 2 (December 1996)	F	AqW	-	
VOC (Sample collection & preservation, P&T)	-	EPA 5035 Rev 0 (December1996)	F	S, W	-	
VOC (GC/MS determination)	2.5 - 100 ug/L	EPA 8260D Rev 4 (February 2017)	F	E, S, TR	Yes	

Notes:

1. Subcontracted Regulatory work: PCB and Pesticides (608.3), Total Phenol (420.4), Total Phosphorus (4500-PE), Free CN (O1A1677), Total Mercury (245.1), VOC (624.1), FOG (1664B), Metals (200.7), TSS (2540-D), 5-Day BOD (5210B), SVOC (625.1), Selenium (200.8) Gamma Spec-NORM (HASL 300-Ga-01)
2. At the time of review, the lab was waiting for a Milestone Hg Analyzer. They expect to perform method validation in 2019.

Brittany Paglia	DocuSigned by: Brittany Paglia	11/5/2018
Facility Laboratory Director Name (print)	Facility Laboratory Director Signature	Approval Date
Sylwia Scott	DocuSigned by: Sylwia Scott	11/2/2018
Compliance Manager Name (print)	Compliance Manager Signature	Approval Date
Paul Canevaro	DocuSigned by: Paul Canevaro	11/6/2018
Director of Laboratory Services Name (print)	Director of Laboratory Services Signature	Approval Date

Appendix H

Approved[1] Subcontract Laboratories

<Insert your list of *Approved Subcontract Laboratories* here.>

[1] Program goal for 2019: Develop risk model used to evaluate subcontract laboratories.

Appendix I

Chemistry

I.1 Method Validation

Reference methods are validated by determining the LOD and/or LOQ by procedures outlined below, and determining precision and bias by using the demonstration of capability procedures.

Before any non-standard method is used in the laboratory, the laboratory:

- Determines the data quality indicators that must be used to ensure that the data are acceptable for the intended use.
- Determined the Limit of Detection (LOD) and Limit of Quantitation for each quality system matrix to be used in the laboratory.
- Uses the action level to establish the LOQ and/or LOD.
- Establishes and verifies the initial calibration, initial calibration verification, continuing calibration verification, method blanks, and calibration blanks that are acceptable for the intended use.
- Establishes quality control acceptance criteria for precision, accuracy, and selectivity (if applicable) that is based on the intended use.

a) Limit of Detection (LOD)

If the laboratory is not required to report to the LOD, or the method does not require a LOD study, a LOD is not required.

The Limit of Detection (LOD) is the laboratory's estimate of the minimum amount of an analyte in a given matrix that an analytical process can reliably detect in their facility.

LODs are not required for any component for which spiking solutions or quality control samples are not available. These include conductivity, pH, TSS, TDS, temperature.

The laboratory will select methods with LODs that are expected to meet the intended data use.

LODs are determined in samples that represent the quality system matrices to be evaluated. All sample processing/preparation steps and all determinative steps are used to validate the method for all targeted analytes. The representative quality system matrix will be free from the target analytes of interest or interfering analytes that impact the LOD.

When the method or applicable regulation specifies a LOD study, only the specified method will be used. The laboratory will document the process used to derive the LOD and will retain all the supporting data.

When providing compliance data under 40 CFR Part 136 or equivalent delegated state programs, the laboratory follows 40 CFR Part 136, Appendix B, and uses the method detection limit (MDL) derived from the procedure as the LOD. For all other data, the laboratory uses the following procedure to determine the LOD for the method: the LOD is established at a concentration that is 5 times signal-to-noise ratio.

Once the LOD has been determined the validity of the LOD is verified by a detection (value above zero) for each target analyte in a quality control sample of a representative quality system matrix. The concentration of the analytes in the sample will be no more than 3 times the derived LOD unless the test contains multiple analytes. In the latter case, the concentration of the target analytes will be no greater than 4 times the LOD. This verification will be performed on each instrument that is used for the test.

LODs are performed/repeated:

- before reporting the LOD for a given analyte
- any time there is a change that affects how the method is performed or
- when there is a change in instrumentation that affects the sensitivity of the analysis.

LODs are verified annually for each quality system matrix/technology/analyte combination.

b) Limit of Quantitation

The Limit of Quantitation (LOQ) is an estimate of the minimum amount of a substance that can be reported with a specified degree of confidence.

If an LOD study is not performed, concentration values less than the Limit of Quantitation are not reported but are appropriately flagged.

LOQs are not required for components or properties for which spiking solutions or QC samples are not available. These include conductivity, pH, TSS, TDS, temperature.

An LOQ study includes all sample processing and analysis steps in the analytical method. The study is performed in each quality system matrix for which the test will be performed. The procedure is documented and all supporting data are retained. The resulting LOQ will be above the LOD (if determined).

The LOQ is no less than 3 x the method detection level. Or, the LOQ is 10 times the LOD. The LOQ may also be established by the low calibration standard.

The laboratory will verify the LOQ by the analysis of a QC sample containing the analytes of concern at a concentration of 1 to 2 times the derived (claimed) LOQ. The LOQ is considered verified if recovery of each analyte is within the laboratory's acceptance limits, or the client's data quality objectives.

The LOQ will be verified annually for each quality system matrix, technology and analyte unless the LOD was determined or verified.

c) Precision and Bias

Precision is the degree to which a set of observations or measurements of the same property, obtained under similar conditions, conform to themselves. Precision is usually expressed as standard deviation, variance, or range, in either absolute or relative terms.

Bias is the systematic error that contributes to the difference between the mean of a significant number of test results and the accepted reference value.

Precision and bias using non-reference, modified reference or laboratory-developed methods are established using the procedure outlined below and compared to the criteria established by the client (when requested), the method, or the laboratory.

Precision and bias are determined by processing samples through all phases of the method (sample preparation, cleanup, analysis, etc.) and are evaluated across the analytical calibration range of the method. This study is performed for all quality system matrices for which the test is to be used.

d) Selectivity

Selectivity is the capability of a test method or instrument to respond to a target substance or constituent in the presence of non-target substances (EPA-QAD).

The laboratory evaluates selectivity through procedures defined in the test method SOPs. These procedures include a second column confirmation, evaluation of retention time windows, mass spectral tuning, ICP interelement interference checks, sample blanks, spectrochemical, atomic absorption or fluorescence profiles, co-precipitation evaluations, and/or specific electrode response factors. Specific selectivity procedures can be found in the test method SOPs.

I.2 Demonstration of Capability

Demonstration of Capability (DOC): A procedure to establish the ability of the analyst to generate analytical results of acceptable accuracy and precision.

Before reporting any data with a given method, a satisfactory DOC is performed. Thereafter, each analyst demonstrates continuing proficiency through the procedures outlined in Ongoing Demonstration of Capability.

a) Initial Demonstration of Capability (IDOC)

An IDOC is performed:

- Before using any method

- Each time there is a change in instrument type, personnel or method and
- If the laboratory or analysts has not performed the method in a twelve-month period.

The IDOC(s) for each analyst is documented on LAB-FM-003-ALL Demonstration of Capability and maintained by the Technical Manager. The document identifies the analyst(s) involved in preparation and/or analysis; matrix; analyte(s), class of analyte(s), or measured parameter(s); the method(s) performed; the laboratory-specific SOP used for analysis (including revision number); the date(s) of analysis; and a summary of the results used to calculate the mean recovery and standard deviations.

All raw data, preparation records, and calculations for each IDOC are retained and are available for review.

When the method specifies a procedure to be followed, only those procedures will be used. If no procedures are specified the laboratory uses the following procedure to demonstrate initial DOC:

1. A quality control sample is obtained from an outside source. If not available, the QC is prepared using stock standards that are prepared independently from those used in instrument calibration.
2. The analyte(s) is diluted in a volume of clean quality system matrix sufficient to prepare four aliquots at the concentration specified, or if unspecified, to a concentration of 1-4 times the limit of quantitation.
3. At least four aliquots are prepared and analyzed according to the test method either concurrently or over a period of days.
4. Using all of the results, calculate the mean recovery in the appropriate reporting units and the standard deviations of the population sample (in the same units) for each parameter of interest. When it is not possible to determine mean and standard deviations, such as for presence/absence and logarithmic values, the performance is assessed against established and documented criteria.
5. Compare the information from (d) above to the corresponding acceptance criteria for precision and accuracy in the test method (if applicable) or in laboratory-generated acceptance criteria (if there are not established mandatory criteria). If all parameters meet the acceptance criteria, the analysis of actual samples may begin. If any one of the parameters do not meet the acceptance criteria, the performance is unacceptable for that parameter.
6. When one or more of the tested parameters fail at least one of the acceptance criteria, the analyst must proceed according to 1) or 2) below.
    i. Locate and correct the source of the problem and repeat the test for all parameters of interest beginning with c) above.
    ii. Beginning with c) above, repeat the test for all parameters that failed to meet criteria.

Repeated failure, however, confirms a general problem with the measurement system. If this occurs, the source of the problem is located and corrected and the test repeated for all compounds of interest beginning with c).

b) Ongoing Demonstration of Capability

After the demonstration of capability is completed, on-going proficiency is maintained and demonstrated at least annually. Each analyst is expected to consistently meet the QC requirements of the method, the laboratory SOP, client requirements and/or the TNI Standard. Ongoing DOCS are documented on LAB-FM-003-ALL Demonstration of Capability and maintained by the Technical Manager. All records related to the demonstration are retained.

The laboratory uses the following procedure to demonstrate ongoing DOC:

1. Acceptable performance of a blind sample (single blind to the analyst). Successful analysis of a blind performance sample on a similar method using the same technology (e.g., GC/MS volatiles by purge and trap for Methods 524.2, 624 or 5030/8260) would only require documentation for one of the tests.;
2. another initial DOC;
3. At least four (4) consecutive laboratory control samples with acceptable levels of precision and accuracy. The laboratory shall determine the acceptable limits for precision and accuracy prior to analysis. The laboratory shall tabulate or be able to readily retrieve four (4) consecutive passing laboratory control samples (LCS) for each method for each analyst each year;
4. A documented process of analyst review using quality control (QC) samples (trending). QC samples can be reviewed to identify patterns for individuals or groups of analysts and determine if corrective action or retraining is necessary; or
5. If a) through d) are not technically feasible, then analysis of real-world samples with results within predefined acceptance criteria (as defined by the laboratory or method) shall be performed.

I.3 Calibration

Section 23.2.2 includes information on calibration of support equipment. This Section covers calibration of analytical equipment.

Initial instrument calibration and continuing instrument calibration verification are an important part of ensuring data of known and documented quality. If more stringent calibration requirements are included in a mandated method or by regulation, those calibration requirements override any requirements outlined here or in laboratory SOPs. Generally, procedures and criteria regarding instrument calibrations are provided in test methods SOPs.

I.3.1 Initial Instrument Calibration

- Records:

  Initial instrument calibration includes calculations, integrations, acceptance criteria, and associated statistics referenced in the test method SOP.

  Sufficient raw data records are collected to allow reconstruction of the initial instrument calibration. These include, at a minimum, calibration date, test method, instrument, analysis date, analyte names, analysts signature or initials, concentration and response, calibration curve or response factor, or unique equation or coefficient used to reduce instrument responses to concentration. Calibration date and expiration date (when recalibration is due) is documented for equipment requiring calibration, where practicable (see Section 23.1).

- Number of Standards and Concentrations:

  If the reference or mandated method does not specify the number of calibration standards to use, the minimum number is three, not including blanks or a zero standard.

  For instrumentation where single point calibration is recommended by manufacturer's instructions, such as with some ICP and ICP/MS technologies (with a zero and single point calibration), the following apply:

  a) For single point plus zero blank calibrations, the zero point and the single point standard are analyzed prior to the analysis of samples, and the linear range of the instrument established by analyzing a series of standards, one of which is at the lowest quantitation level.
  b) Zero blank and single point calibration standards are analyzed with each analytical batch for methods where they are specified.
  c) A standard corresponding to the limit of quantitation is analyzed with each analytical batch and must meet established acceptance criteria when using single point plus zero blank calibrations.
  d) The linearity of single point plus zero blank calibrations is verified at a frequency established by the method or the manufacturer.

  The lowest calibration standard is the lowest concentration for which quantitative results can be reported without qualification. The lowest calibration standard is at or below the Limit of Quantitation (LOQ) and is greater than the Limit of Detection. Results that are less than the LOQ are considered to have increased uncertainty, and are either reported with a qualifier code or explained in the case narrative.

  The highest calibration standard is the highest concentration for which quantitative results can be reported. Data reported exceeding the highest calibration standard without dilutions is considered to have increased uncertainty and are reported with a qualifier code or reanalyzed and explained in the case narrative.

- Evaluation, Verification and Corrective Action

All initial instrument calibrations are verified with a standard obtained from a second source traceable to a national standard when commercially available. If a second source is not available, a standard prepared from a different lot may be used.

Criteria for the acceptance of an initial instrument calibration is established (e.g., correlation coefficient or relative percent difference) and defined in the test method SOP. The criteria used are appropriate to the calibration technique.

Where appropriate, the laboratory has manual integration procedures in the Manual Integration training presentation that are adhered to when evaluating calibration data.

Any samples that are analyzed after an unacceptable initial calibration are re-analyzed or the data are reported with qualifiers, appropriate to the scope of the unacceptable condition (see Section 12 – "Control of Nonconforming Environmental Testing").

Quantitation is always determined from the initial calibration unless the test method or applicable regulations require quantitation from the continuing instrument calibration verification.

Corrective actions are performed when the initial calibration results are outside acceptance criteria. Calibration points are not dropped from the middle of the curve unless the cause is determined and documented. If the cause cannot be determined, the calibration curve is re-prepared. If the low or high calibration point is dropped from the curve, the working curve is adjusted and sample results outside the curve are qualified.

I.3.2 Continuing Instrument Calibration

- Records

  The calculations and associated statistics for continuing instrument calibration are included or referenced in the test method SOP.

  Sufficient raw data records are retained to allow reconstruction of the continuing instrument calibration verification. Continuing instrument calibration verification records connect the continuing verification date to the initial instrument calibration.

  Where appropriate, the laboratory has manual integration procedures in the Manual Integration training presentation that are adhered to when evaluating calibration data.

- Frequency

  Calibration is verified for each compound, element, or other discrete chemical species. For multi-component analytes, such as aroclors, chlordane, toxaphene, or total petroleum hydrocarbons, a representative chemically related substance or mixture is used.

Calibration verifications are performed:

- at the beginning and end of each analytical batch, except for instances when an internal standard is used. For methods employing internal standards, one verification is performed at the beginning of the analytical batch. Some methods have more frequent CCV requirements (see specific SOPs). Many inorganic methods require the CCV to be analyzed after every 10 samples.
- whenever it is expected that the analytical system may be out of calibration or might not meet verification acceptance criteria.
- when the time period for calibration or the most recent calibration verification has expired.
- for all analytical systems that have a calibration verification requirement. Requirements can be found in the test method SOP. Many inorganic methods require the CCV to be analyzed after every 10 samples.

- Evaluation, Verification and Corrective Actions

  The validity of the initial calibration is verified prior to sample analysis by use of a continuing instrument calibration verification (CCV) standard. Acceptance criteria may be found in test method SOPs.

  Corrective action is initiated for CCV results that are outside of acceptance criteria (see Section 12 – "Control of Nonconforming Environmental Testing").

I.3.3 Unacceptable Continuing Instrument Calibration Verifications

If routine corrective action for continuing instrument calibration verification fails to produce a second consecutive (immediate) calibration verification within acceptance criteria, then a new calibration is performed or acceptable performance is demonstrated after corrective action with two consecutive calibration verifications.

For any samples analyzed on a system with an unacceptable calibration, some results may be useable if qualified and under the following conditions:

a) If the acceptance criteria are exceeded high (high bias) and the associated samples are below detection, then those sample results that are non-detects may be reported as non-detects.

b) If the acceptance criteria are exceeded low (low bias) and there are samples that exceed the maximum regulatory limit, then those exceeding the regulatory limit may be reported.

Appendix J

Standard Operating Procedures for Method Defined Parameters

J-1	LAB-OP-001-ALL MDP 1010A (ASTM D 93-79)
J-2	LAB-OP-002-ALL MDP 1020B (ASTM D 3278-78)
J-3	LAB-OP-00-ALL MDP 1311 PENDING
J-4	LAB-OP-005-ALL MDP 9010C
J-5	LAB-OP-007-ALL MDP 9040C and 9045D
J-6	LAB-OP-008-ALL MDP 9095B

US Ecology: All Facilities
Standard Operating Procedure (LAB)

ASTM D 93-79, Flash Point by Pensky-Martens Closed Cup Tester, FULL

SOP Number:	LAB-OP-001-ALL	**Issue Date:**	08/15/2007
Revision Number:	Rev. 1.2	**Effective Date:**	11/15/2018
DocuSigned by: Angela Kurlinski 9DC6589B14B054EC... (Technical Review)	11/14/2018 Date	DocuSigned by: Paul Canevaro 174C1AE6B6AF24B1... (Management Review)	11/13/2018 Date

1.0 Scope and Application

1.1 Method Objective and Analytes: This method is based on ASTM D 93-79. It utilizes the Pensky-Martens closed cup flash tester to determine the lowest finite temperature at which a material will flash. This method is used for determination of the ignitability characteristic.

1.2 Detection Limits: Temperature range, 40 °F to 230 °F[1]

1.3 Applicable Matrices: Liquid wastes and liquids containing non-filterable, suspended solids may be tested using this method.

2.0 Summary of Method

2.1 A brass test cup is filled with approximately 75 mL of the test sample and a cover is fitted over the cup. The sample is heated at a slow, constant rate with continual stirring. At regular intervals, an ignition source (test flame) is directed into the sample cup with simultaneous interruption of stirring. The flash point is reported as the lowest temperature at which introduction of the test flame ignites the vapor above the sample.

[1] ASTM Method 93-80 indicates a temperature range of 30 ºF to 360 °F; however, this is dependent on the thermometer chosen by each lab.

3.0 Comments

3.1 Deviations from Method: none

3.2 Interferences:

3.2.1 Blue halo effect: The application of the test flame may cause a blue halo or an enlarged flame prior to the actual flash point. The blue halo may turn yellow-orange. This is not a flash point and shall be ignored.

3.2.2 Flash point masking: Mixtures containing both flammable and nonflammable components may create flammable vapors without exhibiting a flash. This is most commonly seen with halogenated hydrocarbons. **WARNING:** This is a potential fire hazard.

3.2.3 Excessive moisture may generate steam and extinguish the test flame.

3.3 Helpful Hints:

3.3.1 Solvents that are used for cleaning and reference materials, as well as samples that have been tested are potential sources of pollution. They should be handled with care and discarded in accordance with all state and federal laws.

3.3.2 Once the decision is made to discard a sample, it becomes waste, possibly RCRA hazardous waste. Hazardous waste samples should be discarded in the appropriate waste accumulation receptacle.

3.3.3 Refer to the Laboratory Waste Disposal SOP and/or Waste Management / Pollution Prevention Program (QES-OP-007-ALL) for further guidance on disposal of used and unused samples, standards, and reagents.

4.0 Safety Issues

4.1 Method specific Warnings:

4.1.1 Never use unregulated gas to operate the flash tester.

4.1.2 Operate in a well-ventilated area such as in a fume hood to remove vapors emitted during the test.

4.1.3 Conduct flash tests either behind the fume hood sash or by use of a face shield

4.1.4 Heat resistant gloves should be worn; do not wear rubber gloves when igniting or applying the test flame.

4.1.5 Use caution when removing the cup from the furnace; hot surfaces may cause injury.

4.1.6 Be sure all hose fitting connections are secure before testing.

4.1.7 Gas source must be regulated between 0.50 to 1.0 PSI to the test flame assembly.

4.1.8 For flash point masking, see Section 3.2.2 above.

4.2 Chemical Contact:

4.2.1 Hazardous waste is often of an unknown nature at our facilities; therefore precautions should be taken on the assumption that waste samples may be corrosive and/or toxic through skin absorption. Safety glasses and gloves should be worn at all times. Additional personal protective equipment (PPE) may be necessary (such as a lab coat).

4.2.2 A reference file of Safety Data Sheets (SDS) is made available to all personnel involved in the chemical analysis. Laboratory personnel will be aware of the hazards associated with the chemicals used in this procedure.

4.2.3 For further guidance, refer to the Chemical Hygiene Plan (QES-PR-025-ALL) and to the Personal Protective Equipment Program (QES-PR-021-ALL) or equivalent documents[2].

4.3 Inhalation Exposure: Waste samples have the potential to emit potentially toxic and/or corrosive gases. Dusty wastes may easily become airborne and also create an inhalation hazard. Lab personnel

[2] All references to "equivalent documents" are only valid during integration of EQ and US Ecology. After integration, this reference will be removed.

should be aware of this potential hazard and that some samples may need to be opened and/or analyzed in a fume hood.

5.0 Sample Containers, Collection, Preservation, and Holding Times

5.1 EPA Holding times: 14 days

5.2 Glass container (filled to shoulder) 250 – 500 mL, Cool to 4 ºC

WARNING: Precautions must be taken to avoid the loss of volatile material. Keep the container tightly closed and do not transfer the specimen unless the temperature is ≤ 10 °C (20 °F) below the expected flash point. For a target temperature of 140°F, the temperature should be no more than 50 °C (120 °F) when the test begins.

5.3 Samples should be analyzed as soon as possible. If samples must be stored before analysis, they should be collected and preserved according to the sampling plan in the Facility RCRA Part B Permit and the Quality Assurance Manual (LAB-PR-001-ALL).

5.4 Reference Sample Shipping SOP (QES-OP-021-ALL) for further guidance.

6.0 Apparatus and Materials

6.1 Pensky-Martens Closed Cup Flash Point Tester[3], PN: K16200 or equivalent

6.2 Stirrer Motor[4], 115V, 60Hz, PN: K16220 or equivalent

6.3 Test Cup with handle[5], PN K16020 or equivalent

6.4 Thermometer Ferrule[6], PN: K145-8 or equivalent

6.5 ASTM 9C (9F) Thermometer, Range -5 to +110 ºC (20 to 230 ºF), NIST certify annually

6.6 Low pressure (0.50 – 1.0 PSI) natural gas supply

[3] Conforms to the specifications of: ASTM D93
[4] Conforms to the specifications of: ASTM D93
[5] Conforms to the specifications of: ASTM D93
[6] Conforms to the specifications of: ASTM D93

7.0 Reagents and Standards

7.1 Reagent grade chemicals will be used in all tests. Unless otherwise indicated, it is intended that all reagents will conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society, where such specifications are available. Other grades may be used, provided it is first ascertained that the reagent is of sufficiently high purity to permit its use without reducing the accuracy of the determination.

7.2 Reagents for Sample Collection, Preservation and Handling: Reference the Sample Shipping SOP (QES-OP-021-ALL).

7.3 Reagents for Method:

7.3.1 Cleaning solvent: Acetone, CAS 67-64-1

7.3.2 Cleaning solvent: Toluene anhydrous, 99.8%, CAS 108-88-3

7.4 Calibration Standards

7.4.1 *N*-decane, > 99%, CAS 124-18-5

7.4.2 *p*-Xylene anhydrous, > 99%, CAS 106-42-3

7.5 Standardization: Standardization temperatures are obtained by using a ASTM 9F Thermometer (20 – 230 °F) and certifying annually.

8.0 Procedure

8.1 Apparatus Preparation: Thoroughly clean and dry sample-contact parts with an appropriate cleaning solvent before starting the test.

8.2 Sample Preparation: For very viscous samples that do not contain volatile material, gently warm no more than necessary, until they become fluid. Heating should not exceed 17 ºC (30 ºF) below anticipated flashpoint.

8.3 Calibration and Method Procedure:

8.3.1 Before use and again on an annual basis, verify stirrer motor (Section 6.2) rotation rate. Rotation rate must fall within 90 – 120 rpm.

8.3.2 Transfer the sample to the test cup. At least 75 mL of sample is required for each test; the “fill” mark in the cup indicates volume needed.

8.3.3 Place lid, stirring blade, and jet assembly on the cup; align grooves.

8.3.4 Insert the thermometer. Make certain the thermometer is submersed into the sample without contacting the stirring blade; tighten ferrule lightly. For samples known to flash at lower temperatures, low-temperature thermometers may be preferable.

8.3.5 Ignite the test flame and adjust flame to ~$^{5}/_{32}$ in. (4-mm) diameter (bead on burner block provided for comparison) by turning the jetting valve on the burner block and/or by adjusting the gas feed valve attached to the base of the furnace.

8.3.6 Adjust the variable heat control until the temperature reading on the thermometer increases by 9 - 11 °F per minute. Turn the dial fully clockwise and back counter clockwise to set temperature (dial is non-linear).

8.3.7 Use power switch at the heater base to activate the stirrer motor. Set the rotation rate within 90 – 120 rpm.

8.3.8 When the temperature of the sample[7] reaches 17 ºC (30 ºF) to 28 ºC (50 ºF) below the expected flashpoint or the set point, test the flame.

8.3.9 Turn off stirrer motor before flame testing. Apply test flame at each temperature reading (in increments of 2 °F) up to 200 °F. The test flame should be lowered within one-half second and should remain in the lowered position for one second.

8.3.10 Record temperature at which flash occurs. If no flash occurs, record Flash Point at >200 °F.

8.4 Method Performance: The Pensky-Martens apparatus is evaluated annually over a five-day period. Individual labs run *p*-xylene and *n*-

[7] For highly viscous materials or those with suspensions of solids, gently heat the sample until it reaches a temperature that is 11 ºC (20 ºF) to 15 ºC (60 ºF) below the expected flashpoint. Turn the stirrer rotation rate to 250 ± 10 rpm.

decane each day for five days, record results, and determine the margin of error. Results of these studies are barometric pressure corrected and reported in °F (PM ASTM D93-IP34). Annual results are maintained by the Technical Manager.

8.4.1 Acceptable results:

8.4.1.1 *n*-decane: 77.7 ± 0.5 °F

8.4.1.2 *p*-xylene: 81.3 ± 1.1 °F

9.0 Calculations

9.1 Barometric Pressure Correction Factor: document ambient barometric pressure for the laboratory during run and correct final result as Flashpoint = F +0.060 (760 – P) where F is the observed flash point in degrees Fahrenheit and P is the ambient[8] barometric pressure in mm Hg.

10.0 Reporting

10.1 Report the barometric pressure corrected flash point in °F (PM[9] ASTM D93-IP34).

10.1.1 Example: 130 °F (PM ASTM D93-IP34)

11.0 QA/QC Requirements

11.1 Initial Demonstration of Capability: Each analyst performing regulatory work must complete an initial demonstration of capability prior to reporting any data using this method. Refer to the Quality Assurance Manual (LAB-PR-001-ALL) for guidance.

11.2 QA/QC Samples:

11.2.1 Laboratory Control Standard (LCS): p-Xylene will flash at 81.3 ± 1.1 °F; use this standard (or the manufacturer's recommendation) to verify apparatus functionality by carrying an aliquot through the procedure identified in Section 8.0. Recovery

[8] NOTE: Aneroid barometers, such as those at airports, often report temperature corrected for sea level readings rather than ambient pressure.
[9] PM stands for Pensky-Martins Closed Cup Flash Point

for this standard must fall within 10% (for p-Xylene it must flash between 72.9 and 89.1 degrees Fahrenheit).

11.2.2 Sample Duplicate: Must be analyzed per analytical sequence or per every ten samples. Relative Percent Difference (RPD) between a sample result and its duplicate result must be ≤ 20%. See the Quality Assurance Manual (LAB-PR-001-ALL) for calculated RPD.

11.3 Acceptance Criteria (Precision and Accuracy)

11.3.1 Refer to the Quality Assurance Manual (LAB-PR-001-ALL).

11.4 Corrective Action Procedures

11.4.1 Rerun the LCS to verify apparatus functionality.

11.4.2 Verify stir motor (Section 6.2) rotation rate. Rotation rate must fall within 90 – 120 rpm.

11.4.3 Reference the Instrument guidebook for trouble-shooting, maintenance, and replacement parts.

11.5 For further guidance, refer to the Quality Assurance Manual (LAB-PR-001-ALL) for corrective action procedures.

12.0 Definitions

12.1 Flash – The appearance of a flame that instantaneously propagates itself over the entire surface of the test specimen.

12.2 Flash Point – The lowest temperature at which a volatile material can vaporize to form an ignitable mixture in air.

12.3 Finite temperature – the numeric temperature at which a sample will flash.

12.4 For more definitions, refer to the glossary section of Quality Assurance Manual (LAB-PR-001-ALL).

13.0 REFERENCES

13.1 ASTM D93-79, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester, ASTM International, West Conshohocken, PA, 1979, www.astm.org

13.2 "Pensky-Martens Closed-Cup Method for Determining Ignitability", Method 1010, Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Revision 0, September 1986.

13.3 Methods for Chemical Analysis of Waster and Wastes: U.S. Environmental Protection Agency. Office of Research and Development. Environmental Monitoring and Support Laboratory. ORD Publication Offices of Center for Environmental Research Information: Cincinnati, OH, 1983; EPA-600/4-79-020.

13.4 Rohrbough, W.G., et. al., Reagent Chemicals, American Chemical Society Specifications, 7th edition; American Chemical Society: Washington, DC, 1986.

14.0 Internal Method Review

Record of Revision		
Revision No.	**Purpose of revision**	**Effective date**
-	ORIGINAL – Envirite of Ohio (ISGLAB-1015)	08/15/07
1.0	COMPARED to ASTM 93-79 ADDED NELAC requirements	9/28/17
1.1	IMPLEMENTED as Lab MS Standard	10/17/17
1.2	Open Comment Period Review • Section 4 - Updated from MSDS to SDS • Section 7 / Definitions - Removed reagent: ASTM Type II Water • Section 7.5 Added 'ASTM 9F' • Section 8.4 - Changed Laboratory Supervisor to Technical Manager • Section 11 – clarified the requirement for DOC applies to analyst performing regulatory work. • Section 11 - Removed reference to obsolete document LAB-PR-003-ALL Demonstration of Capability. This is now found in	11/15/18

	the QAM. • Section 11.2.1 - Added manufacturer's recommendation	

15.0 Tables, Diagrams, Flowcharts, and Validation Data:

15.1 ASTM D 93-34 Annex A1. Apparatus Specifications

US Ecology: All Facilities
Standard Operating Procedure (LAB)

ASTM D 3278 – 78, Flash Point of Liquids by Small Scale Closed-Cup Apparatus, FULL

SOP Number:	LAB-OP-002-ALL	**Issue Date:**	11/09/06
Revision Number:	Rev. 1.3	**Effective Date:**	11/15/18
DocuSigned by: Brittany Paglia 307F81A729E8B4A4... (Technical Review)	11/13/2018 Date	DocuSigned by: Paul Canevaro 7AC1AF6B6AF24B1... (Management Review)	11/13/2018 Date

1.0 Scope and Application

1.1 Method Objective and Analytes: This method is based on ASTM D 3278 – 78 Method A. It utilizes a Small Scale Closed-Cup Apparatus to determine whether a material has a specific flash point of ≤ 60 °C (140 °F). This method is used to verify that the material does / does not carry the ignitability characteristic[1].

1.2 Detection Limits: Specified Temperature, ≤ 60 °C (140 °F) at 760 mm Hg with viscosity lower than 150 St at 25 °C (77°F)

1.3 Applicable Matrices: Liquid and high-viscosity waste materials.

2.0 Summary of Method

2.1 An aliquot of sample is added to a tightly closed test cup via syringe (liquid samples) or directly (high-viscosity samples) and tested at a specified temperature for a flash / no flash result.

[1] Material may be submitted by Operations or Regulatory for flashpoint verification at a different set point. As such, the specific flash point will need to be changed accordingly and documented. Follow all procedures but modify the set point and QC check standard(s) appropriately. For example, for verification of a NFPA Class 1A liquid, the flash point would be set to 73 °F.

3.0 Comments

3.1 Deviations from Method:

3.1.1 ASTM D 3278 – 78 specifies use of Setaflash Closed Tester. This SOP instead allows the use of an equivalent small scale closed-cup apparatus.

3.1.2 ASTM D 3278 – 78 Section 5.1, specifies use of the p-xylene reference standard. This SOP instead allows the use of a Flash point reference standard that flashes at or around 60 °C (140 °F).

3.2 Interferences:

3.2.1 Blue halo effect: The application of the test flame may cause a blue halo or an enlarged flame prior to the actual flash point. This is not a flash point and shall be reported as a No Flash.

3.2.2 Flash point masking: Mixtures containing both flammable and nonflammable components may create flammable vapors without exhibiting a flash. This is most commonly seen with halogenated hydrocarbons. **WARNING:** This is a potential fire hazard.

3.2.3 Generation of H_2 gas: If the closed-cup apparatus is made of aluminum, caustic samples may react with the cup generating flammable H_2 gas. H_2 gas will flash causing a false positive. Method ASTM D 93-79 should be used to determine flashpoint.

3.3 Helpful Hints:

3.3.1 Once the decision is made to discard a sample, it becomes waste, possibly RCRA hazardous waste. Hazardous waste samples should be discarded in the appropriate waste accumulation receptacle.

3.3.2 Refer to the Laboratory Waste Disposal SOP and/or Waste Management / Pollution Prevention Program (QES-OP-007-ALL) for further guidance on disposal of used and unused samples, standards, and reagents.

4.0 Safety Issues

4.1 Method specific Warnings:

4.1.1 Do not recharge the gas tank near an open flame, including the pilot or test flame.

4.1.2 Never use unregulated gas to operate the flash tester.

4.1.3 Operate in a well-ventilated area such as in a fume hood to remove vapors emitted during the test.

4.1.4 Conduct flash tests either behind the fume hood sash or by use of a face shield.

4.1.5 Do not store combustible material near the flash tester.

4.1.6 In case of emergency, make sure adequate fire suppression equipment is available and ready for use.

4.2 Chemical Contact:

4.2.1 Hazardous waste is often of an unknown nature at our facilities; therefore precautions should be taken on the assumption that waste samples may be corrosive and/or toxic through skin absorption. Safety glasses and gloves should be worn at all times. Additional personal protective equipment (PPE) may be necessary (such as a lab coat or face shield).

4.2.2 A reference file of Safety Data Sheets (SDS) is made available to all personnel involved in the chemical analysis. Laboratory personnel will be aware of the hazards associated with the chemicals used in this procedure.

4.2.3 For further guidance, refer to the Chemical Hygiene Plan (QES-PR-025-ALL) and to the Personal Protective Equipment Program (QES-PR-021-ALL) or equivalent documents[2].

4.3 Inhalation Exposure: Waste samples have the potential to emit potentially toxic and/or corrosive gases. Lab personnel should be aware

[2] All references to "equivalent documents" are only valid during integration of EQ and US Ecology. After integration, this reference will be removed.

of this potential hazard and that some samples may need to be opened and/or analyzed in a fume hood.

5.0 Sample Containers, Collection, Preservation, and Holding Times

5.1 EPA Holding times: 14 days

5.2 Glass or HDPE container, 25 mL, Cool to 4 ºC

WARNING: Precautions must be taken to avoid the loss of volatile material. Keep the container tightly closed and do not transfer the specimen unless the temperature is ≤ 10 °C (20 °F) below the expected flash point. For a target temperature of 140°F, the temperature should be no more than 50 °C (120 °F) when the test begins.

5.3 Samples should be analyzed as soon as possible. If samples must be stored before analysis, they should be collected and preserved according to the sampling plan in the Facility RCRA Part B Permit and the Quality Assurance Manual (LAB-PR-001-ALL).

5.4 Reference Sample Shipping SOP (QES-OP-021-ALL) for further guidance.

6.0 Apparatus and Materials

6.1 Rapid Flash Closed-Cup Flash Point Tester[3], PN: K16500 or equivalent

6.2 Thermometer, small-scale with no more than 0.25 °C scale error[4]

6.3 Glass or disposable syringe[5], 2 ± 0.1 mL capacity at 25ºC (77ºF)

6.4 Aluminum cooling block[6], PN K16020 or equivalent

6.5 Barometer[7], PN: K145-8 or equivalent

6.6 Heat transfer paste

6.7 analytical balance capable of measuring to the nearest 0.1 g

[3] Conforms to the specifications of: ASTM D 3278
[4] The temperature range is dependent on the thermometer chosen by each lab.
[5] Conforms to the specifications of: ASTM D 3278
[6] Conforms to the specifications of: ASTM D 3278
[7] Conforms to the specifications of: ASTM D 3278

6.8 sample boat

6.9 absorbent tissues or pipe cleaners

7.0 Reagents and Standards

7.1 Reagent grade chemicals will be used in all tests. If available, reagents will conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society.

7.2 Reagents for Method:

7.2.1 Cleaning solvent: Acetone, CAS 67-64-1

7.2.2 Fuel source, such as Butane

7.3 Check Standards (tester accuracy):

7.3.1 *p*-Xylene anhydrous, > 99%, CAS 106-42-3 OR a Flash point reference standard that flashes at or around the appropriate target flash point. For ignitability characteristic, this would be 60 °C (140 °F).

7.3.2 *n*-butanol, > 99.4%, CAS 71-36-3

7.4 Standardization: Standardization temperatures are obtained by using a Thermometer within the recommended range and certifying annually.

8.0 Procedure

8.1 Initial and Continuous Apparatus Verification:

8.1.1 Using a heat transfer paste, insert thermometer into pocket.

8.1.2 Adjust the temperature set point to 98 ºF. For instructions on adjusting the temperature set point, reference the manufacturer's instructions.

8.1.3 Following the steps outlined in Section 8.3 run a duplicate analysis of *p*-Xylene or *n*-butanol. Determine the mean of the results[8]. The result should be 27.2 ± 0.8 ºC (81 ± 1.5 ºF) for *p*-Xylene or 36.7 ± 0.8 ºC (98 ± 1.5 ºF) for *n*-butanol. If results are

[8] Account for the Barometric Pressure Correction Factor given in Section 9.0

outside of this range, check to see if the thermometer is surrounded by an adequate amount of heat transfer paste.

8.1.4 Record the result and maintain a record. This test should be conducted annually or anytime the thermometer is removed from the pocket and replaced.

8.2 Sample Preparation:

8.2.1 For a liquid sample, use a clean, dry syringe to collect 2 mL of sample. For a sample with high viscosity, use a balance to weight out 4.0 g of sample, adjusting for the weight of the sample boat.

8.2.1.1 **NOTE:** The balance calibration shall be verified prior to use.

8.3 Method Procedure[9]:

8.3.1 Inspect instrument for cleanliness. If necessary, use an absorbent tissue or pipe cleaner to clean the instrument.

8.3.2 Lock the cover lid and switch the heater on.

8.3.3 Verify that the temperature set point is at 60 °C (140 °F). If not, reference the manufacturer's instructions. The heater signal light should glow RED until the specified temperature is reached.

8.3.4 Record the ambient barometric pressure in mm Hg and calculate the specification temperature using the Barometric Pressure Correction Factor in Section 9.1. If necessary, adjust the specification temperature.

8.3.5 After the target temperature has been obtained (NOTE: heater signal light will turn off), indicating that the test-cup is stabilized, prepare the sample following Section 8.2.1 above.

8.3.5.1 For liquid samples, insert the tip of the syringe into the sample filling orifice and slowly inject the sample taking care not to lose any material.

[9] Method Procedure should also be followed when checking the accuracy of the tester.

8.3.5.2 For high viscosity samples, raise the lid and push 4.0 g of sample into the cup, taking care not to lose any material. Immediately close the cup tightly. This method does not accommodate solids.

8.3.6 Tightly close the lid.

8.3.7 Set the timer on the unit by pressing the timer switch to “1 min”.

8.3.8 Turn on the test and pilot flames by opening the valve on the gas tank and the in-line valve. Verify that the test flame size matches the size of the flame gate. This should be $^{5}/_{32}$ in. (4-mm) in diameter. If this has not already been set, reference the manufacturer’s instructions for assistance.

8.3.9 After the timer has elapsed, verify that the specification temperature has been reached and is stabilized. If so, apply the test flame by slowly opening and closing the slide while watching for a flash. The test should take no more that 2.5 seconds.

8.3.10 Record the results as a Flash / No Flash.

8.3.11 Turn off the test and pilot flame.

8.3.12 Once the flame has been applied, the sample is spent. Discard the sample and clean the test cup using absorbent tissue or pipe cleaner.

8.3.13 For glass syringe, clean with acetone, rinse with appropriate solvent, and air dry with the plunger removed.

8.3.14 If necessary, use a new aliquot for repeat sampling.

8.4 Method Performance: NONE

9.0 Calculations

9.1 Barometric Pressure Correction Factor: document ambient barometric pressure for the laboratory prior to the run and correct the specified flash point by using the equation: Flashpoint = S +0.060 (760 – P) where S is the specified flash point in degrees Fahrenheit and P is the ambient barometric Pressure in mm Hg.

10.0 Reporting

10.1 Report as, Flash / No Flash via Rapid Flash tester (or equivalent) at 60 °C (140 °F) OR at the target set point requested by Operations / Regulatory.

11.0 QA/QC Requirements

11.1 Demonstration of Capability: Each analyst performing regulatory work must complete an initial demonstration of capability prior to reporting any data using this method and an annual DOC thereafter. Refer to the Quality Assurance Manual (LAB-PR-001-ALL) for guidance.

11.2 QA/QC Samples:

11.2.1 Laboratory Control Standard (LCS): At least monthly (or if the thermometer becomes unseeded), use a flash point reference standard that flashes at or around 60 °C (140 °F) to verify apparatus functionality by carrying an aliquot through the procedure identified in Section 8.0. If running test at a different set point, select an appropriate LCS. This must be documented.

11.3 Acceptance Criteria (Precision and Accuracy)

11.3.1 Refer to Section 11.2 above and to the Quality Assurance Manual (LAB-PR-001-ALL).

11.4 Corrective Action Procedures:

11.4.1 Verify that the apparatus and syringe is clean.

11.4.2 Remove the thermometer and check to see if the thermometer is surrounded by an adequate amount of heat transfer paste.

11.4.3 Rerun the LCS to verify apparatus functionality.

11.4.4 Reference the instrument manual for trouble-shooting, maintenance, and replacement parts.

11.4.5 For further guidance, refer to the Quality Assurance Manual (LAB-PR-001-ALL) for corrective action procedures.

12.0 Definitions

12.1 Flash – The appearance of a flame that instantaneously propagates itself over the entire surface of the test spec

12.2 Flash Point – The lowest temperature at which a volatile material can vaporize to form an ignitable mixture in air.

12.3 For more definitions, refer to the glossary section of Quality Assurance Manual (LAB-PR-001-ALL).

13.0 REFERENCES

13.1 D3278-78, Standard Test Methods for Flash Point of Liquids by Setaflash Closed Tester, ASTM International, West Conshohocken, PA, 1978, www.astm.org

13.2 Methods for Chemical Analysis of Waster and Wastes: U.S. Environmental Protection Agency. Office of Research and Development. Environmental Monitoring and Support Laboratory. ORD Publication Offices of Center for Environmental Research Information: Cincinnati, OH, 1983; EPA-600/4-79-020.

13.3 Rohrbough, W.G., et. al., Reagent Chemicals, American Chemical Society Specifications, 7th edition; American Chemical Society: Washington, DC, 1986.

14.0 Internal Method Review

Record of Revision		
Revision No.	**Purpose of revision**	**Effective date**
-	ORIGINAL – EQ Detroit	11/9/2006
-	ORIGINAL – EQ Resource Recovery	9/21/2007
1.0	MERGED originals COMPARED to ASTM D 3278 - 96(2011) ADDED NELAC requirements	3/16/2015
1.1	IMPLEMENTED as Lab MS Standard	9/1/2015
1.2	COMPARED to ASTM D 3278 – 78, updated method reference, updated document control numbers, removed Chain of Review	10/17/17

1.3	Open Comment Period Review • Section 4 - Updated from MSDS to SDS • Section 7 / Definitions - Removed reagent: ASTM Type II Water • Section 7.3 – changed from calibration to check standard • Section 8.3 – removed 'calibration', added Footnote 9 • Section 11 – clarified the requirement for DOC applies to analyst performing regulatory work. • Section 11 - Removed reference to obsolete document LAB-PR-003-ALL Demonstration of Capability. This is now found in the QAM.	11/15/18

15.0 Tables, Diagrams, Flowcharts, and Validation Data

15.1 See D 3278-78 Annex A1. Apparatus Specification

15.2 See D 3278-78 Annex A2. Cooling Block

US Ecology: All Facilities
Standard Operating Procedure (LAB)

SW-846 Method 9010C Total and Amenable Cyanide: Distillation, FULL

SOP Number:	LAB-OP-005-ALL	**Issue Date:**	02/19/02
Revision Number:	Rev. 1.2	**Effective Date:**	11/15/18
DocuSigned by: jake danko 510F140D81BD400... (Technical Review)	11/15/2018 Date	DocuSigned by: Paul Canevaro 74C1AF6B6AF24B1... (Management Review)	11/13/2018 Date

1.0 Scope and Application

1.1 Method Objective and Analytes: This SOP is based on EPA SW-846 Method 9010C. It utilizes a reflux-distillation procedure to extract soluble cyanide salts and insoluble cyanide complexes prior to determination. Determination procedures can be found in LAB-OP-006-ALL Cyanide Determination.

1.2 Detection Limits: Detection limits are given in LAB-OP-006-ALL Cyanide Determination.

1.3 Applicable Matrices: wastewaters and soil extracts

2.0 Summary of Method: Cyanide, as hydrocyanic acid (HCN), is released from the sample by means of a reflux-distillation. It is captured into an alkaline scrubber solution containing sodium hydroxide solution.

3.0 Comments

3.1 Deviations from Method:

a. EPA SW-846 Method 9010C Section 7.1.1 specifies, *"This test must be performed under amber light."* This SOP instead allows for use of an amber flask or aluminum foil to protect the sample from UV light.

b. EPA SW-846 Method 9010C Section 3.2.1 specifies the use of sodium arsenite as a dechlorinating agent. Due to the hazards associated with this compound an alternate dechlorinating agent may be used.

3.2 Interferences:

3.2.1 Chlorine: As an oxidizing agent, chlorine will decompose cyanide complexes. The possibility of this interference is removed by reducing chlorine to chloride through the addition of sodium arsenite prior to preservation.

3.2.2 Sulfide: The possibility of this interference is removed by precipitating the sulfide through the addition of bismuth nitrate prior to distillation.

3.2.3 Nitrate / Nitrite (> 10 mg/L): During distillation, oximes may be formed when nitrous acid reacts with organic compounds. Oximes will decompose, generating HCN and resulting in excessively high HCN results. This interference is possible when nitrate / nitrite levels are > 10 mg/L AND certain organic compounds are present. The possibility of this interference is removed through the addition of sulfamic acid prior to distillation.

3.2.4 Thiocyanate: > 10 mg/L

3.2.5 Fatty acids, detergents, surfactants: This interference is possible when the compounds are present in high concentrations. The interference may mask the endpoint of the titration (see LAB-OP-006-ALL Cyanide Determination). The possibility of this interference is removed through extraction with isooctane, hexane, or chloroform. First, reduce the pH to 6 – 7 with 1.6M acetic acid then use a solvent volume equal to 20% of the sample volume to extract the fatty acids, detergents, or surfactants. When complete, immediately raise the pH to above 12 with 50% NaOH solution.

WARNING! Extraction may produce lethal HCN gas. Avoid multiple extraction. Avoid long contact time at low pH.

3.3 Helpful Hints:

3.3.1 Assure that the apparatus is assembled securely before the addition of reagents to the 1L boiling flask. This will prevent any premature loss of HCN.

3.3.2 All samples and analytical standards will be disposed of in accordance with all local, state and federal regulatory requirements. Particular care must be taken with any cyanide containing material. Refer to Section 4.0 on Safety Issues.

3.3.3 Once the decision is made to discard a sample, it becomes waste, possibly RCRA hazardous waste. Hazardous waste samples should be discarded in the appropriate waste accumulation receptacle.

3.3.4 Refer to the Laboratory Waste Disposal SOP and/or Waste Management / Pollution Prevention Program (QES-OP-007-ALL) or equivalent documents[1] for further guidance on disposal of used and unused samples, standards, and reagents.

4.0 Safety Issues

4.1 Method specific Warnings:

4.1.1 **CAUTION:** Because of toxicity, use care in manipulating cyanide-containing samples. Process in a hood or other well-ventilated area. Avoid contact, inhalation, or ingestion. Any cyanide solution, including standards must also be treated with the same caution. **ACIDIFIED CYANIDE SOLUTIONS WILL GENERATE HCN WHICH IS EXTREMELY TOXIC AND POTENTIALLY LETHAL**.

4.1.2 Laboratory personnel will be familiar with Safety Data Sheets (SDSs) for all chemicals with which they work. Laboratory personnel must have OSHA Hazard Communication training or its equivalent to be aware of the hazards associated with the chemicals which are used in this procedure.

4.2 Chemical Contact:

[1] All references to "equivalent documents" are only valid during integration of EQ and US Ecology. After integration, this reference will be removed.

4.2.1 Hazardous waste is often of an unknown nature at our facilities; therefore precautions should be taken on the assumption that waste samples may be corrosive and/or toxic through skin absorption. Safety glasses and gloves should be worn at all times. Additional personal protective equipment (PPE) may be necessary (such as a lab coat).

4.2.2 A reference file of Safety Data Sheets (SDS) is made available to all personnel involved in the chemical analysis. Laboratory personnel will be aware of the hazards associated with the chemicals used in this procedure.

4.2.3 For further guidance, refer to the Chemical Hygiene Plan (QES-PR-025-ALL) and to the Personal Protective Equipment Program (QES-PR-021-ALL) or equivalent documents.

4.3 Inhalation Exposure: Waste samples have the potential to emit potentially toxic and/or corrosive gases. Dusty wastes may easily become airborne and also create an inhalation hazard. Lab personnel should be aware of this potential hazard and that some samples may need to be opened and/or analyzed in a fume hood.

5.0 Sample Containers, Collection, Preservation, and Holding Times

5.1 Samples should be collected in plastic or glass containers

5.2 Test for interferences prior to preservation (see Section 8.0 Procedure).

5.3 Preserve aqueous samples by adding 50% sodium hydroxide until the pH is ≥12 at the time of collection. Soil samples do not require preservation.

5.4 Store samples at 4°C

5.5 When properly preserved, cyanide samples can be stored for up to 14 days prior to sample preparation steps

5.6 Solid and oily wastes may be extracted prior to analysis by Method 9013[2]. It uses a dilute NaOH solution (pH 12) as the extractant. This yields extractable cyanide.

[2] SW846 Method 9013 may not be used to satisfy the requirements of 40 CFR Part 268.48.

5.7 Samples should be analyzed as soon as possible. If samples must be stored before analysis, they should be collected and preserved according to the sampling plan in the Facility RCRA Part B Permit and the Quality Assurance Manual (LAB-PR-001-ALL).

5.8 Reference Sample Shipping SOP (QES-OP-021-ALL) for further guidance.

6.0 Apparatus and Materials

6.1 Reflux distillation apparatus (see Figure 1 and Figure 2): Wheaton PN #377160 or equivalent

6.1.1 1-L boiling flask with inlet tube and provision for condenser

6.1.2 270-mL Fisher-Milligan scrubber (PN #07-513) or equivalent

6.2 Hot plate stirrer or heating mantle

6.3 pH meter (specific ion electrode recommended)

6.4 Amber light, amber flask, or aluminum foil

6.5 Vacuum source

6.6 Refrigerator

6.7 Erlenmeyer flask or beaker, 500-mL

6.8 Pipette, 50-mL

6.9 Class A volumetric flasks – 1000, 250, and 100-mL

7.0 Reagents and Standards – Refer to LAB-WI-002-All Preparation of Working Solutions.

7.1 Reagent grade chemicals will be used in all tests. If available, reagents will conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society.

7.2 ASTM Type II Water as defined in Section 12 below.

7.3 Reagents for Sample Collection, Preservation and Handling:

7.3.1 Sodium arsenite (0.1N), $NaAsO_2$

7.3.2 Ascorbic acid crystals, $C_6H_8O_6$

7.3.3 Sodium hydroxide solution (50%), NaOH

7.3.4 Acetic acid (1.6M), CH_3COOH

7.3.5 2,2,4-Trimethylpentane, C_8H_{18}

7.3.6 Hexane, C_6H_{14}

7.3.7 Chloroform, $CHCl_3$

7.4 Reagents for Amenable Cyanide

7.4.1 Calcium hypochlorite solution (0.35M), $Ca(OCl)_2$

7.4.2 Sodium hydroxide solution (1.25N), NaOH

7.4.3 Sodium arsenite (0.1N)

7.4.4 Potassium iodide starch paper

7.5 Reagents for distillation method:

7.5.1 Sodium hydroxide (1.25N), NaOH

7.5.2 Bismuth nitrate (0.062M), $Bi(NO)_3 \bullet 5\ H_2O$

7.5.3 Sulfamic acid (0.4N), H_2NSO_3H

7.5.4 Sulfuric acid (18N), H_2SO_4

7.5.5 Magnesium chloride solution (2.5M), $MgCl_2 \bullet 5H_2O$

7.5.6 Lead acetate paper

7.5.7 Stock potassium cyanide solutions – See LAB-OP-006-ALL Cyanide Determination

7.6 Calibration Standards: See LAB-OP-006-ALL Cyanide Determination

7.7 Standardization: See LAB-OP-006-ALL Cyanide Determination

8.0 Procedure

8.1 Sample dilution:

8.1.1 LDR[3] (non wastewater) samples: Weigh out 10-g and dilute sample to 500-mL with ASTM Type II water.

8.1.2 If necessary, other samples may be diluted at different volumes; however, the final volume shall remain at 500-mL.

8.2 Sample Preparation (Amenable CN): Since UV light may decompose certain compounds, this test must be performed under amber light, in an amber bottle, or in a bottle covered by aluminum foil. Two identical sample aliquots are required to determine cyanides amenable to chlorination.

8.2.1 To one 500-mL sample (or sample diluted to 500-mL) add calcium hypochlorite solution dropwise while agitating and maintaining the pH between 11 and 12 with 1.25N sodium hydroxide until an excess of chlorine is present as indicated by KI-starch paper turning blue. The sample will be subjected to alkaline chlorination by this step.

CAUTION: The initial reaction product of alkaline chlorination is the very toxic gas cyanogen chloride, therefore it is necessary that this reaction be performed in a hood.

8.2.2 Test for excess chlorine with KI-starch paper every 10-15 minutes. Add additional calcium hypochlorite solution as needed and maintain this excess for one hour with continuous agitation. A distinct blue color on the test paper indicates a sufficient chlorine level.

8.2.3 After one hour, add 1-mL increments of 0.1N sodium arsenite or other dechlorinating agent to the sample until the KI-starch paper shows no residual chlorine. Add 5-mL excess dechlorinating agent to ensure the presence of excess reducing agent.

8.3 Distillation procedure:

8.3.1 Place 500-mL of sample, or sample diluted to 500-mL, into a 1-L boiling flask

8.3.2 Add 50-mL of 1.25N NaOH to the gas scrubber. Connect the boiling flask, condenser, gas scrubber, and vacuum flask. Make

[3] 40 CFR Part 268.48 footnote # 4

sure all ground joints are greased and form a secure connection (use Keck clips if needed).

8.3.3 Turn on the water so that it flows through the cold fingers in the apparatus. The flow should be strong enough (and cold enough) to condense the vapors but not so strong that the pressure forces the tubing from the connections.

8.3.4 Connect the vacuum source to the apparatus. Slowly introduce the vacuum source to the apparatus by adjusting the valve. The vacuum should form a moderate amount of bubbles that fill ¼ to ½ (maximum) above the water column of the scrubber. As the sample heats up and starts to boil, adjustments may need to be required.

8.3.5 Add 50-mL of 0.062M bismuth nitrate through the air inlet tube to remove known or suspected sulfides. Rinse the air inlet tube with DI water. Allow the vacuum to mix contents of flask for three minutes.

8.3.6 Add 50-mL of 0.4N sulfamic acid through the air inlet tube to remove nitrate/nitrite (including bismuth nitrate). Rinse the inlet tube with DI water. Allow the vacuum to mix the contents of the flask for three minutes.

8.3.7 Slowly add 50-mL of 18N sulfuric acid through the air inlet tube. Rinse the tube with DI water. Allow the vacuum to mix the contents of the flask for three minutes.

8.3.8 Add 20-mL of 2.5M magnesium chloride through the air inlet tube. Do a final rinse of the inlet tube with DI water.

8.3.9 Turn on the heating mantle and bring the solution to a boil. Monitor the samples to prevent boil-overs or loss of pressurization. Adjust the vacuum flow as needed to maintain an adequate draw (¼ to ½ of the scrubber).

8.3.9.1 Reflux wastewater samples for one hour.

8.3.9.2 Non wastewaters (sludges and solids will reflux for 1 hour 15 minutes[3].

8.3.10 Turn off the heat and continue the airflow for at least 15 minutes. After cooling the boiling flask, close the vacuum source and disconnect the gas scrubber.

8.3.11 Transfer the solution from the scrubber into a 250-mL volumetric flask. Rinse the scrubber tube with DI water and add to the 250-mL flask. Bring to volume with DI water

8.3.12 Check for sulfide or chlorine contamination of the scrubber solution by testing it with lead acetate paper and potassium iodide paper, respectively. A positive sulfide test will turn the lead acetate paper brown or black. A positive chlorine test will turn the Potassium Iodide paper purple. Dispose of the scrubber solution in the appropriate lab waste container if positive chlorine is discovered. The sample will have to be re-prepared because chlorine interferes with the distillation process and cannot be compensated for in the coloring process.

8.3.13 Determine Total Cyanide Concentration of both the chlorinated and unchlorinated samples via LAB-OP-006-ALL Total and Amenable Cyanide Determination.

9.0 QA/QC Requirements

9.1 Initial Demonstration of Capability: Each analyst performing regulatory work must complete an initial demonstration of capability prior to reporting any data using this method. Refer to the Quality Assurance Manual (LAB-PR-001-ALL) for guidance.

9.2 QA/QC Samples:

9.2.1 Employ a minimum of one reagent blank per analytical batch or one in every 20 samples (process continuously) to determine if contamination or any memory effects are occurring

9.2.2 Analyze check standards with every analytical batch of samples. If the standards are not within 15% of the expected value then the samples must be reanalyzed.

9.2.3 Run one replicate sample for every 20 samples. A replicate sample is a sample brought through the entire sample preparation and analytical process. The CV of the replicates should be 20% or less.

9.2.4 Run one matrix spiked sample every 20 samples to check the efficiency of sample distillation. The matrix spiked sample is brought through the entire sample preparation and analysis process.

9.3 Acceptance Criteria (Precision and Accuracy): Refer to Section 11.2 above and to the Quality Assurance Manual (LAB-PR-001-ALL) for QC acceptance criteria.

9.4 Corrective Action Procedures:

9.4.1 Method specific CA: none

9.4.2 Reference the instrument manual for trouble-shooting, maintenance, and replacement parts.

9.4.3 For further guidance, refer to the Quality Assurance Manual (LAB-PR-001-ALL) for corrective action procedures.

10.0 Definitions

10.1 Amenable cyanide: inorganic cyanides that are present as either soluble salts or complexes and are responsive to chlorination.

10.2 Total cyanide: All cyanide species expect cyanate (CNO^-) and thiocyanate (SCN^-).

10.3 ASTM Type II Water - distilled or deionized water having a resistivity greater than or equal to 1 MΩ / cm, conductivity of less than 1.0 µS/cm at 298 K (25^{o}C), a maximum total matter content of less than 50 ug/L, sodium content < 5 ug/L, chlorides < 5 ug/L, and silica < 3 ug/L.

10.4 For more definitions, refer to the glossary section of Quality Assurance Manual (LAB-PR-001-ALL).

11.0 REFERENCES

11.1 “Total and Amenable Cyanide: Distillation”, Method 9010C, Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Revision 3, November 2004.

11.2 “Cyanide Extraction Procedure for Solids and Oils”, Method 9013A, Test Methods for Evaluating Solid Waste, SW-846, Revision 2, July 2014.

11.3 "Cyanide in Waters and Extracts Using Titrimetric and Manual Spectrophotometric Procedures", Method 9014, Test Methods for Evaluating Solid Waste, SW-846, Revision 1, July 2014.

11.4 Methods for Chemical Analysis of Waster and Wastes: U.S. Environmental Protection Agency. Office of Research and Development. Environmental Monitoring and Support Laboratory. ORD Publication Offices of Center for Environmental Research Information: Cincinnati, OH, 1983; EPA-600/4-79-020.

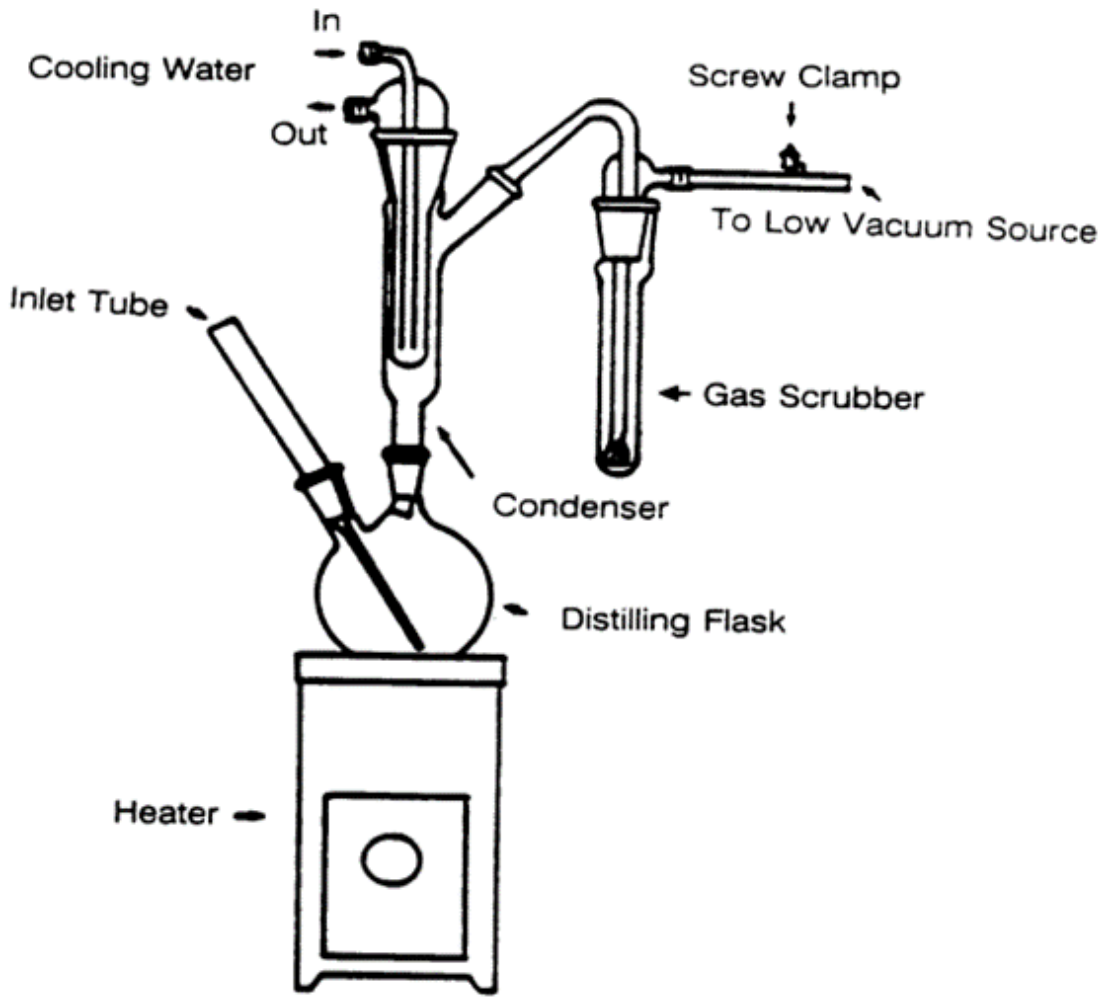
11.5 Rohrbough, W.G., et. al., Reagent Chemicals, American Chemical Society Specifications, 7th edition; American Chemical Society: Washington, DC, 1986.

12.0 Internal Method Review

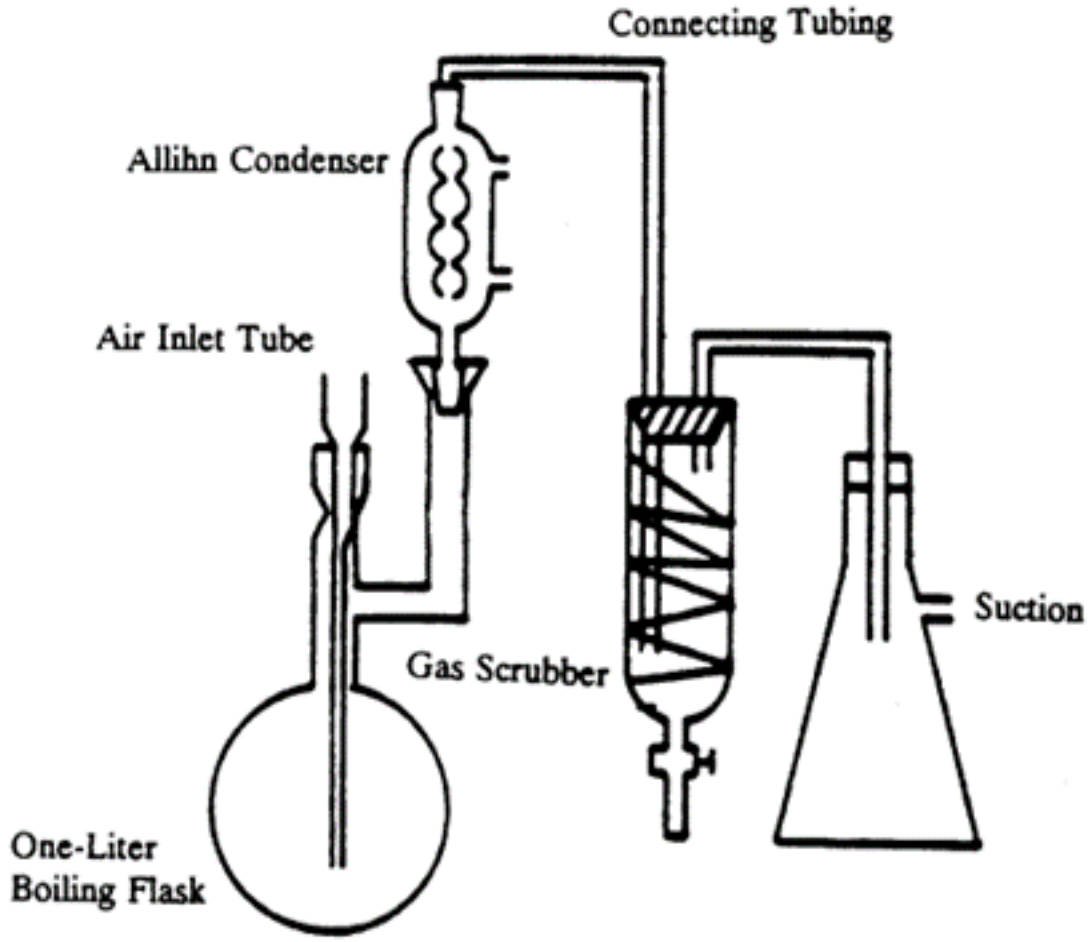
Record of Revision		
Revision No.	**Purpose of revision**	**Effective date**
-	ORIGINAL – EQ Detroit	02/19/02
-	ORIGINAL – Envirite of Ohio	9/21/2007
1.0	MERGED originals COMPARED to SW-846 EPA Method 9010C ADDED NELAC requirements	10/03/17
1.1	IMPLEMENTED as Lab MS Standard	10/17/17
1.2	Open Comment Period Review • Section 8.1.1 – added "non wastewater" description • Section 8.3.9 pending • Section 11 – clarified the requirement for DOC applies to analyst performing regulatory work. • Section 11 - Removed reference to obsolete document LAB-PR-003-ALL Demonstration of Capability. This is now found in the QAM.	11/15/18

13.0 Tables, Diagrams, Flowcharts, and Validation Data

13.1 Figure 1. Apparatus for Cyanide Distillation



13.2 Figure 2. Apparatus for Cyanide Distillation



US Ecology: All Facilities
Standard Operating Procedure (LAB)

SW-846 Method 9040C pH Electrometric Measurement and 9045D Soil and Waste pH, FULL

SOP Number:	LAB-OP-007-ALL	**Issue Date:**	10/16/13
Revision Number:	Rev. 1.2	**Effective Date:**	11/15/18
DocuSigned by: Ramiro Hinojosa 42DD691047DB4AE... (Technical Review)	11/13/2018 Date	DocuSigned by: Paul Canevaro 7A61AF6B6AE24B... (Management Review)	11/13/2018 Date

1.0 Scope and Application

1.1 Method Objective and Analytes: This method is based on EPA SW-846 Test Methods 9040C and 9045D for pH determination.

1.2 Detection Limits: 1 - 14 pH units

1.3 Applicable Matrices:

1.1.1 Aqueous wastes (9040C)

1.1.2 Multiphase wastes (liquid/liquid or solid/liquid) in which aqueous phase is at least 20% of the volume (9040C)

1.1.3 Solids, sludge, and non-aqueous liquids with less than 20% water (9045D)

2.0 Summary of Methods

2.1 A glass electrode is calibrated using a minimum of two standard solutions of known pH. The electrode is immersed in the sample until the pH reading stabilizes. For solids, sludge, and non-aqueous liquids, the sample is first mixed with reagent water.

3.0 Comments

3.1 Deviations from Method: NONE

3.2 Interferences:

3.2.1 Contamination: Errors will occur if the pH electrode becomes coated. If the electrode is coated with an oily material that will not rinse free, soak or rinse the electrode in 95% ethanol until the electrode is clean, and then rinse with reagent water. If the electrode is coated with sediment, grit, or looks dirty, soak the electrode in 0.1 M HCl for 30-60 minutes, rinse with reagent water and soak in the electrode storage solution for at least 30 minutes.

3.2.2 Temperature affects the pH electrode measurement in two ways:

- The pH electrode response changes at different temperatures. This interference is compensated for by using a pH meter with automatic temperature correction.
- The sample pH will change with temperature. This error is sample-dependent and cannot be controlled. Therefore, when measuring pH for compliance reporting (1st, 2nd, and 3rd pH's for TCLP, EF-2 pH, etc), the temperature at the time of analysis shall be reported along with the pH. See Section 10.0 below.

3.2.3 Very low or very high pH:

- The corrosively of concentrated acids and bases cannot be measured as pH measurement requires some water content.
    - Concentrated acids may give incorrectly high pH measurements. Measured pH values < 1 should be considered an estimate.
    - Concentrated bases may give an incorrectly low pH measurement because sodium ions can cause an interference with the electrode. Measured pH values above 10 should be considered an estimate unless a low-sodium-error electrode is used.

3.3 Helpful Hints:

3.3.1 The pH electrode storage and fill solution for the pH meter may contain silver chloride. They should be handled with care and discarded in accordance with all state and federal laws.

3.3.2 Once the decision is made to discard a sample, it becomes waste, possibly RCRA hazardous waste. Hazardous waste samples should be discarded in the appropriate waste accumulation receptacle.

Refer to the Laboratory Waste Disposal SOP and/ or Waste Management / Pollution Prevention Program (QES-OP-007-ALL) or equivalent documents[1] for further guidance on disposal of used and unused samples, standards, and reagents.

4.0 Safety Issues

4.1 Method specific Warnings: Samples may be water reactive. Use caution when adding water to solids or sludge for pH measurement.

4.2 Chemical Contact:

4.2.1 Hazardous waste is often of an unknown nature at our facilities; therefore precautions should be taken on the assumption that waste samples may be corrosive and/or toxic through skin absorption. Safety glasses and gloves should be worn at all times. Additional personal protective equipment (PPE) may be necessary (such as a lab coat).

4.2.2 A reference file of Safety Data Sheets (SDS) is made available to all personnel involved in the chemical analysis. Laboratory personnel will be aware of the hazards associated with the chemicals used in this procedure.

4.2.3 For further guidance, refer to the Chemical Hygiene Plan (QES-PR-025-ALL) and to the Personal Protective Equipment Program (QES-PR-021-ALL) or equivalent documents.

4.3 Inhalation Exposure: Waste samples have the potential to emit potentially toxic and/or corrosive gases. Dusty wastes may easily become airborne and also create an inhalation hazard. Lab personnel

[1] All references to "equivalent documents" are only valid during integration of EQ and US Ecology. After integration, this reference will be removed.

should be aware of this potential hazard and that some samples may need to be opened and/or analyzed in a fume hood.

5.0 Sample Containers, Collection, Preservation, and Holding Times

5.1 EPA Holding times:

5.1.1 Analyze pH immediately upon receipt by the laboratory. For liquid samples, the hold time is 15 minutes after time of sampling.

5.1.2 If solid samples must be stored before analysis, they should be collected according to the sampling plan in the Facility RCRA Part B Permit and the Quality Assurance Manual (LAB-PR-001-ALL).

5.2 Preservation (solid samples): Cool to 4 °C ± 2 °C

5.3 Reference Sample Shipping SOP (QES-OP-021-ALL) for further guidance.

6.0 Apparatus and Materials

6.1 pH meter with automatic temperature compensation (a thermometer may be used instead)

6.2 glass electrode

6.3 reference electrode (silver-silver chloride) or suitable electrode for sample type

NOTE: a combination electrode that incorporates measuring and reference functions may also be used.

6.4 glass beaker, 50 mL minimum

6.5 analytical balance capable of measuring to the nearest 0.1 g

6.6 magnetic stirrer and Teflon-coated stirring bar

6.7 Kimberly-Clark Kimwipes, or equivalent

7.0 Reagents and Standards

7.1 Reagent grade chemicals will be used in all tests. If available, reagents will conform to the specifications of the Committee on Analytical Reagents of the American Chemical Society.

7.2 Reagent Water as defined in Section 12 below.

7.3 Reagents for Sample Collection, Preservation and Handling: none

7.4 Reagents for Method:

7.4.1 pH electrode cleaning solutions: 95% ethanol or 0.1 M HCl

NOTE: Cleaning solutions should be discarded when they become visibly contaminated.

7.4.2 pH electrode storage solutions: see manufacturer's recommendation

7.4.3 pH electrode fill solutions (see manufacturer's recommendation)

7.5 Calibration Standards: A minimum of two pH standards, bracketing the expected pH of the samples, are required. They shall be NIST traceable and at least three pH units apart. For corrosivity characterization, the following standards are required:

7.5.1 pH 2.0 @ 25 ± 1 ºC for acidic material

7.5.2 pH 12.0 @ 25 ± 1 ºC for caustic material (this should be recorded)

NOTE: Discard standard buffers when the manufacturer assigned expiration date is reached.

7.6 Standardization: none

8.0 Procedure

8.1 Sample Preparation:

8.1.1 Aqueous wastes and multiphase wastes with > 20% water:

- Place sample or buffer solution in glass or plastic beaker. Enough material should be in the beaker to cover the sensing elements on the electrode (about ¾ inch).

- Add a magnetic stirrer to be used while measuring the pH. It is important that there is sufficient sample movement across the electrode sensing element.

8.1.2 Soil, solids, sludge, and non-aqueous liquids with <20% water:

- Add 20 g sample to a 50-mL beaker, add 20 mL reagent water, cover, and stir continuously for 5 minutes. If the sample absorbs all of the water, more reagent water may be added in 20 mL amounts until there is sufficient water for pH measurement.

- Allow the soil/solid suspension to stand long enough for particles to settle. For soil samples, the recommendation is 1 hour. For waste samples, the recommendation is 15 minutes. OR filter and centrifuge to separate the aqueous phase from the solid phase.

- Retain the aqueous phase for measurement.

- If there is an oily layer floating on the water, decant the oily phase before measuring the aqueous phase. **NOTE:** In rare cases, the aqueous phase may be the layer on top rather than on the bottom.

8.2 Calibration and Method Procedure: pH Meter

8.2.1 Calibrate each day the meter is used.

8.2.2 Calibrate prior to use with a minimum of two NIST traceable buffer solutions that bracket the expected pH of the samples and are a minimum of three pH units apart.

8.2.3 Follow the manufacturer's operating instructions for calibration.

8.2.4 After accounting for the manufacturer's operating instructions, remove the pH electrode from the storage solution, thoroughly rinse with reagent water, and gently wipe with "Kimwipes".

8.2.5 Place the electrode into the sample or buffer solution, along with a clean magnetic stirring bar.

8.2.6 For buffers:

- Keep measuring pH on successive portions of pH buffer solution until readings **differ by less than 0.05 pH units** of the expected buffer solution value. Two to three volume changes are usually sufficient.
- Rinse pH electrode and return to storage solution.
- Record the following data in a logbook:
    - pH result and temperature for each calibration buffer
    - Electrode efficiency, sometimes referred to as slope (must be between 90 – 105%)
    - initials and date of person performing the calibration
    - "Did not use" or a similar phrase may be written in the logbook to indicate that the meter was not used that day.

8.2.7 For samples:

- If the sample temperature is not within ± 2 ºC of the buffer solution, then correct the pH values.
- Measure the pH.
- Every 20 samples, run replicates to demonstrate reproducibility of results. For each replicate, keep measuring pH of successive portions of sample until readings **differ by less than 0.1 pH units**. Two to three volume changes are usually sufficient.
- Rinse pH electrode and return to storage solution.
- Record sample pH and temperature (See Section 10.0 below)
- For pH readings ≥ 12 control the sample temperature to 25 ± 1 ºC.

8.3 Method Performance: Refer to EPA Method 9040C Section 9.0

9.0 Calculations: Calibration slope determination, electrode efficiency, temperature correction, and pH calculations are performed internally by pH meter.

10.0 Reporting:

10.1 Report pH results to the nearest 0.1 pH unit and temperature to the nearest °C.

10.2 For soil samples: Report results as “soil pH measured in water at __ºC”.

10.3 For waste samples: Report results as “waste pH measured in water at _____ºC”.

10.4 For all other waste types: Report results as “pH at ___ºC”.

11.0 QA/QC Requirements

11.1 Initial Demonstration of Capability: Each analyst performing regulatory work must complete an initial demonstration of capability prior to reporting any data using this method. Refer to the Quality Assurance Manual (LAB-PR-001-ALL) for guidance.

11.2 QA/QC Samples:

11.2.1 pH buffer Check: check a calibration buffer every 10 samples

11.2.2 Duplicate Sample: Daily and/or one per batch of 20 samples

11.3 Acceptance Criteria (Precision and Accuracy):

11.3.1 Calibration standards: < ± 0.05 pH units of true value

11.3.2 Duplicate sample: < ± 0.1 pH unit

11.3.3 For further guidance, refer to Section 11.2 above and to the Quality Assurance Manual (LAB-PR-001-ALL) for QC acceptance criteria.

11.4 Corrective Action Procedures:

11.4.1 General:

- Clean electrode

- Replace buffer solution, allow solution to reach room temperature, perform buffer pH check
- Recalibrate meter
- Replace electrode

11.4.2 Sample temperature varies by > 2 ºC from buffer

- Verify that the pH meter's temperature compensating function is working properly.
- After verification, temperature adjustment of the sample may be required. Assure temperature compensation is used.

11.4.3 Duplicate sample has > ± 0.1 pH unit difference

- perform temperature check
- perform buffer pH check
- clean electrode

11.4.4 Reference the instrument manual for trouble-shooting, maintenance, and replacement parts.

11.4.5 For further guidance, refer to the Quality Assurance Manual (LAB-PR-001-ALL) for corrective action procedures.

12.0 Definitions

12.1 pH: measure of the hydrogen ion concentration of a solution.

12.2 buffer solution: A solution that resists changes in pH when small quantities of an acid or an alkali are added to it.

12.3 Reagent Water - Defined in EPA SW-846 Chapter 1.

12.4 For more definitions, refer to the glossary section of Quality Assurance Manual (LAB-PR-001-ALL).

13.0 REFERENCES

13.1 "pH Electrometric Measurement", Method 9040C, Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Revision 3, November 2004. "Soil and Waste pH", Method 9045D, Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Revision 3, November 2004.

13.2 "pH in Liquid and Soil", Method 9045D_1.CRF, Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Revision 01/21/2000.

13.3 1985 Annual Book of ASTM Standards, Vol. 11.01; "Standard Specification for Reagent Water"; ASTM: Philadelphia, PA, 1985; Method No.

13.4 Rohrbough, W.G., et. al., Reagent Chemicals, American Chemical Society Specifications, 7th edition; American Chemical Society: Washington, DC, 1986.

14.0 Internal Method Review

Record of Revision		
Revision No.	**Purpose of revision**	**Effective date**
-	ORIGINAL – US Ecology, Inc. Grand View, Rev. 0.0	NA
-	ORIGINAL – EQ Belleville, Rev. NA	10/16/2013
1.0	MERGED originals COMPARED to SW-846 Method 9040C, and 9045D ADDED NELAC requirements	2/16/15
1.1	IMPLEMENTED as Lab MS Standard	10/17/17
1.2	Open Comment Period • Section 2.1 – changed from three standards to 'minimum of two' • Section 8.2.5 – added requirement for magnetic stirring bar • Section 11 – clarified the requirement for DOC applies to analyst performing regulatory work. • Section 11 – Removed reference to obsolete document LAB-PR-003-ALL Demonstration of Capability. This is now found in the QAM. • Section 13 – removed reference	11/15/18

	to Method 9041A • Changed all references from ASTM Type II water to reagent water.	

15.0 Tables, Diagrams, Flowcharts, and Validation Data: NONE

US Ecology: All Facilities
Standard Operating Procedure (LAB)

SW-846 Method 9095B Paint Filter Liquids Test, FULL

SOP Number:	LAB-OP-008-ALL	**Issue Date:**	03/30/15
Revision Number:	Rev. 1.2	**Effective Date:**	11/15/18
DocuSigned by: Noel Bailey 662F204FEE7A41E... (Technical Review)	11/13/2018 Date	DocuSigned by: Paul Canevaro 7AC1AE6B6AE24B1... (Management Review)	11/13/2018 Date

1.0 Scope and Application

1.1 Method Objective and Analytes: This method is based on EPA SW-846 Method 9095B. It utilizes a paint filter to determine whether a representative sample of waste complies with 40 CFR 264.314 and 265.314. This method is used to determine the presence of free liquids and must be performed above the samples freezing point.

1.2 Detection Limits: Mesh number 60 +/- 5% (fine meshed size)

1.3 Applicable Matrices: waste materials

2.0 Summary of Method

2.1 A 100-ml or 100-g sample of representative waste is brought to room temperature and placed in a paint filter for 5-minutes. If any material passes through and drops from the filter, the material is deemed to contain free liquids.

3.0 Comments

3.1 Deviations from Method:

3.1.1 EPA Method 9095 (Rev. 2 November 2004), Section 3.2 states; *"Tests must be performed above the freezing point and can, but are not required to, exceed room temperature of 25 °C."* For the purpose of simplification, this SOP recommends that the test is conducted when the sample is above the freezing point at approximately room temperature of 25 °C.

3.1.2 EPA Method 9095B specifies use of a ring stand and ring to hold the paint filter. This SOP also allows use of a large beaker to both provide the support for the filter and to collect any potential liquids that drip from the filter. The beaker must be tall enough that the bottom tip of the filter does not touch the bottom of the beaker. See Section 8.22.2 below.

3.2 Interferences:

3.2.1 Filter media: Pieces of the filter may separate from the filter when exposed to alkaline materials.

3.2.2 Temperature: The test results may be affected if the test is conducted below the freezing point of any liquid in the sample. To prevent this, the test must be conducted above the materials freezing point and at room temperature of 25 °C.

3.3 Helpful Hints:

3.3.1 Once the decision is made to discard a sample, it becomes waste, possibly RCRA hazardous waste. Hazardous waste samples should be discarded in the appropriate waste accumulation receptacle.

3.3.2 Refer to the Laboratory Waste Disposal SOP and/or Waste Management / Pollution Prevention Program (QES-OP-007-ALL) or equivalent document[1] for further guidance on disposal of used and unused samples, standards, and reagents.

4.0 Safety Issues

4.1 Method specific Warnings: none

[1] [1] All references to "equivalent documents" are only valid during integration of EQ and US Ecology. After integration, this reference will be removed.

4.2 Chemical Contact:

4.2.1 Hazardous waste is often of an unknown nature at our facilities; therefore precautions should be taken on the assumption that waste samples may be corrosive and/or toxic through skin absorption. Safety glasses and gloves should be worn at all times. Additional personal protective equipment (PPE) may be necessary (such as a lab coat).

4.2.2 A reference file of Safety Data Sheets (SDS) is made available to all personnel involved in the chemical analysis. Laboratory personnel will be aware of the hazards associated with the chemicals used in this procedure.

4.2.3 For further guidance, refer to the Chemical Hygiene Plan (QES-PR-025-ALL) and to the Personal Protective Equipment Program (QES-PR-021-ALL) or equivalent documents[2].

4.3 Inhalation Exposure: Waste samples have the potential to emit potentially toxic and/or corrosive gases. Dusty wastes may easily become airborne and also create an inhalation hazard. Lab personnel should be aware of this potential hazard and that some samples may need to be opened and/or analyzed in a fume hood.

5.0 Sample Containers, Collection, Preservation, and Holding Times

5.1 EPA Holding times: Not applicable

5.2 A minimum of 100-mL or 100-g of representative waste must be collected. In order to collect a representative sample, a larger volume may be needed. If this is the case, the sample should be collected in increments of 100-ml or 100-g (i.e. 200, 300, 400, etc.)

5.3 Samples should be analyzed as soon as possible. If samples must be stored before analysis, they should be collected in a closed container at room temperature.

5.4 For more information reference the Facility RCRA Part B Permit and the Quality Assurance Manual (LAB-PR-001-ALL).

5.5 Reference Sample Shipping SOP (QES-OP-021-ALL) or equivalent document for further guidance.

6.0 Apparatus and Materials

6.1 Conical paint filter, mesh number 60 +/- 5%

6.2 Graduated cylinder or beaker, 100-mL or larger[3]

6.3 Large glass or plastic funnel, to support the paint filter in cases in which the filter alone is not capable of sustaining the sample. It must be large enough not to interfere with movement of any free liquids.

6.4 Ring stand and ring to support the funnel, if necessary

6.5 Scissors

6.6 Hammer or other crushing device

6.7 9.5 mm (0.375 inch) sieve

7.0 Reagents and Standards

7.1 None required

8.0 Procedure

8.1 Sample Preparation:

8.1.1 If necessary, allow sample to acclimate to temperature.

8.1.2 Sample size reduction (large material): Material which does not conform to the shape of the paint filter must be reduced in size. Using a clean and dry pair of scissors, cut the material into pieces smaller than 1 cm. Material should be capable of passing through a 9.5 mm (0.375 inch) standard sieve. Scrape all material from the scissors into the sample container.

8.1.3 Sample size reduction (brittle material): Brittle material larger than 1 cm may be gently crushed before placing into the filter. Material should be capable of passing through a 9.5 mm (0.375 inch) standard sieve. Scrape all material from the crushing device into the sample container.

[3] If a larger sample is needed in order to test a representative sample of waste then the graduated cylinder or beaker should be appropriately sized in multiples of 100 mL (i.e. 200 mL, 300 mL, etc.)

8.2 Method Procedure:

8.2.1 Assemble the test apparatus by placing the paint filter into the funnel then inserting the tip of the funnel through the ring into the graduated cylinder or beaker. See Section 15.1 below.

8.2.2 Alternatively, if a ring stand is not available, assemble the test apparatus by placing the paint filter into the funnel then placing the funnel into a large beaker. The beaker must be at least 100-mL and tall enough that the bottom tip of the funnel does not touch the bottom of the beaker.

8.2.3 Pour 100-ml or 100-g of representative waste of sample into the filter. (NOTE: To ensure that the sample is representative of the waste, a larger sample may be necessary. In this case, pour 100-ml or 100-g increments into the filter (i.e. 200, 300, 400, etc.). If the paint filter is not large enough and the risk of overflow is possible, then extend the sides of the filter by taping additional filter paper to the inside of the filter and above the mesh.

8.2.4 Allow sample to drain for 5 minutes into beaker

8.2.5 If any portion of the sample collects in the beaker in the 5-minute period, then the material is deemed to contain free liquids for purposes of 40 CFR 264.314 and 265.314.

8.3 Method Performance: none

9.0 Calculations: none

10.0 Reporting: Passing / Failing Paint filter test

11.0 QA/QC Requirements

11.1 Initial Demonstration of Capability: Each analyst performing regulatory work must complete an initial demonstration of capability prior to reporting any data using this method. Refer to the Quality Assurance Manual (LAB-PR-001-ALL) for guidance.

11.2 QA/QC Samples: duplicate samples should be analyzed every 20 samples.

11.3 Acceptance Criteria (Precision and Accuracy): Refer to Section 11.2 above and to the Quality Assurance Manual (LAB-PR-001-ALL) for QC acceptance criteria.

11.4 Corrective Action Procedures: none

11.4.1 For further guidance, refer to the Quality Assurance Manual (LAB-PR-001-ALL) for corrective action procedures.

12.0 Definitions

12.1 Method specific: none

12.2 For more definitions, refer to the glossary section of Quality Assurance Manual (LAB-PR-001-ALL).

13.0 REFERENCES

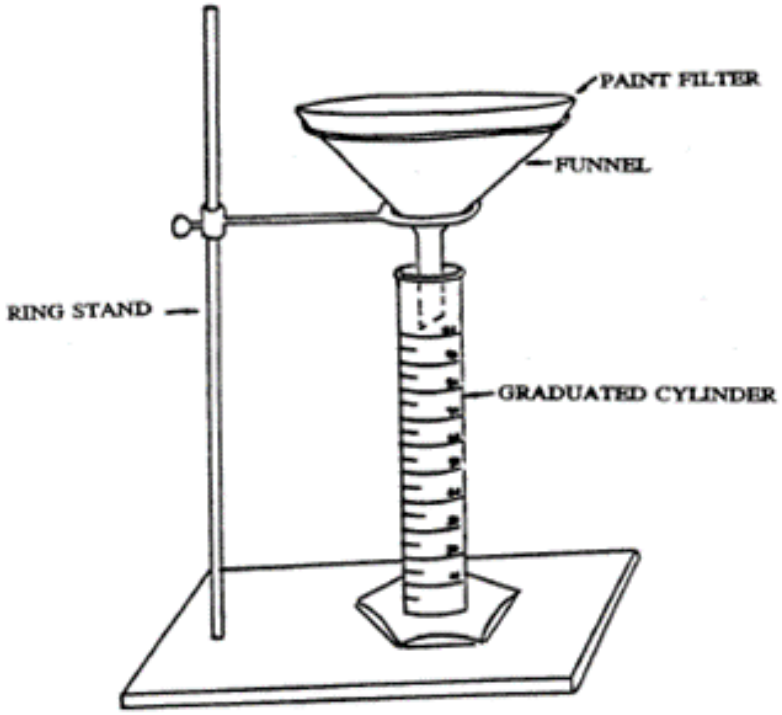
13.1 "Paint Filter Liquids Test", Method 9095B, Test Methods for Evaluating Solid Waste, SW-846, 3rd edition, Revision 2, November 2004.

14.0 Internal Method Review

Record of Revision		
Revision No.	**Purpose of revision**	**Effective date**
-	ORIGINAL – US Ecology, Inc. Grand View, Rev. 0.0	NA
1.0	COMPARED to SW-846 Method 9095B ADDED NELAC requirements	10/1/17
1.1	IMPLEMENTED as Lab MS Standard	10/17/17
1.2	Open Comment Period: • Section 11 – clarified the requirement for DOC applies to analyst performing regulatory work. • Section 11 – Removed reference to obsolete document LAB-PR-003-ALL Demonstration of Capability. This is now found in the QAM.	11/15/18

15.0 Tables, Diagrams, Flowcharts, and Validation Data

15.1 EPA Method 9095B Figure 1 Paint Filter Test Apparatus



Section 6

DOCUMENT CONTROL
(TNI V1:M2 – Section 4.3)

This Section describes how the laboratory establishes and maintains a process for document management. Procedures for document management include controlling, distributing, reviewing, and accepting modifications. The purpose of document management is to preclude the use of invalid and/or obsolete documents.

Documents can be SOPs, policy statements, specifications, calibration tables, charts, textbooks, posters, notices, memoranda, software, drawings, plans, etc. These may be on various media, whether hard copy or electronic, and they may be digital, analog, photographic or written.

The laboratory manages three types of documents: 1) controlled, 2) approved, and 3) obsolete. Uncontrolled copies may be printed through the OnBase – Policy and Procedures Library or requested by contacting the Quality Manager or Technical Manager. Uncontrolled copies are not managed by the laboratory and are for reference only.

A controlled document is one that is uniquely identified, issued, tracked, and kept current as part of the management system. Controlled documents may be internal documents or external documents.

An approved document means it has been reviewed, and either signed and dated, or acknowledged in writing or by secure electronic means by the issuing authority (ies).The approved document will be maintained electronically in the OnBase – Policy and Procedures Library. Approved copies may be requested by contacting the Quality Manager (for QAM related documents) or the Technical Manager (for site-specific documents).

Obsolete documents are documents that have been superseded by more recent versions or are no longer needed. Obsolete documents will be maintained electronically in the OnBase – Policy and Procedures Library.

As a member of a larger organization, each laboratory is subject to the Corporate Document Control System. For further information reference MSP-MP-009-ALL Document Control Program.

6.1 Controlled Documents

Documents will be reviewed, revised (as appropriate) and approved for use prior to issue by the following personnel:

i. Quality Assurance Manual: Director of Laboratory Services, Quality Manager, Facility Laboratory Directors
ii. Policies: EVP of Regulatory Compliance and Safety, Director of Laboratory Services

iii. Programs: Director of Laboratory Services, Quality Manager
iv. Corporate SOPs: Director of Laboratory Services, Technical Manager
v. Site-specific SOPs: General Manager, Technical Manager
vi. Other: Technical Manager, site personnel

Documents are reviewed annually to ensure their contents are suitable and in compliance with the current management systems requirements, and accurately describe current operations.

Approved copies of documents are available to staff at all locations where operations are essential to the effective functions of the laboratory. Approved copies may be requested by contacting the Quality Manager (for QAM related documents) or the Technical Manager (for site-specific documents).

Controlled internal documents are distributed onsite by the Technical Manager. Corporate documents, including this QAM, are distributed by the Quality Manager electronically or through the mail service.

Controlled internal documents are uniquely identified with 1) a unique name or number identification 2) date of issue, 3) revision identification, 4) page number, 5) the total number of pages (or a mark to indicate the end of the document), and 6) the signatures of the issuing authority (i.e. management). Document approval is received in person or through DocuSign and must include the signature and date.

A master list of controlled internal documents maintained that includes distribution, location, and revision dates. A master list of controlled external documents is also maintained that includes title, author, copyright date, and date of publication, and location. For Quality Assurance documents and method-defined parameters, the controlled document list is maintained by OnBase – Policy & Procedures Library and updated automatically when a document is revised. For site-specific documents, the controlled document list is updated monthly in a database[1] and is maintained by the Technical Manager or Facility Advisor. MSP documents are maintained by the Integrated Management Team (IMS) and their policy is referenced in MSP-MP-009-ALL Document Control Policy.

6.1.1 Document Changes to Controlled Documents

6.1.1.1 Paper Document Changes

Document changes are approved by the original approving authority.

The document management process allows for handwritten modifications to documents. The date and approval is documented with the modifications and these changes are tracked by a table at the end of each document.

All document modifications are approved. Changes that are not process modifications but clarifications may be performed without revision. Approval is required. The modified document is then copied and distributed, and

[1] Moving towards Onbase – PPL in 2019

obsolete documents are removed according to the master list of controlled documents.

Amendments/modifications to documents are incorporated into a new revision and reissued when the document is reviewed and updated on or before its scheduled review cycle.

A reason for the modification or change is provided as historical information in the revised document.

6.1.1.2 Electronic Document Changes

Suggested revisions to electronic documents are presented to the Quality Manager and/or Technical Manager for review and approval. To determine who is appropriate for each document, see section 6.1 above. Changes to electronic documents are approved through the OnBase – Policy and Procedures Library.

Where practical, the altered text or new text in the draft is identified during the revision or review process to provide for easy identification of the modifications.

6.2 Obsolete Documents

All invalid or obsolete documents are removed from general distribution, or otherwise prevented from unintended use.

Obsolete documents retained for legal use or historical knowledge preservation are appropriately marked and retained. For further information reference MSP-MP-009-ALL Document Control Program.

Appendix C11-AA

FORM EQP 5111 ATTACHMENT TEMPLATE C11 - SUBPART AA AIR EMISSIONS FROM PROCESS VENTS

This document is an attachment to the Michigan Department of Environmental Quality's (DEQ) *Instructions for Completing Form EQP 5111, Operating License Application Form for Hazardous Waste Treatment, Storage, and Disposal Facilities*. See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), R 299.9504, R 299.9508, R 299.9605, and R 299.9630; and Title 40 of the Code of Federal Regulations (CFR), Part 264, Subpart AA, and 40 CFR §270.24 establish requirements for controlling organic air emissions from process vents. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This license application template includes the information required by 40 CFR §270.24 to address air emission control requirements for process vents at hazardous waste management facilities for the USEM facility in Detroit, Michigan.

(Check as Appropriate)

☒ Applicant for Operating License for Existing Facility

☒ Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility

☐ Process Vents Subject to 40 CFR Part 264, Subpart AA (R 299.9630)

☒ No Process Vents Exist That Are Subject to 40 CFR Part 264, Subpart AA (R 299.9630)

The operations at USEM do not include distillation, fractionation, thin-film evaporation, solvent extraction, or air or steam stripping. Therefore 40 CFR 264 Subpart AA does not apply.

Appendix C11-BB

FORM EQP 5111 ATTACHMENT TEMPLATE C11 - SUBPART BB AIR EMISSIONS FROM EQUIPMENT LEAKS

This document is an attachment to the Michigan Department of Environmental Quality's (DEQ) *Instructions for Completing Form EQP 5111, Operating License Application Form for Hazardous Waste Treatment, Storage, and Disposal Facilities*. See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), R 299.9504, R 299.9508, R 299.9605, and R 299.9631; and Title 40 of the Code of Federal Regulations (CFR), Part 264, Subpart BB, and 40 CFR §270.25 establish requirements for controlling organic air emissions from equipment leaks. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This license application template addresses air emission control requirements for equipment leaks at the hazardous waste management facility for the USE-DN facility in Detroit, Michigan.

(Check as Appropriate)

☒ Applicant for Operating License for Existing Facility

☒ Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility

☐ Equipment Subject 40 CFR Part 264, Subpart BB (R 299.9631)

☒ No Equipment Exists That Is Subject to 40 CFR Part 264, Subpart BB (R 299.9631)

USE-DN does not accept hazardous waste for treatment with an organics concentration of 10% or greater by weight or with a VOC concentration ≥ 500ppm. USE-DN requires generators to complete the Waste Approval Form (see Appendix A2-1) to disclose information regarding waste characteristics, including organics content. This form requires that generator knowledge and/or the methods of SW 846 be used to analyze the waste. This Waste Approval Form (WAF) requires a detailed composition and generating process of the waste stream that is being described in the Waste Approval Form. This information is evaluated to establish the organic concentration of the waste stream. Additionally, an addendum to the WAF specifically addresses organic content of the wastestream. It is anticipated this information may be included in the body of the WAF to eliminate the addendum in future revision of the WAF. If the generator cannot provide sufficient information to document the organic concentration of the waste, analytical confirmation will be required. This determination is confirmed annually or when a waste stream undergoes a process change or change in raw materials. USE-DN also fingerprints each incoming waste stream to confirm conformity with the waste profile and the fingerprint parameters established in the approval pre-screening process. These procedures are detailed in the USE-DN Waste Analysis Plan (see Module A3).

Finally, as noted in Subpart AA, the operations at USE-DN do not include distillation, fractionation, thin-film evaporation, solvent extraction, air or steam stripping. Accordingly, the processing of waste at USE-DN is not expected to increase the organics concentration of the waste. There are no pumps, compressors, valves, etc. that contain or contact hazardous waste with organics concentration of 10 percent by weight. Additionally, as noted in Module C11-Subpart CC, operation of the bulking station and related equipment include only capture of vapors without recovery of these vapors, therefore Subpart BB does not apply.

As required by 264.1064 (k)(3), current generator signed Waste Approval Forms and any additional attachments, including any up to date analysis or other supporting information meeting the requirements of 264.1063 (d)(3), are maintained within the USE-DN record retention system and /or facility operating record. These documents are subject to review when the generator provides notification of a process change or otherwise at least annually during the facility re-certification process.

Appendix C11-CC

FORM EQP 5111 ATTACHMENT TEMPLATE C11 - SUBPART CC
AIR EMISSIONS FROM TANKS, CONTAINERS, AND SURFACE IMPOUNDMENTS

This document is an attachment to the Michigan Department of Environmental Quality's (DEQ) *Instructions for Completing Form EQP 5111, Operating License Application Form for Hazardous Waste Treatment, Storage, and Disposal Facilities*. See Form EQP 5111 for details on how to use this attachment.

The administrative rules promulgated pursuant to Part 111, Hazardous Waste Management, of Michigan's Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), R 299.9504, R 299.9508, R 299.9605, and R 299.9634; and Title 40 of the Code of Federal Regulations (CFR), Part 264, Subpart CC, and 40 CFR §270.27, establish requirements for controlling organic air emissions from tanks, containers, and surface impoundments. All references to 40 CFR citations specified herein are adopted by reference in R 299.11003.

This license application template addresses air emission control requirements for tanks, containers, and surface impoundments at the hazardous waste management facility for the US Ecology Detroit North (USE-DN) facility in Detroit, Michigan.

(Check as Appropriate)

☒ Applicant for Operating License for Existing Facility

☒ Applicant for Operating License for New, Altered, Enlarged, or Expanded Facility

☒ Tanks, Containers, or Surface Impoundments Subject to 40 CFR Part 264, Subpart CC (R 299.9634)

☐ No Tanks, Containers, or Surface Impoundments Subject to 40 CFR Part 264, Subpart CC, Exist at the Facility (R 299.9634)

USE-DN does not accept hazardous waste for treatment or storage in tanks with a volatile organic compound (VOC) concentration of greater than 500 ppm. USE-DN requires generators to provide fully completed Waste Approval and Certification Forms (see Appendix A2-1) to disclose information regarding waste characteristics, including if the waste contains greater or less than 500 ppm VOC concentration. The forms are current and contain the information as required to comply with the requirements of 40 CFR Parts 264 and 268 and are reviewed by USE-DN approvals coordinators for completeness. These forms require that generator knowledge and/or the methods of SW 846 be used to analyze the waste. Waste with greater than 500 ppm VOC is not suitable for treatment but can be stored in the container storage area. USE-DN also fingerprints each incoming waste stream to confirm conformity with the waste profile. These procedures are detailed in the USE-DN Waste Analysis Plan (see Section 3.A(2)(c) of Module A3, including a portable ionization detector). Finally, as noted in Subpart AA, the operations at USE-DN do not include distillation, fractionation, thin-film evaporation, solvent extraction, air or steam stripping. Accordingly, the processing of waste at USE-DN is not expected to increase the organics concentration of the waste. Therefore 40 CFR 264 Subpart CC does not apply for treatment purposes.

USE-DN does store waste at the facility that are subject to R 299.9634. These materials are handled as prescribed in CFR 264.1086 and described further in this document.

C11.C AIR EMISSIONS FROM TANKS, CONTAINERS, AND SURFACE IMPOUNDMENTS
[R 299.9634 and 40 CFR Part 264, Subpart CC]

☒ Tanks

☒ Containers

☐ Surface Impoundments

C11.C.1 Waste Streams
[R 299.9634 and 40 CFR §264.1082(c)]

No waste streams subject to Subpart CC controls are accepted for treatment or storage in tanks at the USE-DN facility. Waste subject to Subpart CC controls are only accepted for storage in containers at the facility in the Container Management Facility. These wastes have been evaluated according to the USE-DN Waste Analysis Plan described in Module A.3.

C11.C.1(a) Average VO Concentration Determination Via Direct Measurement at the Point of Waste Origination
[R 299.9634 and 40 CFR §264.1083]

VOC concentrations, greater than or less than 500 ppm, are obtained from the waste generator through analytical data or process knowledge and are documented within the Waste Approval and Certification forms according to the USE-DN Waste Analysis Plan described in Module A.3. USE-DN requires generators to review and re-certify each approved waste at least annually and to revise their waste approval documents anytime changes occur to the generating process that could impact the characteristics of the waste. Wastes containing volatile organic compound (VOC) concentrations greater than 500 ppm are not treated or stored in tanks. However, wastes containing greater than 500 ppm VOC will be received in containers for storage within the Container Management Building.

C11.C.1(b) Average VO Concentration Determination Via Process Knowledge at the Point of Waste Origination
[R 299.9634 and 40 CFR §264.1083(a)(2)]

VOC concentrations, greater than or less than 500 ppm, are obtained from the waste generator through analytical data or process knowledge and are documented within the Waste Approval and Certification forms according to the USE-DN Waste Analysis Plan described in Module A.3. USE-DN requires generators to review and re-certify each approved waste at least annually and to revise their waste approval documents anytime changes occur to the generating process that could impact the characteristics of the waste. Wastes containing volatile organic compound (VOC) concentrations greater than 500 ppm are not treated or stored in tanks. However, wastes containing greater than 500 ppm VOC will be received in containers for storage within the Container Management Building.

C11.C.1(c) Average VO Concentration Determination Via Direct Measurement at the Point of Waste Treatment
[R 299.9634 and 40 CFR §264.1083(b)]

USE-DN does not treat wastes containing volatile organic compound (VOC) concentration greater than 500 ppm. Therefore, this section does not apply.

The document "Description of Wastewater Treatment Processes at USE-DN" describes the process that will be used to provide sufficient analytical data on the average VO content to demonstrate the filter cake generated from the treatment process does not have an average VO concentration above 500 ppm.

C11.C.1(d) Maximum Organic Vapor Pressure Determination of Hazardous Waste in a Tank Using Level 1 Controls Via Direct Measurement
[R 299.9634 and 40 CFR §264.1083(c)]

No tanks are used to manage waste Subject to Subpart CC controls therefore this section does not apply to the USE-DN facility.

C11.C.1(e) Maximum Organic Vapor Pressure Determination of Hazardous Waste in a Tank Using Level 1 Controls Via Process Knowledge
[R 299.9634 and 40 CFR §264.1083(c)]

No tanks are used to manage waste Subject to Subpart CC controls therefore this section does not apply to the USE-DN facility.

C11.C.1(f) Description of Procedures for Determining No Detectable Organic Compound Emissions
[R 299.9634 and 40 CFR §§264.1083(d) and 270.27(a)(6)]

No tanks are used to manage waste Subject to Subpart CC controls therefore this section does not apply to the USE-DN facility.

C11.C.2 Tanks Description
[R 299.9634 and 40 CFR §270.27(a)(1) and (3)]

No tanks are used to manage waste Subject to Subpart CC controls therefore this section does not apply to the USE-DN facility.

C11.C.3 Surface Impoundment Description
[R 299.9634 and 40 CFR §264.1085]

There are no surface impoundments at the USE-DN facility.

C11.C.4 Container Descriptions
[R 299.9634 and 40 CFR §§264.1086, and 270.27(a)(2)]

Container use and management at the facility is described in Module C1 of this application.

C11.C.4(a) Description of Container Level 1 Controls
[R 299.9634 and 40 CFR §264.1086(b) and (c)]

USE-DN accepts for storage containers having a storage capacity between 26.5 and 121 gallons. The facility does not perform stabilization within these containers.

C11.C.4(a)(1) Michigan Department of Transportation Specifications
[R 299.9634 and 40 CFR §264.1086(c)(1)]

USE-DN accepts for storage waste contained in containers that meet US Department of Transportation regulations for the transport of hazardous materials in conformance of 40 CFR § 264.1086(c)(i).

C11.C.4(a)(2) Cover and Closure Devices
[R 299.9634 and 40 CFR §264.1086(c)]

Hazardous materials arrive at the facility with all covers and closure devices installed and secured. Containers remain closed while in storage except as necessary to perform routine activities associated in waste management such as fingerprinting, sampling, adding or removing waste, measuring waste levels, or assessing interior container equipment. Containers are immediately closed upon completion of the waste management activity.

C11.C.4(a)(3) Open-Top Containers with Organic Vapor-Suppressing Barrier
[R 299.9634 and 40 CFR §264.1086(c)]

Not Applicable, this type of container is not used in USE-DN.

C11.C.4(a)(4) Inspection Procedures
[R 299.9634 and 40 CFR §264.1086(c)(4)]

As described in modules A5 and C1 of this application all waste containers are inspected, including its cover and closure device, upon receipt to the facility. This is documented on the fingerprint sheet associated with each waste stream. All hazardous waste received by the facility is either treated or shipped offsite for disposal within 12 months of receipt.

C11.C.4(b) Description of Container Level 2 Controls
[R 299.9634 and 40 CFR §264.1086(d)]

USE-DN accepts for storage containers having a storage capacity greater than 121 gallons. The facility does not perform stabilization within these containers. Level 2 controls will apply to the storage of waste containers having a storage capacity greater than 121 gallons.

C11.C.4(b)(1) Michigan Department of Transportation Specifications
[R 299.9634 and 40 CFR §264.1086(d)(1)]

USE-DN accepts for storage waste in containers that meet US Department of Transportation regulations for the transport of hazardous materials in conformance of 40 CFR § 264.1086(d)(1)(i) and as specified in 40 CFR § 264.1086(f).

C11.C.4(b)(2) Container Operating with No Detectable Emissions
[R 299.9634 and 40 CFR §264.1086(d)(1)]

Not using this option, this type of container is not used in USE-DN.

C11.C.4(b)(3) Containers Demonstrated to be Vapor-Tight
[R 299.9634 and 40 CFR §264.1086(d)(1)]

Not using this option, this type of container is not used in USE-DN.

C11.C.4(b)(4) Container Waste Transfer Procedures
[R 299.9634 and 40 CFR §264.1086(d)(2)]

The Container Management Facility (CMF) waste bulking and transfer area is used to consolidate small quantities of certain compatible wastes into containers and to bulk any containerized wastes into bulk tankers for transport off-site or treatment on site. The bulking/transfer area and the drum washing bay are equipped with fume hoods which are connected to an air emission control system consisting of a blower (a minimum of 1,000 cfm), two activated carbon vessels (a minimum of 1,800 pounds of carbon each), and a 5,000-cfm caustic scrubber. The carbon absorption system is equipped with a Flame Ionization Detector to indicate when the carbon is approaching saturation. At this near saturation point the spent carbon will be removed, properly disposed of, and replaced with fresh carbon. Operation of the system results in the capture of organic vapors without the recovery of these vapors. Transfer of materials from the bulking/transfer area to the tanker truck is achieved by truck supplied vacuum. The waste is transferred through one of three separate hoses with appropriate couplings for acid, alkaline, and organic. During bulking/transfer the area has additional ventilation air supplied at a rate of a minimum of 1,000-cfm whenever bulking is performed.

During the bulking process each Level 1 or Level 2 control container will only be opened while in the Waste Bulking and Transfer Area in the CMF under the open vent system and that removal of the waste will take place within 15 minutes. Waste transfers to or from a Level 2 container will occur using a submerged-fill or drain pipe to minimize exposure of the waste to the atmosphere. The container will be closed within 15 minutes after the waste has been removed from the container. Each container will be closed if the person unloading the container is required to leave the immediate vicinity.

C11.C.4(b)(5) Cover and Closure Management Procedures
[R 299.9634 and 40 CFR §264.1086(d)(3)]

Hazardous materials arrive at the facility with all covers and closure devices installed and secured. Containers remain closed while in storage except as necessary to perform routine activities associated in waste management such as fingerprinting, sampling, adding or removing waste, measuring waste levels, or assessing interior container equipment in accordance with the Waste Analysis Plan in Module A.3. Containers are immediately closed upon completion of the waste management activity.

C11.C.4(b)(6) Inspection Procedures
[R 299.9634 and 40 CFR §264.1086(d)(4)]

As described in modules A5 and C1 of this application all waste containers are visually inspected upon receipt to the facility. This is documented on the fingerprint sheet associated with each waste stream. Additionally, containers and secondary containment areas are inspected daily. Corrective action will be initiated immediately upon the discovery of a defect to a container, cover or closure device.

C11.C.4(c) Description of Container Level 3 Controls
[R 299.9634 and 40 CFR §264.1086(e)]

Waste stabilization does not occur within containers at the USE-DN facility, therefore Level 3 Controls are not required, and this section is not applicable.

C11.C.5 Description of Closed-Vent Systems and Control Devices
[R 299.9634 and 40 CFR §§264.1087 and 270.27(a)(5)]

There are no tanks that are used for the treatment or storage of wastes subject to Subpart CC. There are no containers used for the treatment of wastes subject to Subpart CC. Containers used for the storage or transfer of Subpart CC wastes will use Level 1 or Level 2 controls as described above. Therefore, there is no requirement for the use of a Closed-Vent System and Control Device.

However, as a Best Management Practice to reduce worker exposure and to reduce potential flammable vapor buildup, USE-DN has installed an open hood system over its Waste Bulking and Transfer Area. A fan draws air and vapor from the open hood system through a header vent and through a carbon containing vessel and a wet scrubber before eventually discharging outside the building to atmosphere. A Permit-to-Install (PTI) was provided by DEQ Air Quality Division for the general operation and control of this equipment.

A detailed description of the Carbon System can be found in Appendix C1-7.

C11.C.6 Description of Record Keeping Procedures
[R 299.9634 and 40 CFR §264.1089(a)]

Records to include Waste Approval and Certification forms and any waste analysis supporting determination of VO concentrations will be maintained in the facility database to document compliance with 40 CFR Part 264 Subpart CC. Records for the disposal of carbon saturated with volatile organics from the waste bulking and transfer area will be maintained in the USE-DN operating record for a minimum of three years.

C11.C.6(a) Description of Tank Record Keeping Procedures
[R 299.9634 and 40 CFR §264.1089(b)]

There are no Subpart CC regulated tanks in use at the USE-DN facility, therefore this section does not apply to this application.

C11.C.6(b) Description of Surface Impoundment Record Keeping Procedures
[R 299.9634 and 40 CFR §264.1089(c)]

There are no surface impoundments present at the USE-DN facility therefore this section does not apply to this application.

C11.C.6(c) Description of Container Level 3 Control Record Keeping Procedures
[R 299.9634 and 40 CFR §264.1089(d)]

There are no containers used for the treatment of wastes subject to Subpart CC. Containers used for the storage or transfer of Subpart CC wastes will use Level 1 or Level 2 controls as described above. This section in not applicable.

C11.C.6(d) Closed-Vent System and Control Device Records
[R 299.9634 and 40 CFR §264.1089(e)]

There are no containers used for the treatment of wastes subject to Subpart CC. Containers used for the storage or transfer of Subpart CC wastes will use Level 1 or Level 2 controls as described above. Therefore, there is no requirement for the use of a Closed-Vent System and Control Device. This section is not applicable.

C11.C.6(d)(1) Performance Certification
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)]

Not Applicable

C11.C.6(d)(2) Design Analysis Documentation
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(ii)]
Not Applicable

C11.C.6(d)(3) Performance Test Plan and Results
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(iii)]

Not Applicable

C11.C.6(d)(4) Descriptions of Sensors, Modifications, and Locations
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(iv)]

Not Applicable

C11.C.6(d)(5) Planned Routine Maintenance Schedules
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(v)]

Not Applicable

C11.C.6(d)(6) Descriptions of Unplanned Malfunctions
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(vi)]

Not Applicable

C11.C.6(d)(7) Management of Carbon Removed from a Carbon Absorption System
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(vii)]

There are no containers used for the treatment of wastes subject to Subpart CC. Containers used for the storage or transfer of Subpart CC wastes will use Level 1 or Level 2 controls as described above. Therefore, there is no requirement for the use of a Closed-Vent System and Control Device.

However, as a Best Management Practice to reduce worker exposure and to reduce potential

flammable vapor buildup, USE-DN has installed an open hood system over its Waste Bulking and Transfer Area in the Container Management Facility (CMF). A fan (1,000 cfm) draws air and vapor from the open hood system through a header vent and through a carbon containing vessel (1,800 lbs.) and a caustic scrubber (5,000 cfm) before eventually discharging outside the building to atmosphere. A Permit-to-Install (PTI) was provided by DEQ Air Quality Division for the general operation and control of this equipment.

The carbon adsorption system is equipped with a Flame Ionization Detector (FID) to indicate when the carbon is approaching saturation. At this near saturation point the spent carbon will be removed and replaced with fresh carbon. Operation of the system results in the capture of organic vapors without the recovery of these vapors. Saturated carbon removed from the system will be shipped offsite for incineration or other treatment/disposal in accordance with current regulations.

A detailed description of the Carbon System can be found in Appendix C1-7.

C11.C.6(e) Records Required for Exempt Units
[R 299.9634 and 40 CFR §264.1089(f)]

No waste streams subject to Subpart CC controls are accepted for treatment or storage in tanks at the USE-DN facility. Therefore, hazardous waste treatment and storage tanks are exempt from Subpart CC controls. Records including Waste Approval and Annual Re-Certification forms, any waste analysis supporting determination of VO concentrations, and other relevant documentation used to establish waste VO concentration will be maintained in the facility database to document compliance with 40 CFR Part 264 Subpart CC.

C11.C.6(f) Description of Covers Designated as Unsafe to Inspect and Monitor
[R 299.9634 and 40 CFR §264.1089(g)]

None present.

C11.C.6(g) Documentation of Alternative Compliance with 40 CFR Part 60, Subpart VV, or 40 CFR Part 61, Subpart V
[R 299.9634 and 40 CFR §264.1089(h)]

Not Applicable

C11.C.6(h) Documentation Required for Tanks and Containers Not Using Air Emission Controls
[R 299.9634 and 40 CFR §264.1089(i)]

All containers with waste subject to Subpart CC use emission controls as described at C11.C.4 (a) and C11.C.4 (b), therefore this section does not apply. No tanks are used to manage waste Subject to Subpart CC.

C11.C.6(h)(1) List of Organic Peroxide Compounds
[R 299.9634 and 40 CFR §264.1089(i)(1)]

There are no organic peroxides processed at the USE-DN facility therefore this section does not apply.

C11.C.6(h)(2) Management of Organic Peroxide Compounds
[R 299.9634 and 40 CFR §264.1089(i)(2)]

Not Applicable

C11.C.6(h)(3) Justification for Claiming that Air Emission Controls Would Create an Undue Safety Hazard
[R 299.9634 and 40 CFR §264.1089(i)(3)]

Not Applicable

C11.C.6(i) Certifications and Identification of Federal Clean Air Act of 1990 Requirements
[R 299.9634 and 40 CFR §264.1089(j)(1) and (2)]

USE-DN has demonstrated compliance with Subpart CC as described above therefore this section is not applicable.