

Part 115, Solid Waste Management, of the Natural Resources and Environmental  
Protection Act, 1994 PA 451, as amended (NREPA)  
Solid Waste Statute and Rules Interpretation Document

QUESTIONS, ANSWERS, AND CORRECTIONS

**PART 1. GENERAL PROVISIONS**

**Rule 101(g)**

**What exactly is meant by the term “active work area?”**

The “active work area” is defined as “...the area which is or will be used for the storage, transport, or disposal of solid waste, methane gas, or leachate or in which heavy equipment is or will be used as part of the landfill operation.” This phrase was not meant to include areas where minor activities occur not involving waste or waste constituents or heavy equipment for extended periods. Examples of allowable activities in the “buffer zone” called for by Rule 412 would include monitoring wells, emergency or occasional access roads (not including waste transport), berms, trees, etc., for screening, signs, and office buildings not designed for storage or equipment used in landfill construction/operation.

**Rule 104, 106(a) and 107**

09/01/00

**What procedures are necessary to review a change in landfill elevation?**

The procedures necessary depend on the type of change. The alternatives, and the requisite procedures, are as follows:

1. A change in elevation that results in an increase in design capacity. This is a vertical expansion and requires a new construction permit under R 299.4104(e)(ii). An application for a new permit must meet the requirements of R 299.4902 and is reviewed under the procedures specified in Sections 324.11510 and 324.11511 of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA).
2. An increase in the maximum elevation of the landfill that does not result in an increase in design capacity. This requires a permit modification unless the change is: (a) necessary to comply with changes to Part 115 or its implementing rules or (b) an upgrading as defined by R 299.4106a(l). See R 299.4106a(e). Applications for a permit modification must be made on a form provided by the Department and include both revised engineering plans and the requisite application fee. See R 299.4107(2). The application is reviewed under Sections 324.11510 and 324.11511 of NREPA.
3. A “significant change” in any landfill elevation that does not result in an increase in design capacity. This requires a permit modification under R 299.4106a(e).

Applications for a permit modification must be made on a form provided by the Department and include both revised engineering plans and the requisite application fee. See R 299.4107(2). The application is reviewed under Sections 324.11510 and 324.11511 of NREPA. A “significant change” is determined at the discretion of the Department as one that entails an issue properly the subject of public comment or that may interface with other Department or governmental regulations.

4. Any other change in landfill elevation that does not result in an increase in design capacity. This is a change to approved plans. A request for change to approved plans must include revised engineering plans. Such requests are reviewed internally and a decision made by district staff under the authority of R 299.4107(3).

**Rule 104(r)(iv)**

02/08/99

**What is the scope of “industrial operations” that are exempted by R299.4104(r)(iv) from obtaining a Part 115 processing plant permit and license?**

The term “processing” is defined in R 299.4104(r). That subrule also excludes certain activities from the definition of processing, thereby providing an exemption from the requirement to obtain a Part 115 construction permit and operating license.<sup>1</sup> Included among those exemptions is R 299.4104(r)(iv), which reads:

Industrial operations that use, reuse, or reclaim industrial waste, source-separated material, or site-separated material to make a raw material or new product.

To qualify as a product, the material must have, at a minimum, a legitimate use and economic value. Economic value requires that the facility receive bona fide payment for the product.

**Rule 104(r)(ix)**

12/05/94

**Can a person do a pilot composting project using less than 500 cubic yards of waste to seek approval under Rule 121 to declare the material compostable or does the pilot need to be done under Rule 117(5)?**

Rule 104(r)(ix) provides that composting of less than 500 cubic yards of material other than yard clippings is not “processing” if it is approved pursuant to Rule 121.

A pilot composting project cannot be done under Rule 104(r)(ix) unless there is approval under Rule 121.

Rule 117(4) does allow a pilot project to determine the suitability of using low-hazardous industrial waste for a specific reuse, which could include composting. If a solid waste is not a low hazard industrial waste, a person may petition the director under Rule 117(5) to

designate the waste inert for conducting a pilot project on the suitability of using the waste for a specific reuse (which could include composting).

**Rule 106(a)** 09/01/00

**What procedures are necessary to review a change in landfill elevation?**

See Rule 104.

**Rule 107** 09/01/00

**What procedures are necessary to review a change in landfill elevation?**

See Rule 104.

**Rule 110(j)** 05/05/95

**Is waste that is intended to be burned as fuel under the authority of a Part 55, Air Pollution Control, permit as provided in Rule 110(j), exempt from regulation as a solid waste during transportation (county plan restrictions) and storage prior to burning?**

First, one must determine if the fuel is a solid waste prior to burning. The fuel is NOT solid waste if it qualifies as a source separated material under the statutory definition as further defined by Rule 119. Clean, untreated wood burned as fuel qualifies as site-separated material provided the wood is not accumulated speculatively, or stored in a manner-constituting disposal. "Wood" is defined in Rule 106a(m) as: trees, branches, bark, wood pallets, lumber or other wood product which has not been treated, painted, mixed with glues and fillers, or otherwise contaminated during manufacture or use, and wood chips or sawdust from the materials listed above. The transportation and storage of source-separated material is exempt from regulation under Part 115. The definition of "processing" provides that a facility that removes small quantities of solid waste from source-separated material is exempt from regulation as a processing plant, provided the volume of waste removed is less than ten percent of the total volume.

Solid waste that does not qualify as source-separated material may be subject to regulation during transportation and storage prior to burning as fuel. Rule 110 only exempts material from being a solid waste to the extent the waste is regulated under the other statute. In this case, Part 55 only regulates the burning; it does not regulate transportation and storage. To determine the extent of regulation, one must determine if "disposal" is taking place during transportation and storage. "Disposal" as defined in Rule 102, includes processing, storage or handling at a transfer facility, and storage in a regulated pile. If "disposal" occurs prior to burning, that disposal activity is subject to regulation under Part 115, as is the transport of the waste to that disposal facility.

The definition of "processing" provides that industrial operations that reclaim solid waste to make a product (such as fuel) is not regulated provided the waste is not "household waste." Under this exclusion, a person may, for example, chip tires, railroad ties or

demolition material to produce a fuel, provided such an operation does not otherwise constitute “disposal.” Since any intermediate facility would be regulated as a transfer station, this exclusion is limited to the site of generation and the site of burning. In order to qualify for this exemption, the fuel must be “saleable” as a product, or the facility must be manufacturing some other saleable product as part of the industrial operation.

#### **Rule 110(j)(iv)**

**What is a “boiler, industrial furnace or power plant,” and how does it differ from a municipal solid waste incinerator burning waste and recovering energy (which is subject to county plan restrictions)?**

A unit that burns household waste is, by statutory definition, a municipal solid waste incinerator. A unit that burns industrial waste, commercial waste, or separated material may qualify as a “boiler, industrial furnace or power plant.” The term “industrial furnace” is defined in the NREPA. An appropriate definition of “boiler” is contained in 40 Code of Federal Regulations (CFR) 260.10. Since virtually all power plants have boilers, they must also meet this definition.

#### **Rule 114(2)(d)**

11/18/94

**Under this rule, “construction bricks” are listed as inert. What “construction bricks” are included as inert?**

The brick listed in Rule 114(2)(d) refers to uncontaminated brick. Based on knowledge of use, we would expect that painted construction bricks may potentially be contaminated. Therefore, painted construction bricks must be representatively sampled and tested by the generator to demonstrate compliance with the Type B criteria for soil.

#### **Rule 114(2)(h)**

11/18/94

**According to this rule, low-hazard industrial waste that is bonded by lime, asphalt, or cement is inert. Is the waste inert going into the process or after it is bonded? If the material is not inert going into the process, does a facility need a processing plant license and is the waste subject to regulation under Part 115 during transportation (county plan restrictions) and storage prior to such use?**

The material is not inert until after it has been bonded. However, the bonding process is exempt from the “processing” definition by virtue of the exemption for “industrial operations.” Since the waste is not inert until after it is bonded, the movement of the wastes must be in compliance with county solid waste plans, any stockpiling of wastes must comply with the waste pile regulations (Rules 129 and 130), and the waste may not be speculatively accumulated. To negate the need to comply with county solid waste management plans, the waste could be designated a site/source separated material under Rule 119 prior to being sent to the bonding facility.

**Rule 118(2)(d)**

**Do petitions to classify a waste as “low-hazard” need to contain the “total” concentration of all constituents listed in this rule?**

No. Petitions for low-hazard wastes must only contain leach analysis required by Rule 122. However, the petition should contain other information specified in the rule.

**Rule 118(2)(d)**

**May a petition to classify a waste use knowledge of the waste in lieu of analysis?**

Yes. The phrase “in light of the process used” was intended to allow a generator to use knowledge of the waste to determine that a constituent is not present or is at negligible concentrations.

**Rule 118(2)(d)**

12/09/94

**What parameters are included in this section? What is the intent of the wording “in light of the process used?”**

In order to properly characterize a material, ALL chemicals that were used in the process must be accounted for. If a generator can determine what went into the process by reviewing the Material Data Safety Sheets (MSDSs) or by using their knowledge of how the waste was produced (e.g., normally would not need to test for polynuclear aromatic hydrocarbon (PNAs) if the waste is not incinerated, may not need to test for pesticides if the material is not generated from plants, would not need to test for Polychlorinated Biphenyls (PCBs) if the waste is produced from currently generated compounds, etc.), those are the compounds that must be tested. (WARNING: It may not be possible to determine the exact chemicals that a product is made of by reviewing the MSDSs, therefore, the required parameters to analyze may be quite extensive.)

**Rule 118(2)(e)**

12/09/94

**What leaching methods are approvable and what is the procedure for getting a method approved? At what point is a leach test required?**

Allowable leaching procedures include the toxicity characteristic leaching procedure (EPA Method 1311), the synthetic precipitation leaching procedure (EPA Method 1312), or other procedures contained in Michigan Environmental Response Act (MERA) (now Part 201) Operational Memo #12, as approved on a case-by-case basis. Other proposed methods must be well documented and produce reproducible, quality data. Leaching tests are required anytime the total concentration of a contaminant is twenty times (or more) above the regulatory threshold or above background.

**Rule 119**

04/20/95

**If a material complies with Section 11506(6), “Source Separated material,” of Part 115, does it also have to comply with Rule 119 if it is land applied?**

No. Rule 119 is now intended to address materials not specified in the act as site or source separated, see instead, Rule 106a, as discussed below.

Section 11506(6) defines “Source separated material” as a number of specific materials that are separated at the source of generation for the purpose of conversion in to raw materials or new products including, but not limited to, compost. Rule 106a provides definitions of terms used in the act, including: “conversion,” “raw materials,” and “new products.” The definition of conversion prohibits speculative accumulation of materials, and the new products definition prohibits use-constituting disposal unless the new products are inert, compost from yard clippings, or materials applied to the land for agricultural or silvicultural uses consistent with the Part 115 rules.

**If sawdust from particle board and/or shredded particle board is sold or given to farmers as bedding and is subsequently applied to the land, does this need to comply with Rule 119?**

Even if the particle board is considered being used or reused as effective substitutes for commercial products, it must comply with Rule 119 (2)(d). This requires that the person seeking the exemption demonstrate that the storage and use of the material will not be injurious to human health and the environment. The exemption would be given for particle board used as animal bedding only if the person seeking the exemption agrees to provide the user of the material (farmers) information on the composition of the bedding.

**Rule 121**

**What criteria do we use to approve compost other than yard clippings? May a facility compost fish waste?**

In order to legally compost fish waste, or any waste other than yard clippings, a “petition for use of solid waste other than yard clippings as compost” must be approved. The requirements of this petition are spelled out in Rule 121.

**Rule 121(2)**

12/09/94

**Does compost need to be tested for maturity, foreign matter, and particle size if there are no criteria to meet?**

Yes, Rule 121(2) does not provide an option to testing for maturity, foreign matter, and particle size. One of the criteria for approval is that compost not create a nuisance. Compost maturity, foreign matter content, and particle size are tests appropriate to make this determination.

**Rule 121(3)(c)**

12/09/94

**How will the Department ensure that compost will be applied at agronomic rates, especially if it is bagged or sold in bulk?**

The director, as a condition of approval, will require that the compost be applied at an agronomic rate. If someone violates that condition, then they have not used a material approved as compost.

**Rule 128(4)**

**Is the disposal of demolition waste or structures by open burning or burial allowed as “household waste” if the disposal takes place on the individual’s own land?**

No. Rule 103(k) states “household waste means any solid waste that is derived from a single household, but does not include...construction and demolition waste.” Therefore, construction and demolition waste from the individual’s house or any structure on the individual’s property may not be burned or buried on the individual’s own land.

**Rule 129**

09/01/00

**How long can a waste remain in an uncontained waste pile?**

Waste cannot remain in an uncontained waste pile. Certain limited exceptions apply as follows:

- a. Low hazard industrial waste:
  - 1) Can remain in a waste pile in existence on October 8, 1993, unless the pile expands horizontally. If the pile expands horizontally, the exception no longer applies and the waste pile must be contained or meet another exception.
  - 2) If it is separated and stored before being returned to the original process from which the waste was generated or is being used or reused as an ingredient in an industrial process to make a product:
    - a) Can be stored for three years at the site of generation.
    - b) Can be stored for one year if other than at the site of generation.
    - c) Can be stored for an unlimited period provided the person who accumulated it can show that the material can be recycled into raw materials or new products and that, during the period, the amount of material that is recycled or that is transferred to a different site for recycling equals not less than 75 percent by weight or volume, of the amount of material that was accumulated at the beginning of the period.
  - 3) Can be stored for less than 60 days before being transported for disposal.
- b. Construction and demolition waste can be stored for less than one year at the site of generation before being transported for disposal.
- c. If the waste pile is permitted and licensed under Part 115, as long as the pile is licensed to operate.

- d. If the status of the waste changes, management of the waste is governed by the agency action changing the status of the waste. Status changes include:
- 1) Designation of the waste as inert for general reuse.
  - 2) Designation of the waste as inert for specific reuse.
  - 3) Controlled under a RAP as described in Rule 110(k) or Rule 110(l)(i).

**What are the requirements for closing an uncontained waste pile?**

By its reference to “storage,” Rule 129 envisions only temporary placement of limited types of wastes for limited periods in an uncontained waste pile. That temporary placement ends when one of the following conditions is met: (1) all solid waste is removed; (2) the waste pile is permitted and licensed; (3) the waste pile meets the containment requirements of Rule 130; or (4) the status of the waste changes. Status changes may occur through designating the waste as inert or through control via a RAP as described in Rule 110(k) and Rule 110(l)(i). Thus, short of permitting and licensure, containment per Rule 130, or a status change, an uncontained waste pile is “closed” when all solid waste is removed and all waste residues, subsoils, equipment, and structures are decontaminated or removed to ensure that the waste pile(s) will not cause environmental contamination.

**Who is responsible for and/or how is the determination of what footprint of the waste pile that was in existence on October 8, 1993?**

Because the existence of the waste pile usually results as a question from the Department, the Department is normally responsible for determining the existence of the waste pile on October 8, 1993. Survey information is the most sure and accurate determination but is frequently not available. Lacking such information, aerial photography near the October 8, 1993 date would be the next best information. Other photographs, maps, interviews and other forms of investigation would be the next level of determination. Lacking any specific historic documentation, we would rely on the applicant to define the boundary.

**Who/what determines whether a waste pile is not violating Part 31 or 55 or is causing a nuisance?**

The owner and operator of a waste pile described in Rule 129(2) may maintain that waste pile provided the waste pile is not in violation of Part 31, is not in violation of Part 55 and does not cause a nuisance. It is the responsibility of a party alleging that one or more of these conditions is not met to establish that fact. Thus, if the Department were to allege a violation of Rule 129(3), it would need to establish that the waste pile was causing a nuisance or violating Part 31 or Part 55.

**Rule 131**

**Can asbestos be disposed of at Type III landfills?**

A Type III construction and demolition site is prohibited from taking asbestos waste. “Asbestos waste” is waste/material regulated under National Emission Standards for



Hazardous Air Pollutants (NESHAPS). The materials regulated under the NESHAPS are friable asbestos and non-friable asbestos in poor condition. We should refer people to 40 CFR Part 61. Not everything that has asbestos in it will be an “asbestos waste.”

## **PART 2. CERTIFICATION OF LOCAL HEALTH DEPARTMENTS**

### **Rule 203(1)(a)**

**ERROR.** This references Rule 503. The correct reference should be Rule 901.

## **PART 3. TYPE III FACILITIES**

### **Rule 304**

11/18/94

**Do existing industrial waste landfills have to meet the cover requirements of Rule 304?**

No, existing industrial waste landfills do not have to meet the cover requirements of Rule 304 if they are in compliance with Rule 302(1)(a-e).

### **Rule 304(6)**

09/01/00

Rule 304(6)(a)(iii) allows the use of an alternate material for the infiltration layer of a landfill cap if the alternate material is shown to provide equivalent protection. May paper mill sludge, other industrial waste, or combinations of industrial waste be used as an alternate material in the infiltration layer?

Paper mill sludge or other industrial waste may be considered for use as an alternate material in the infiltration layer of a Type III landfill cap, however several conditions must be met prior to Department approval:

1. An Engineering Report that makes the following demonstrations must be provided:
  - (A) That the alternate material provides an equivalent reduction in infiltration to an FML or two feet of  $1 \times 10^{-7}$  clay.
  - (B) That the alternate material will be stable and will not degrade over the post-closure period.
  - (C) That the alternate material will not settle to a thickness less than the required minimum thickness for the landfill infiltration layer over the post-closure period.
2. An inertness designation must be obtained for the sludge. If an inertness designation for general re-use, reuse at a specific location, or specific reuse instead of virgin material is obtained, the sludge may be used if it meets the hydraulic conductivity and engineering criteria for a capping material.

If an inertness designation for site-specific re-use is obtained, the landfill operation would be required to obtain a permit for run-off from the cap, or the run-off would be required to be collected and treated.

Permit requirements would be dependent on the ultimate fate of the run-off. Examples of possible permits include – a NPDES discharge permit for a discharge to a surface water, a groundwater discharge permit, or an NPDES storm water permit with specific conditions.

3. A source material-specific cap design and construction quality assurance plan (CQA Plan) must be developed. The CQA Plan must be in compliance with the provisions of R 299.4916 and provide for analogous test methodologies and frequencies to those required for clay cap construction.
4. The placement of the cap must be completed within the timeframe specified in R 299.4317. That is, landfill cover materials must be placed over the entire surface of each portion of the final lift not more than six months after the placement of solid waste within that portion.

**Rule 304(6)(a)(iii)**

02/08/99

**Would a bentonite geocomposite alone (without a FML) be considered to provide equivalent protection to the 2 feet of compacted clay specified in 304(6)(a)(i)?**

Yes a bentonite geocomposite that is in compliance with the provisions of Rule 914 can be utilized as long as it is underlain by as least 18 inches of compacted earthen material that is demonstrated to be stable to protect the liner from waste and minimize the effects of settlement. The bentonite geocomposite would also need to be protected from the effects of erosion, root penetration and other deleterious effects. To accomplish this, an erosion layer in compliance with 425(2)(b) could be utilized over the bentonite geocomposite infiltration layer.

**Rule 311(1)**

**What is the purpose of the reference to “... any person who intended to place new waste in such a landfill ...?”**

The rule intended to require leach testing on any “new” waste (not previously approved) proposed for disposal at an existing industrial waste landfill.

**Rule 318**

08/29/95

**Rule 318(6) says, “The director shall delete any of the monitoring parameters specified in subrule (5) of this rule for a type III landfill unit if it can be shown that the removed constituents are not reasonably expected to be in or derived from the waste that is contained in the unit in significant concentrations.” In most cases, we rely on waste characterizations or leachate analysis to make this determination.**

However, for flyash, can it be shown that just the process alone would rule out the need to run the organics (both primary and secondary)?

Yes. We will **NOT** require a waste characterization or leachate analysis to eliminate the organics from the routine hydrogeological monitoring at flyash sites. However, we will require an annual waste characterization be submitted to determine which metals could be eliminated from the routine monitoring list.

#### **PART 4. MUNICIPAL SOLID WASTE LANDFILLS**

##### **Rule 410(2) and Rule 433**

05/05/95

**Do preexisting units need to implement explosive gas monitoring plans per Rule 433?**

Rule 410(2) states “the rules of this part apply to.... and preexisting type II landfill units, except as otherwise specifically provided in this part.” Rule 433 does not exclude preexisting units, so YES preexisting units need to complete explosive gas control and monitoring.

##### **Rule 410(3)**

**Does Part 4 apply to licensed landfill units that did not accept waste after October 9, 1991?**

Rule 410(3) exempts type II landfill units that have not been issued a construction permit or operating license and have not accepted waste after 1991. If the landfill unit was licensed or permitted, even if it did not accept waste after October 9, 1991, then it is subject to the applicable portions of the Part 4 rules of Part 115 [see Rule 410(4)]. The applicable portions of the type II landfill rules include explosive gas monitoring, as outlined in Rule 433, and the post-closure care requirements of Rule 449.

##### **Rule 416**

01/04/06

**If a facility is required to get a wetland permit per Rule 416, are they required to have that permit prior to the Department’s acceptance of a Part 115 construction permit application?**

Yes. The first part of Rule 416 states “A new type II landfill unit...shall not be located in wetlands, unless the owner and operator can demonstrate all of the following to the director...The owner or operator has obtained a permit under part 303 of the act...” The demonstration includes the requirement to have a wetland permit at the time of the consistency review of the application. Therefore, the intent of this rule was to require the wetland permit be approved in order to make the demonstration to the director at the time an application is submitted for a construction permit. Permit applications lacking a required wetlands permit shall be returned as administratively incomplete.

**Rule 421(1)**

**Must a composite liner be installed on top of old waste, if the plans approved before October 1993 required leachate to be routed to a “new unit” adjacent to the existing unit but did not require a composite?**

Rule 419 would require such a composite liner, if the “overflow” was proposed after October 1993. However, Rule 419 is not applicable because this case is NOT a “vertical expansion” - the expansion was already approved prior to October 8, 1993. Rule 419 only applies to permit decisions after October 9, 1993. Rule 421 requires new units and lateral extensions contain a composite liner (in this case, the adjacent area is a “new unit”). However, the rule does not mandate that new units or lateral extensions be separated from existing portions by a composite. The fact that the approved plans require waste/leachate separation between new and old portions makes the new area a “new unit” under our interpretation of this term (since waste is not contiguous, but separated by a physical barrier) but does not mean the pre-approved barrier must be a composite.

**Rule 421(2)**

**Can a new unit or lateral extension of an existing unit that is an “unmonitorable unit” utilize a tracer system in lieu of a leak detection system?**

No.

**Rule 423(5)**

08/23/96

**What criteria does the Department use to approve alternate leachate collection system designs?**

Rule 423(5) requires that an alternate leachate collection system be designed to limit head to the same extent as the design specified in Rule 423(3). A variety of equations are available to calculate leachate depth on a liner under given conditions. The Department believes a petition under this subrule must consider a factor of safety. Use of the methodology in SW-869 to calculate the head under the conditions specified in subrule (2) results in a maximum head of 4.3 inches, or a factor of safety of approximately 3. Similarly, the 1993 McEnroe method results in a factor of safety of approximately 2. These equations both assume that the pipe acts as an infinite sink and that the depth of leachate is not affected by uncollected leachate in the pipe bedding. This assumption is valid only when the pipe is placed in a modified trench or when other provisions to rapidly remove leachate to the sump are undertaken. If provisions for rapidly removing the leachate from the bottom of the cell are not made, the predicted leachate depth must be adjusted to account for mounding caused by the absence of an infinite sink.

In addition, there are practical limits to such parameters as pipe spacing and bottom slope. An insufficient spacing or number of leachate pipes will not allow clean-out of the system and, therefore, would violate subrule (1) (d). Similarly, an insufficient bottom

slope may prevent pipes from achieving a self-cleaning velocity, especially when allowable tolerances in bottom grade are considered [Rule 915(4)(b)].

**Rule 425(5)**

02/08/99

**Can a landfill use less than 18 inches of soil in a composite final cover, below a Flexible Membrane Liner (FML), if the soil has a lower permeability than  $1 \times 10^{-5}$  by demonstrating equivalency to 425(2)?**

No. A thinner layer of compacted clay would not be sufficient to be “equivalent” as thinner layers and/or fewer lifts increase the significance of cracks and anomalies in the clay.

**Rule 425(5)**

02/08/99

**As an alternative final cover design, can landfills use a bentonite geocomposite alone (without a FML) in lieu of 2 feet of compacted clay in a final cover by demonstrating equivalency to 425(3)?**

Yes a bentonite geocomposite that is in compliance with the provisions of Rule 914 can be utilized as long as it is underlain by at least 18 inches of compacted earthen material that is demonstrated to be stable to protect the liner from waste and minimize the effects of settlement. The bentonite geocomposite would also need to be protected from the effects of erosion, root penetration and other deleterious effects. To accomplish this, an erosion layer in compliance with 425(2)(b) could be utilized over the bentonite geocomposite infiltration layer.

**Rule 428(3)(b)(i) and (4)**

04/10/96

**Rule 428 deals with the handling of white goods and other recyclable metals at Type II landfills. Subparagraph “i” of Rule 428(3)(b) reads, “An area that is in compliance with the standards for waste piles specified in R 299.4122.” This rule citation is incorrect.**

**Subparagraph (4) of Rule 428 allows for the storage of lead acid batteries for recycling provided that such storage is conducted in, “...a vault or on a pad that is in compliance with the provisions of R 299.4124(6).” This rule citation does not exist and is, therefore, incorrect.**

It is recommended that Rule 428(3)(i) be corrected to include the proper rule citation that is R 299.4130 --- this citation provides the standards for waste piles.

It is recommended that Rule 428(4) be corrected to include the proper rule citation that is R 299.4130 --- this citation also provides for waste pile standards.

**Rule 430**

01/04/06

**May a landfill accept for disposal large quantities of small containers holding liquids from a single source?**

Proposed Answer: Rule 430(2)(c) is based on the liquid restrictions found at 40 CFR §258.28. The USEPA has provided guidance concerning the interpretation of the liquids restrictions found at 40 CFR §258.28. The USEPA Guidance Document "Municipal Solid Waste Disposal Facility Criteria Technical Manual" in Chapter 3/ Subpart C Operating Criteria provides the regulatory intent of the liquid waste prohibition found at 40 CFR §258.28. Section 3.10.3 - Technical Considerations states "The restriction of bulk or containerized liquids is intended to control a source of liquids that may become a source of leachate." The prohibition on landfilling of containers holding liquid waste does provide some allowance for small quantities of containers holding liquid waste to be accepted for disposal. If the container is household waste, or is in a small container similar in size to that normally found in household waste, the landfill may accept the waste for disposal.

Large quantities of small containers from one source cannot be accepted for disposal. An example of large quantities of small containers that hold liquid waste would include batches of outdated, damaged, or off-specification products that were packaged for household use. Outdated, damaged, or off-specification liquid products in small containers that need to be disposed of should be treated as liquid industrial waste pursuant to Part 121. After the liquid has been removed from the containers, the remaining residue may be disposed of in a landfill pursuant to Part 115.

**Rule 432(1)**

**Is a significant storm event a storm that generates 0.1 inches or more of rainfall in 24 hours correct?**

Yes, the 0.1 is in inches and not feet.

**Rule 432(6) and (7)**

**The need to dispose of leachate is specifically addressed in this rule. However, disposal of SCS water is not addressed. What is the proper procedure for disposal of SCS water?**

The rules do not mandate management of SCS water as leachate. However, if testing indicates that such water contains leachate [as defined in Rule 103(s)] it should be managed as such under Rule 432. Also, Rule 436 states that the operation of a type II landfill shall not do any of the following: cause a discharge of pollutants into waters of the United States, including wetlands, or cause a discharge in violation of Part 31 of Act 451.

**Rule 433**

04/21/95

**What Part 115 issues are appropriate to be included in the review of the gas management system?**

Rule 106a(l)(ii) defines “installation of gas recovery systems at a landfill” to be an upgrade to a **disposal area**. Section 11(2)(d) of Part 115 does not require that a new construction permit be obtained for an upgrading of a disposal area. However, this does not relieve the Department of the responsibility of plan review and approval for upgrades.

The Waste Management Division (WMD) previously determined that a gas-to-electrical plant is an upgrade of an existing methane control system and that the construction and operation of an electric plant is part of the normal development of a landfill. Therefore, a gas-to-electrical plant is part of the **disposal area** and, as such, is subject to regulatory control under Part 115 and its rules. This determination was upheld in Clinton County Circuit Court Case No. 91-6124-CZ, Granger Land Development Co., et al. v Watertown Charter Township. The court ruled in part that, “... the Township is precluded by Section 30(4) of Part 115 of regulating the location or the development of this electrical generation plant. That does not mean that they are precluded from regulating the construction of that electrical generation plant.”

Our regulatory control pertains to the siting of the gas management system and to those environmental aspects related to the siting (location), design, and operation of a **disposal area**. While classification of a gas management system as a disposal area puts the facility under Department review (as opposed to local planning review) relative to siting, this does not remove the responsibility of the applicant for obtaining all applicable permits from the appropriate unit of government. Included in this specifically is the need for a building permit. The building permit serves two primary functions; siting and compliance with building codes. While Part 115 supersedes the local zoning/siting criteria, it does not supersede or assume the responsibility for building code review.

Neither the Act nor the Rules provide authority to require that the applicant have a building permit prior to our approval of a gas management system. However, as part of the advisory analysis discussed in Rule 901, we are to inform the applicant of other permits that may be required for the disposal area. While an advisory analysis may or may not be associated with the review of the gas management system, we should advise the applicant of their need to obtain all necessary permits prior to beginning construction. The WMD Operational Memo #641-18 dated November 22, 1994, states that “Modifications which may meet the definition of an ‘upgrading’ ... but which are not specifically required by rule, are not subject to a new construction permit or permit amendment, but require pre-approval by the Department through the submission and approval of amended engineering plans.” Pre-approval applies to **construction certification** as well as the design.

Most of today's gas management systems have two major components: (1) the landfill gas collection piping system and (2) a system to process the landfill gas for a beneficial use or flaring. Because Part 115 rules define the installation of gas recovery systems at a landfill to be an improvement to a **disposal area**, the primary review items should be

taken directly from the municipal solid waste landfill section of the Part 115 rules. The following items taken from the Part 115 rules are appropriate to be included in the review of gas management systems:

1. Horizontal isolation distances, as set forth in Rule 412.
2. Noise issues are associated with gas-to-energy processing plants. Rule 431 sets the standard for noise at disposal areas that are municipal solid waste landfills. However, because the gas-to-energy processing plant will be operating on a 24-hour basis, the design must assure that there is a method for maintaining noise and vibration at levels that do not create a public nuisance or a health hazard. The following are appropriate noise attenuation features and have been used at existing facilities:
  - a. Sand filled 12-inch masonry block wall construction.
  - b. Roof design using concrete decking.
  - c. Hospital-grade silencers to muffle engine exhaust.
  - d. Limit the number of wall penetrations.
  - e. Use doors, windows, louvers, baffles, etc., that will reduce the transmission of vibration and noise.
  - f. Orientate the plant to direct the highest noise away from residential areas.
  - g. Increase set back distances to reduce sound transmission.
  - h. Use natural or artificial screening to baffle sound.
  - i. Select low revolutions per minute equipment preferentially.
  - j. Equip engine-generator sets with isolation pads to prevent transmission of vibration and noise.
3. The treatment, storage, and disposal of gas condensate as set forth in Rule 432.
4. Explosive gas control and monitoring as set forth in Rule 433.
5. Air criteria as required by Rule 434.
6. Surface and groundwater performance requirements as set forth in Rule 436.
7. Recordkeeping requirements as set forth in Rule 438.
8. Topographic maps as set forth in Rule 909 to the extent that they apply to the gas management system and/or modify those approved for the landfills construction permit.
9. Design plans and engineering reports as set forth in Rule 910 to the extent that they apply to the gas management system and/or modify those approved for the landfill's construction permit.
10. Operation plans and engineering reports as set forth in Rule 911 as they apply to the gas management system and/or modify the previously approved gas management system approved as part of the landfill's construction permit.



11. Construction quality assurance program and construction certifications as set forth in Rule 916 and Rule 921.
12. As part of the application, the applicant needs to specifically address the need for other permits that may be required under Parts 303, 301, 91, and 55, et al. If any of these permits are needed, they too shall be part of the application. Review of the gas management system for compliance with other state acts, local ordinances, national-state-local building codes, etc. will not be done by WMD staff as this falls outside of the scope of our authority. However, the applicant is responsible for obtaining all applicable local-state-national approvals. In particular, the applicant must obtain a building permit as staff do not have responsibility for review the application for things out of the scope of Part 115 such as the structural, mechanical, electrical, and sanitary systems of a gas-to-electrical plant.

Engineering certification shall accompany a request for license amendment by the applicant. The engineering certification is limited in scope to those applicable requirements of the act and the rules.

**Rule 433 and Rule 410(2)**

05/05/95

**Do preexisting units need to submit explosive gas monitoring plans per Rule 433?**  
See Rule 410(2) and Rule 433, above.

**Rule 438**

01/15/98

**How long is a facility required to retain the operating record?**

Rule 438 requires that the operating record contain information that is relevant through the post-closure period. Therefore, the operating record must be maintained through the end of that period. If operator responsibility is extended because of, for example, the need to take remedial measures for explosive gas control, the operating record must be maintained through the end of that period of responsibility. [See 438(1)(c).]

**Rule 441**

01/17/96

**Clarify the requirements of Rule 441 regarding Assessment Monitoring (specifically the need to analyze the Appendix II parameters referenced in this rule) with regard to landfills that currently have a remedial action in place.**

1. Preexisting units, defined as units that did not receive waste after October 1993, are not required to submit a new groundwater-monitoring plan complying with the requirements of Rule 905. Per Rule 439(6), preexisting units must comply with only their currently approved monitoring plans. If groundwater contamination has been previously discovered at a preexisting unit, a remedial action plan (RAP) and remedial monitoring plan may already be in place for this unit, and should be followed. The facility has the option of submitting a revised monitoring plan at any time, to more accurately monitor the contaminants at the site. Any revised monitoring plan would not be required to comply with the assessment or corrective

action monitoring requirements of Rules 441-445. However, any revised monitoring plan would need to be in compliance with any consent order or judgment at the facility.

If a preexisting unit has a future release in areas not being remediated in an approved RAP or in any area after the RAP is complete, then this contamination would be handled pursuant to the Part 201 rules.

- Existing units, defined as units that received waste after October 1993, are required by Rule 439(4) to submit a new groundwater-monitoring plan complying with the requirements of Rule 905. Existing units with groundwater contamination, which had a RAP approved and operational prior to October 1994, must implement a corrective action monitoring program, in accordance with Rule 445(1)(a). This rule requires compliance with Rule 441, which contains the provisions for analyzing for the Appendix II parameters. If a facility has an existing consent order, any proposed monitoring must be in compliance with Rule 441 and the consent order.

However, if the RAP is approved and in operation prior to October 1994, then the facility may use leachate data, analytical data from contaminated well(s), or other site specific information to request a reduced number of monitoring wells, a reduced parameter list, and/or a reduced sampling frequency from the Appendix II sampling requirements of Rule 441. This provision for reduced sampling requirements only applies to groundwater contamination that was addressed in the RAP approved and implemented prior to October 1994. Any groundwater contamination discovered after October 1994 must comply with all of the requirements of Rules 441-445.

- Existing facilities with groundwater contamination, which did not have a RAP approved and operational prior to October 1994, must comply with all of the requirements of Rules 441-445, including sampling select monitoring wells for all Appendix II parameters. If groundwater contamination has been documented prior to the required submittal of the new hydrogeological monitoring plan, then the provisions of Rules 441-445 must be included in that plan, in order for it to be approved.

If new or additional groundwater contamination is discovered after submittal of the monitoring plan, the plan must be revised in accordance with Rules 441-445.

## PART 5. SOLID WASTE TRANSFER FACILITIES AND PROCESSING PLANTS

**Rule 507(9)**

01/04/06

**Does a transfer station that removes recyclable materials from the waste for salvage require an operating license as a processing plant as well if they receive greater than 200 uncompacted yards per day? The recyclable materials could include corrugated cardboard, paper products, and/or metals.**

The transfer station does not need a processing plant approval provided the removal of recyclable materials occurs as “salvaging” pursuant to Rule 507(2).

“Salvaging” is defined by Section 11505(6) as “the lawful and controlled removal of reusable materials from solid waste.” Rule 507(9) authorizes salvaging at a transfer station “if salvaged material is removed from the site at the end of each business day or is confined to a storage area that is approved by the solid waste control agency.”

There is no specific volume limitation applicable to this provision, either for the amount of solid waste accepted by the transfer facility or the amount of recyclable materials removed from the waste stream. There is a practical limitation on how much material can be salvaged, however, it must be: (1) an amount capable of being removed at the end of each business day or (2) an amount approved by the department by approving the size of the storage area.

It is true that there is a slight inconsistency in the rules in that salvaging as described is arguably a type of “processing” as defined by Rule 104(r) (i.e., “separation...so as to make...a constituent of the waste...useable as a resource”) and there is no specific exemption from the processing definition for salvaging at transfer facilities. However, because the authorization in Rule 507(2) is more specific on the point, it would generally be considered to control rather than the more general definition of Rule 104(r).

## PART 9. LANDFILL CONSTRUCTION PERMITS AND OPERATING LICENSES

### Rule 901

#### **When are we required to do an advisory analysis at a facility?**

The rules and statute do not specify whether the analysis should be done before or after a consistency determination. Section 11510 of the Act does require a facility to request an advisory analysis and that NOT less than 15 days after the request, they may then file an application for a construction permit.

### Rule 901(a)

08/24/99

**If a facility is required to get a storm water permit per Rule 901(a), are they required to have that permit, prior to issuance of a Part 115 construction permit?**

No. However, the facility must have the storm water permit and all other clearances and permits as may be required by state law prior to beginning construction.

### Rule 906(4)

12/19/94

**Rule 906(4) states “the owner, operator shall notify the director that documentation of the design, installation, ... of any monitoring well ... has been placed in the**

**operating record.” Does this mean that any well installation at a facility should be reported?**

Rule 906(4) requires an owner/operator to notify the director that documentation of the design “... is placed in the operating record.”

Rule 906(9) clearly states “The owner operator shall not undertake well replacement, plugging, abandonment, or repair without the approval of the director...” but is silent on installations.

Section 11515(2) of Part 115 states that a facility must have an approved hydrogeological monitoring plan prior to licensure. Any change or deviation (i.e., installation of new wells) from the approved plan must be approved. Therefore, if a facility has an approved hydrogeological monitoring plan, then any well installation (including wells to investigate new areas and which have the potential to effect the existing hydrogeological monitoring plan) should have prior department approval, as any new well added to a facility would be viewed as a change to a monitoring plan.

**Rule 908(2)(c) and Rule 908(2)(d)**

02/27/98

**Both of these rules refer to the fact that the statistical limit (either tolerance limit, control chart approach, or prediction limit) must be protective of human health and the environment. Does this mean the actual limit must be below the Part 201 residential criteria?**

In general, yes. However, there are some circumstances where a calculated limit that is above the Part 201 residential criteria is acceptable. Several factors including actual upgradient analytical data that supports a value above the residential criteria must be evaluated. On the other hand, upgradient analytical data with just a large standard deviation may not justify a limit above the Part 201 residential criteria. Another factor may include the zoning of the site. This may allow justification of the industrial or commercial criteria as protective of the human health and environment, if the site clearly is industrial or commercial and would not have any residential recipients. Again, this limit would need to be justified with actual upgradient data that is above the residential criteria.

**RULE 921(1)**

02/08/99

**Rule 921(1) states in part: “The construction quality assurance officer shall certify that a landfill that was proposed for licensure was constructed in accordance with the CQA plan, these rules, and engineering plans approved by the department. All of the following construction records shall accompany the certification of a new unit . . .” What verbiage is to be included in the certification letter? Who is to sign the certification and to whom is the certification to be addressed?**

Rule 921(1) is clear that the construction quality assurance officer shall specifically certify, “that a landfill that was proposed for licensure was constructed in accordance with the CQA plan, these rules, and engineering plans approved by the department.” Anything short of this is not approvable. For example, if the construction quality assurance officer

certifies that, the landfill was constructed in 'general' accordance or 'substantial' accordance or any other modified accordance, this does not meet the above requirement. All three subcategories that are referenced in Rule 921(1) need to be listed to meet the requirement.

Equally clear is the documentation that shall accompany the certification; Refer to Rule 921(1), Rule 921(2), Rule 921(3), and Rule 921(4).

Not specifically stated in the rules is one additional requisite portion of the certification letter. The certification letter needs to identify what areas (if any) of the construction that may have proceeded whose construction may not have exactly been in accordance with the CQA plan, the rules, and engineering plans. We should not find these things buried in the certification.

Regarding the second part of the question, whom is to sign the certification and to whom is the certification to be addressed, we can be more flexible. Frequently, the landfill hires a third party as the construction quality assurance officer. It is reasonable to assume then that third party would then respond to the landfill as being in their direct chain of command with the landfill (an authorized representative) then submitting the certification to us. Because the landfill is ultimately responsible for their operation, they are responsible for the work done by the construction quality assurance officer and the contractor and their engineer.

## **STATUTE: MICHIGAN COMPILED LAWS (MCL) OF PART 115 OF THE NREPA**

### **Section 11511(2)**

**What constitutes development under MCL 324.11511(2) regarding initiation of the construction permit?**

Section 324.11511(2) provides that a construction permit shall expire one (1) year after the date of issuance "unless development under the construction permit is initiated within that year...." What qualifies as sufficient development to prevent expiration of the permit must be considered in light of the provision's purpose.

That purpose is to prevent speculative holding of a permitted landfill site in light of a county's interest in developing planned capacity. Given this purpose, "development" entails activities that evidence a commitment to proceed toward eventual construction and operation of the landfill.

"Development under the construction permit" for new green field sites is construction initiated after the permit is issued that are requisite to the solid waste disposal area. This includes activities which are particular to the development of a landfill (e.g., construction of a liner/leachate collection system, excavation to grade, new buildings and structures, installation of equipment, installation of monitoring wells for the approved monitoring program, and construction of leachate storage facilities) as well as those which are consistent with construction of a landfill as well as other activities (e.g., site grubbing and clearing and construction of site access roads).

In addition to the specific “type” of activity, the activity must also be of sufficient quality to evidence a commitment to proceed toward expeditious construction and operation of the landfill.

For existing facilities when a construction permit is issued for either a vertical expansion or horizontal extension, the limits of the original facility description are changed to include the increased capacity. In these cases, “development under the [new] construction permit” is equated with overall facility development and operation in accordance with its permits and county plan since such operation evidences sufficient intent to eventually employ the new permitted capacity.

Please note that the term “development under the construction permit” contained in Section 324.11509(1) is different and has a different purpose than the term “establish a disposal area without a construction permit” contained in Section 324.11509(1). The latter is meant to prevent an investment in landfill construction that would inhibit the Department’s ability to ensure appropriate design through review of the construction permit. Thus, activities which are consistent with developments beyond construction of a landfill (e.g., site grubbing and clearing), need not be considered “establishment of disposal area” if done prior to issuance of the construction permit, but could be considered “development under the construction permit” if done after the permit was issued.

**Section 11512**

09/01/00

**If a facility wishes to withdraw an operating license application, are we required to refund the application fee?**

No. Section 11512 does not require us to refund an operating license application fee.

**Section 11512(7)**

02/08/99

**Section 11512(7) requires fees for operating licenses at type II landfills. Is the type II landfill application fee for renewal licenses based on waste received per calendar day or on waste received per working day?**

Section 11512(8) states “Type II landfill application fees shall be based on the average amount of waste projected to be received daily during the license period. Application fees for license renewals shall be based on the average amount of waste received in the previous calendar year.” This average is a calendar day average and can be calculated by dividing the total amount of waste received in the previous calendar year by 365 days to obtain a daily average of waste received.