Attachment 8

Subpart CC Air Emissions from Tanks, Containers, and Surface Impoundments

FORM EQP 5111 ATTACHMENT 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 promulgat3ed 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 attachment addresses air emission control requirements for tanks, containers, and surface impoundments at the hazardous waste management facility for the *EQ Resource Recovery, Inc. (EQRR)* facility in *Romulus*, 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)

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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)]

See Attachment A2 for a complete list of potential waste codes. Information for organic concentration at the point of generation will be obtained through the waste characterization process identified in Attachment A3.

The EQRR facility is designed to recover organic solvents from used/spent waste solvents through thin-film evaporation methods. It is anticipated that received hazardous wastes to be recovered will typically be in excess of 500 ppmw. All tanks used for storage of these hazardous organic wastes will have a fixed roof and be attached to a closed vent system and will be controlled by a combustion device.

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]

By design the Waste Storage tanks identified in C2 are anticipated to be holding hazardous waste with organic concentrations well in excess of 500 ppmw. Information for organic concentration at the point of generation will be obtained through the waste characterization process identified in Attachment A3.

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)]

By design the Waste Storage tanks identified in C2 are anticipated to be holding hazardous waste with organic concentrations well in excess of 500 ppmw. Information for organic concentration at the point of generation will be obtained through the waste characterization process identified in Attachment A3.

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)]

By design the Waste Storage tanks identified in C2 are anticipated to be holding hazardous waste with organic concentrations well in excess of 500 ppmw. Information for organic concentration at the point of generation will be obtained through the waste characterization process identified in Attachment A3.

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)]

Not Applicable. Tanks will have level 2 controls.

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)]

Not Applicable. Tanks will have level 2 controls.

C11.C.1(f) Description of Procedures for Determining No Detectable Organic Compound Emissions
[R 299.9634 and 40 CFR §264.1083(d)]

Not applicable as it is assumed materials will be grater than 500 ppmw and controls will be established.

C11.C.2 Tanks Description
[R 299.9634 and 40 CFR §270.27(a)(1) and (3)]

See Attachment C2 and Design Plans B6

C11.C.2(a) Description of Level 1 Controls
[R 299.9634 and 40 CFR §264.1084(c)]

Not Applicable. Tanks will have level 2 controls.

C11.C.2(b) Description of Level 2 Controls
[R 299.9634 and 40 CFR §264.1084(d)]

Hazardous waste tanks will be fixed roof design with vent closures attached to a closed vent system and attached to a control device using combustion technology.

C11.C.2(b)(1) Tank Vented to Closed-vent System
[R 299.9634 and 40 CFR §264.1084(g)]

Tanks will have conservation vents and emergency relief devices that will be attached to a closed vent system. Final design of the closed vent system and control device has not been determined. Tanks will be filled and emptied through a transfer pump that is subject a to high-level cut-off. Tank inspection procedures can be found in Attachment A5.

C11.C.3 Surface Impoundment Description
[R 299.9634 and 40 CFR §264.1085]

Not Applicable

C11.C.4 Container Descriptions
[R 299.9634 and 40 CFR §264.1086]

See Attachment C1

C11.C.4(a) Description of Container Level 1 Controls
[R 299.9634 and 40 CFR §264.1086(b) and (c)]

Level 1 controls for EQRR containers apply to containers from 26 to 121 gallons in light material service with no stabilization. Containers are to remain closed unless material is being added or removed.

C11.C.4(a)(1) Michigan Department of Transportation Specifications
[R 299.9634 and 40 CFR §264.1086(c)(1)]

USDOT Regulation at 49 CFR are incorporated by reference

C11.C.4(a)(2) Cover and Closure Devices
[R 299.9634 and 40 CFR §264.1086(c)]

49CFR 173.24

C11.C.4(a)(3) Open-Top Containers with Organic Vapor-Suppressing Barrier
[R 299.9634 and 40 CFR §264.1086(c)]

Not Applicable

C11.C.4(a)(4) Inspection Procedures
[R 299.9634 and 40 CFR §264.1086(c)(4)]

Hazardous waste containers not emptied within 24 hours will be visually inspected, including its cover and closure devices, to check for visible cracks, holes, gaps or other open spaces into the interior of the container. The visual inspection will be conducted on or before the date that the container is accepted at the facility. Containers which are used to manage hazardous waste, and which remain at the facility for more than one year, will be visually inspected at least once every 12 months.

C11.C.4(b) Description of Container Level 2 Controls
[R 299.9634 and 40 CFR §264.1086(d)]

Level 2 Controls for EQRR apply to containers greater than 121 gallons in light material service with no stabilization. Containers are to remain closed unless material is being added or removed.

C11.C.4(b)(1) Michigan Department of Transportation Specifications
[R 299.9634 and 40 CFR §264.1086(d)(1)]

USDOT Regulation at 49 CFR are incorporated by reference

C11.C.4(b)(2) Container Operating with No Detectable Emissions
[R 299.9634 and 40 CFR §264.1086(d)(1)]

Not Applicable

C11.C.4(b)(3) Containers Demonstrated to be Vapor-Tight
[R 299.9634 and 40 CFR §264.1086(d)(1)]

Not Applicable

C11.C.4(b)(4) Container Waste Transfer Procedures
[R 299.9634 and 40 CFR §264.1086(d)(2)]

Transfers of hazardous waste to containers with level 2 controls (totes, tankers, or railcars) will be performed through the use of a submerged-fill pipe for totes, or bottom fill for tankers and railcars.

C11.C.4(b)(5) Cover and Closure Management Procedures
[R 299.9634 and 40 CFR §264.1086(d)(3)]

Level 2 Controls for EQRR apply to containers greater than 121 gallons in light material service with no stabilization. Containers are to remain closed unless material is being added or removed.

C11.C.4(b)(6) Inspection Procedures
[R 299.9634 and 40 CFR §264.1086(d)(4)]

Hazardous waste containers not emptied within 24 hours will be visually inspected, including its cover and closure devices, to check for visible cracks, holes, gaps or other open spaces into the interior of the container. The visual inspection will be conducted on or before the date that the container is accepted at the facility. Containers which are used to manage hazardous waste, and which remain at the facility for more than one year, will be visually inspected at least once every 12 months.

C11.C.4(c) Description of Container Level 3 Controls
[R 299.9634 and 40 CFR §264.1086(e)

Not Applicable. There will be no stabilization of wastes in containers.

C11.C.5 Description of Closed-Vent Systems and Control Devices
[R 299.9634 and 40 CFR §264.1087]

A closed vent system will connect vents from each Subpart CC Tank to a control device that uses combustion technology to achieve a 95% reduction of organic vapor.

C11.C.5(a) Description of Closed-Vent System
[R 299.9634 and 40 CFR §264.1087(b)]

A closed vent system will be used to capture vapor from fill and transfer processes of all Subpart CC tanks. Further description can be submitted when the vent system has completed final design.

C11.C.5(b) Description of Control Devices
[R 299.9634 and 40 CFR §264.1087(c)]

A control device will be installed and attached to the closed vent system that utilizes combustion technology to achieve 95% by weight reduction of captured vapor from affected tanks Further description can be submitted when the final design selection has been completed for the control device.

C11.C.5(c) Inspection Procedures
[R 299.9634 and 40 CFR §264.1087(b)(4) and (c)(7)]

Inspection forms will be completed for the control device and closed vent system when the systems are installed. Typical inspections will be visual and will include the use of a PID type device for measurement at connection points and areas of potential leak.

Automatic sensors and secondary gages are viewed weekly to ensure that negative pressure is maintained and that there are no leaks in the system. All piping, joints and valves will by checked annually for leaks.

If a leak is detected, it will be repaired as soon as practicable. The first attempt will be made no later than 5 calendar days after each leak is detected, except as provided in 40 CFR 264.1059. The leak will be repaired no later than 15 calendar days after it is detected, except as provided in 40 CFR 264.1059.

After proper notification to the Michigan Department of Environmental Quality (MDEQ) Director, the facility may elect to follow alternative standards for valves in gas/vapor or in light liquid service in accordance with 40 CFR264.1061 and/or 40CFR 264.1062.

C11.C.6 Description of Record Keeping Procedures
[R 299.9634 and 40 CFR §264.1089(a)]

Design and equipment documents and certifications will be maintained in the facility operating record for at least the useable life of the equipment or until closure of the facility. Inspection records for the control device, the closed vent, and tank closure devices will be maintained in the operating record for no less than three years.

C11.C.6(a) Description of Tank Record Keeping Procedures
[R 299.9634 and 40 CFR §264.1089(b)]

Design and equipment documents and certifications will be maintained in the facility operating record for at least the useable life of the equipment or until closure of the facility. Inspection records for the tanks and tank closure devices will be maintained in the operating record for no less than three years.

C11.C.6(a)(1) Tank Identification Numbers
[R 299.9634 and 40 CFR §264.1089(b)(1)(i)]

A Tank list can be found in Attachment C2 that provides a unique tank numbering scheme.

C11.C.6(a)(2) Inspection Records
[R 299.9634 and 40 CFR §264.1089(b)(1)(ii)]

See Attachment A5

C11.C.6(a)(3) Documentation for Determination of Maximum Organic Vapor Pressure for Fixed Roof Level 1 Controls
[R 299.9634 and 40 CFR §264.1089(b)(2)(i)]

Not Applicable

C11.C.6(b) Description of Container Level 3 Control Record Keeping Procedures
[R 299.9634 and 40 CFR §264.1089(d)]

Not Applicable

C11.C.6(c) Closed-Vent System and Control Device Records
[R 299.9634 and 40 CFR §264.1089(e)]

Design and equipment documents and certifications will be maintained in the facility operating record for at least the useable life of the equipment or until closure of the facility. Inspection records for the tanks and tank closure devices will be maintained in the operating record for no less than three years.

C11.C.6(c)(1) Performance Certification
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)]

A signed certification in conformance with 264.1089(e)(1)(i) will be prepared when final design for the control device established.

C11.C.6(c)(2) Design Analysis Documentation
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(ii)]

Either a design analysis or a performance test will be planned and completed upon final design and installation.

C11.C.6(c)(3) Performance Test Plan and Results
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(iii)]

Either a design analysis or a performance test will be planned and completed upon final design and installation.

C11.C.6(c)(4) Descriptions of Sensors, Modifications, and Locations
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(iv)]

This will be available upon completion of final design and equipment selection.

C11.C.6(c)(5) Planned Routine Maintenance Schedules
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(v)]

This will be incorporated into the malfunction abatement plan for the control device and closed

vent when final design and equipment installation is completed.

C11.C.6(c)(6) Descriptions of Unplanned Malfunctions
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(vi)]

This will be incorporated into the malfunction abatement plan for the control device and closed vent when final design and equipment installation is completed.

C11.C.6(c)(7) Management of Carbon Removed from a Carbon Absorption System
[R 299.9634 and 40 CFR §264.1089(e)(1)(i)(vii)]

Not Applicable

C11.C.6(d) Records Required for Exempt Units
[R 299.9634 and 40 CFR §264.1089(f)]

Not Applicable

C11.C.6(d)(1) Waste Determination Results
[R 299.9634 and 40 CFR §264.1089(f)(1)]

Not Applicable

C11.C.6(d)(2) Identification Numbers of Treatment Units
[R 299.9634 and 40 CFR §264.1089(f)(2)]

Not Applicable

C11.C.6(e) Description of Covers Designated as Unsafe to Inspect and Monitor
[R 299.9634 and 40 CFR §264.1089(g)]

Not Applicable

C11.C.6(f) 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(g) Documentation Required for Tanks and Containers Not Using Air Emission Controls
[R 299.9634 and 40 CFR §264.1089(i)]

Not Applicable

C11.C.6(h) Certifications and Identification of Federal Clean Air Act of 1990 Requirements
[R 299.9634 and 40 CFR §264.1089(i)(3)]

Not Applicable