

State Registration Number
M4782

**RENEWABLE OPERATING PERMIT
STAFF REPORT**

ROP Number
MI-ROP-M4782-2024

**EQ - A US Ecology Company - Michigan Disposal Waste Treatment Plant
and
Wayne Disposal, Inc.**

State Registration Number (SRN): M4782

Located at

49350 I-94 Service Drive, Belleville, Wayne County, Michigan 48111

Permit Number: MI-ROP-M4782-2024

Staff Report Date: September 11, 2023

This Staff Report is published in accordance with Sections 5506 and 5511 of Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451). Specifically, Rule 214(1) of the administrative rules promulgated under Act 451, requires that the Michigan Department of Environment, Great Lakes, and Energy (EGLE), Air Quality Division (AQD), prepare a report that sets forth the factual basis for the terms and conditions of the Renewable Operating Permit (ROP).

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State Registration Number

M4782

RENEWABLE OPERATING PERMIT

SEPTEMBER 11, 2023 - STAFF REPORT

ROP Number

MI-ROP-M4782-2024

Purpose

Major stationary sources of air pollutants, and some non-major sources, are required to obtain and operate in compliance with an ROP pursuant to Title V of the federal Clean Air Act; and Michigan’s Administrative Rules for Air Pollution Control promulgated under Section 5506(1) of Act 451. Sources subject to the ROP program are defined by criteria in Rule 211(1). The ROP is intended to simplify and clarify a stationary source’s applicable requirements and compliance with them by consolidating all state and federal air quality requirements into one document.

This Staff Report, as required by Rule 214(1), sets forth the applicable requirements and factual basis for the draft ROP terms and conditions including citations of the underlying applicable requirements, an explanation of any equivalent requirements included in the draft ROP pursuant to Rule 212(5), and any determination made pursuant to Rule 213(6)(a)(ii) regarding requirements that are not applicable to the stationary source.

General Information

Stationary Source Mailing Address:	EQ - A US Ecology Company - Michigan Disposal Waste Treatment Plant and Wayne Disposal, Inc. 49350 I-94 Service Drive Belleville, Michigan 48111
Source Registration Number (SRN):	M4782
North American Industry Classification System (NAICS) Code:	562211
Number of Stationary Source Sections:	2
Is Application for a Renewal or Initial Issuance?	Renewal
Application Number:	201400200
Responsible Official:	Kerry Durnen, P.E. Vice President & General Manager 734-699-6265
AQD Contact – District Inspector:	Jonathan Lamb Senior Environmental Quality Analyst 313-348-2527
AQD Contact – ROP Writer:	Julie L. Brunner, P.E. Environmental Quality Specialist 517-275-0415
Date Application Received:	December 26, 2014
Date Application Was Administratively Complete:	December 26, 2014
Is Application Shield in Effect?	Yes
Date Public Comment Begins:	September 11, 2023
Deadline for Public Comment:	October 11, 2023

Source Description

EQ - A US Ecology Company - Michigan Disposal Waste Treatment Plant and Wayne Disposal, Inc. (Site 2) is located along the North Interstate 94 Service Drive west of Beck Road and east of Willow Run Creek. Airport Service Drive runs north, along the perimeter, and separates the facility area from the Willow Run Airport. An industrial area lies to the west which includes a wastewater treatment facility and an asphalt plant. A baseball field and a residential neighborhood lies to the east. There is a rest area directly south of the facility and adjacent to I-94 freeway. There are numerous apartment complexes south and across I-94 freeway. This residential area, which is south of South Interstate 94 Service Drive, is surrounded by Belleville Lake.

EQ - A US Ecology Company - Michigan Disposal Waste Treatment Plant (MDWTP) is co-located at the same site as Wayne Disposal Site 2 Hazardous Waste Landfill. MDWTP is a hazardous and non-hazardous waste processing facility with operations that include receiving, storage and treatment. Hazardous waste generated offsite is treated to meet land disposal restrictions and buried in a hazardous waste landfill or sent to a Type II landfill, if permissible. The facility processes bulk liquid waste, bulk solid waste, and containerized waste. The waste is processed in two separate building bays, the east side waste treatment building or bay (FGEAST) and west side waste treatment building or bay (FGWEST). The buildings are equipped to handle different waste materials with waste and reagent storage areas, treatment tanks, and air pollution control devices.

The stabilization process in both buildings starts with the waste being transferred to one of four treatment tanks where it is stabilized by adding varying amounts of oxidant (such as sodium hypochlorite) and lime or cement kiln dust. After it has been determined that the waste meets land disposal restriction criteria, the waste is removed and shipped to a landfill, either the hazardous waste landfill on-site or an off-site facility.

Except for the waste storage treatment tanks A to H (installed between July 1, 1991 and June 1, 1997), the rest of the equipment at MDWTP was installed in July 1991. The pollution control devices for each treatment process and/or equipment are as follows:

- FGEAST (east side treatment process): Baghouse dust collector, regenerative thermal oxidizer, and wet scrubber in series.
- FGWEST (west side treatment process): Baghouse dust collector.
- EUSILO1-3 and EUSILO4-6 (reagent silos): Each treatment reagent silo has its own baghouse.
- FGLIQWASTETKS (liquid waste storage tanks): The tanks are controlled by two shared carbon adsorption canisters in series.

Wayne Disposal Inc. (WDI) was established before hazardous waste handling and disposal operations were regulated under the state law or the Federal Resource Conservation and Recovery Act of 1976 (RCRA). WDI, defined as a hazardous and non-hazardous waste processing facility, began accepting waste in late 1960's. Both municipal solid waste and hazardous waste were accepted for disposal at the facility. The facility is comprised of several closed landfill disposal areas: Fons, Old Wayne, Site 1 and Site 2. Site 2 is comprised of several Master Cells "MCs." For years, there have been no active disposal at any of the municipal solid waste landfill cells and a passive landfill gas collection system has been in operation at the closed sites (i.e. Fons, Old Wayne and Site 1). Each one of the MCs in Site 2 ceased accepting municipal solid waste at different times within the period from 1978 until 1993. Site 2 continues to receive hazardous waste in "piggy-back landfill cells" (i.e. new cells built over older cells). MC VI is the current active cell for hazardous waste operations.

The active landfill gas collection and control system was capped after USEPA's approval for removal in May 2017 and passive vents were installed in all permanently closed cells. Any modification to the hazardous waste landfill as well as the hazardous waste operations at WDI are regulated by EGLE's Materials Management Division (MMD). The Hazardous Waste Management Facility Operating License issued by EGLE's MMD to WDI specifies the hazardous waste activities that WDI can perform.

Wayne Energy Recovery (WER) ceased operations on December 28, 2017. WER was built in 1986 to collect landfill gas from Site 2. When WER was in operation, the powerhouse included four landfill gas-fired spark ignition reciprocating internal combustion engines (RICE). WER was decommissioned in 2019, when it was demonstrated the active landfill gas collection and control system on Site 2 can be decommissioned without damage to the landfill cap. Removal of these processes reduces the facility's potential emissions by 190 tons per year of nitrogen oxides and 39.9 tons per year of carbon monoxide. The requirements for WER have been removed from the ROP.

The following table lists stationary source emission information as reported to the Michigan Air Emissions Reporting System (MAERS) for the year **2022**.

TOTAL STATIONARY SOURCE EMISSIONS

Pollutant	Tons per Year
Carbon Monoxide (CO)	3.72
Lead (Pb)	0.000005
Nitrogen Oxides (NO _x)	1.99
PM10*	5.98
Sulfur Dioxide (SO ₂)	Not Reported
Volatile Organic Compounds (VOCs)	0.85

* Particulate matter (PM) that has an aerodynamic diameter less than or equal to a nominal 10 micrometers.

The following table lists the potential for Hazardous Air Pollutant emissions as calculated by the source:

Individual Hazardous Air Pollutants (HAPs) *	Tons per Year
Benzene	6.99
Carbon Tetrachloride**	2.47
Chloroform**	26.48
Hydrogen chloride	130.41
Methylene chloride	131.91
Trichloroethene**	39.93
Tetrachloroethylene	111.79
1,1,2,2-Tetrachloroethane	1.57

* As listed pursuant to Section 112(b) of the federal Clean Air Act.

** Combined total emissions of these volatile organic compounds are limited to 47.52 tons per year in FGEAST and 40.2 tons per year in FGWEST.

See Parts C and D in the ROP for summary tables of all processes at the stationary source that are subject to process-specific emission limits or standards.

Regulatory Analysis

The following is a general description and history of the source. Any determinations of regulatory non-applicability for this source are explained below in the Non-Applicable Requirement part of the Staff Report and identified in Part E of the ROP.

The stationary source is in Wayne County, which is currently designated by the United States Environmental Protection Agency (USEPA) as attainment/unclassified for all criteria pollutants with the exception of a portion of Wayne County is currently designated by the United States Environmental Protection Agency (USEPA) as a non-attainment area with respect to the SO₂ standard. The facility is not located in this portion of Wayne County.

The stationary source is subject to Title 40 of the Code of Federal Regulations (CFR) Part 70 because the potential to emit of volatile organic compounds exceeds 100 tons per year and the potential to emit of any single HAP regulated by Section 112 of the federal Clean Air Act, is equal to or more than 10 tons per year and/or the potential to emit of all HAPs combined is equal to or more than 25 tons per year.

No emission units at the stationary source were subject to the Prevention of Significant Deterioration regulations of Part 18, Prevention of Significant Deterioration of Air Quality of Act 451, or 40 CFR 52.21 because at the time of New Source Review permitting the potential to emit of any regulated New Source Review pollutant was less than 250 tons per year.

The facility is subject to various state rules as well as federal regulations. These include state only air toxics rules and Rule 702 for Best Available Control Technology (BACT) of new sources of volatile organic compounds.

Liquid waste storage tanks EULIQWASTETK16, EULIQWASTETK17, EULIQWASTETK18, and EULIQWASTETK19 in FGLIQWASTETKS at the stationary source are subject to the Standards of Performance for Storage Vessels for Petroleum Liquids and Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) promulgated in 40 CFR Part 60, Subparts A, K, Ka, and Kb. Additional liquid waste tank, EULIQWASTETK21, is not subject to 40 CFR Part 60, Subpart Kb because it applies to tanks with capacity greater than or equal to 75 cubic meters and it is less than 75 cubic meters in size. For liquid waste tanks, EULIQWASTETK25 and EULIQWASTETK27, a demonstration was submitted that under worst-case scenarios the solution vapor pressure does not exceed 15 kilopascal (kPA). The liquid waste tanks, EULIQWASTETK25 and EULIQWASTETK27, are exempt from 40 CFR Part 60, Subpart Kb.

Emission units in FGEAST and FGWEST, and EUASBESTOS at the stationary source are subject to the National Emission Standards for Hazardous Air Pollutants for Asbestos promulgated in 40 CFR Part 61, Subparts A and M.

Emission units in FGEAST, FGWEST, FGLIQWASTETKS, and FGTMTFACILITY at the stationary source are subject to the National Emission Standards for Hazardous Air Pollutants for Benzene Waste Operations promulgated in 40 CFR Part 61, Subparts A and FF.

Emission units in FGEAST, FGWEST, FGLIQWASTETKS, FGTMTFACILITY, and additional liquid waste tanks (EULIQWASTETK21, EULIQWASTETK25, EULIQWASTETK27) at the stationary source are subject to the National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations promulgated in 40 CFR Part 63, Subparts A and DD. The emission units (process equipment) in the operation are off-site material management units. The emission units (process equipment) have no process vents.

The landfill identified in EUASBESTOS at the stationary source is subject to the National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills as promulgated in 40 CFR Part 63, Subparts A and AAAA. The municipal solid waste landfill is closed and no longer subject to the collection and control system requirements in 40 CFR Part 63, Subpart AAAA. But, this landfill is actively accepting or has accepted asbestos waste in the past and must meet the design/equipment parameters and recordkeeping requirements in 40 CFR 63.1983(d).

The diesel fuel-fired engine identified as EUCummins1979 at the stationary source is subject to the National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) promulgated in 40 CFR Part 63, Subparts A and ZZZZ. EUCummins1979 is an existing stationary RICE because construction was commenced before June 12, 2006 and it was not reconstructed prior to installation at the facility.

No emission units at the stationary source are subject to the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters promulgated in 40 CFR Part 63, Subparts A and DDDDD. Any boilers have been identified as hot water boilers (<1.6 million British Thermal Units per hour (MMBTU/hr) and <120 gallon capacity), and therefore not subject.

The monitoring conditions contained in the ROP are necessary to demonstrate compliance with all applicable requirements and are consistent with the "Procedure for Evaluating Periodic Monitoring Submittals."

FGLIQWASTETKS does not have emission limitations or standards that are subject to the federal Compliance Assurance Monitoring (CAM) regulation pursuant to 40 CFR Part 64, because the emission units do not have potential pre-control emissions over the major source thresholds. The conservation vents of the tanks are controlled by two common carbon adsorption canisters, in series. The pre-control VOC emissions were conservatively estimated by AQD to be approximately 11 tons per year.

The emission limitation(s) or standard(s) at the stationary source with the underlying applicable requirement(s) of 40 CFR Part 63, Subpart DD for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations from emission units in FGEAST, FGWEST, FGLIQWASTETKS, and FGTMTFACILITY are exempt from the CAM regulation pursuant to 40 CFR 64.2(b)(1)(i) because the emission limitation(s) or standard(s) meet the CAM exemption for an NSPS or MACT proposed after November 15, 1990.

The following Emission Units/Flexible Groups are subject to CAM:

Emission Unit/ Flexible group ID	Pollutant/ Emission Limit	UAR(s)	Control Equipment	Monitoring (Include Monitoring Range)	Emission Unit/Flexible Group for CAM	PAM?*
EUSTORAGE TANK1/ FGEAST	VOC = 22.85 pph	Rule 225 Rule 702(a)	Regenerative Thermal Oxidizer	Combustion Chamber Temperature = More than 1500°F 100% Capture efficiency = Monitor air flow through the building (19,500 to 26,400 CFM)	EUSTORAGE TANK1/ FGEAST	No
	VOC = 47.52 tpy	Rule 702(a)				
	PM = 0.028 lb per 1000 lb of exhaust air	Rule 331(1)(c)				
PM10 = 4.0 tpy	Rule 205(3)					
EUSTORAGE TANK2/ FGWEST	PM = 0.028 lb/1000 lb exhaust air	Rule 331(1)(c)	Baghouse Dust Collector	Pressure Drop = 1.5" – 8.0" Water Column (WC)	EUSTORAGE TANK2/ FGWEST	No
	20 tpy	Rule 205(3)				

*Presumptively Acceptable Monitoring (PAM)

VOC emissions from FGEAST are controlled by a regenerative thermal oxidizer (RTO). The RTO chamber temperature was selected because it is indicative of the RTO operation. A decrease in temperature is indicative of potentially higher VOC emissions. By maintaining the operation temperature at or above the minimum, a level of control efficiency can be expected to be achieved. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. The indicator range of RTO combustion chamber temperature was selected because a decrease in temperature is indicative of potentially higher VOC emissions.

Most recent performance testing of the FGEAST RTO was completed on July 12, 2022. For the duration of the test, the process operation conditions at FGEAST (i.e., air flow rate and RTO chamber temperature) were maintained within the required ranges established by the permit conditions. The results showed compliance with all the permitted emission rates for the regulated pollutants that were tested. The VOC destruction efficiency was determined to be 97.3%, which is above the minimum 95% required by the permit.

Particulate matter (PM and PM10) emissions from FGEAST and FGWEST are controlled by dust collector baghouses. Monitoring pressure drop across the baghouse provides a means of detecting a change in the performance of the baghouse filters that could lead to an increase in particulate matter emissions. The baghouse pressure drop is an indicator that the baghouse filters may need to be replaced to prevent particulate matter emissions in excess of the applicable particulate limits. An indicator range is chosen for each baghouse filter pressure drop. An excursion triggers an inspection and corrective action (such as changing the filters).

Please refer to Parts B, C and D in the draft ROP for detailed regulatory citations for the stationary source. Part A contains regulatory citations for general conditions.

Source-Wide Permit to Install (PTI)

Rule 214a requires the issuance of a Source-Wide PTI within the ROP for conditions established pursuant to Rule 201. All terms and conditions that were initially established in a PTI are identified with a footnote designation in the integrated ROP/PTI document.

The following table lists all individual PTIs that were incorporated into previous ROPs. PTIs issued after the effective date of ROP No. MI-ROP-M4782-2010 are identified in Appendix 6 of the ROP.

PTI Number			
C-7133	C-8078	C-8079	C-8080
C-8081	C-8082	C-8083	C-8084
C-8085	C-8086	C-8087	C-8088
C-8089	C-8640	C-8641	C-8642
C-8643	C-9271	C-9272	C-9868
C-9869	C-9870	C-9871	C-9872
C-9873	C-9874	C-9875	C-9876
C-9877	C-9878	C-9879	C-11379
C-11380	C-11512	C-11513	C-11514
C-11515	7-98	7-98A	7-98B
31-09*	31-09A*	26-10	80-10

* Process/equipment discontinued and/or dismantled. PTI not in the draft ROP.

Streamlined/Subsumed Requirements

This ROP does not include any streamlined/subsumed requirements pursuant to Rules 213(2) and 213(6).

Non-applicable Requirements

Part E of the ROP lists requirements that are not applicable to this source as determined by the AQD, if any were proposed in the ROP Application. These determinations are incorporated into the permit shield provision set forth in Part A (General Conditions 26 through 29) of the ROP pursuant to Rule 213(6)(a)(ii).

Processes in Application Not Identified in Draft ROP

The following table lists PTI exempt processes that were not included in the Draft ROP pursuant to Rule 212(4). These processes are not subject to any process-specific emission limits or standards.

PTI Exempt Emission Unit ID	Description of PTI Exempt Emission Unit	Rule 212(4) Citation	PTI Exemption Rule Citation
EUFURNACE	Miscellaneous furnaces used for space heating	Rule 212(4)(b)	Rule 282(2)(b)(i)
EUTANKFARMHEATER	Tank Farm natural gas-fired heater, 0.926 MMBTU/hr (determined to be a hot water boiler <120 gallon capacity)	Rule 212(4)(b)	Rule 282(2)(b)(i)
EUWWTPHEATER#334, EUWWTPHEATER#239, EUWWTPHEATER#499	Three (3) wastewater treatment plant natural gas-fired heaters, 0.750 MMBTU/hr each (determined to be a hot water boiler <120 gallon capacity)	Rule 212(4)(b)	Rule 282(2)(b)(i)

Draft ROP Terms/Conditions Not Agreed to by Applicant

This draft ROP does not contain any terms and/or conditions that the AQD and the applicant did not agree upon pursuant to Rule 214(2).

Compliance Status

The AQD finds that the stationary source is expected to be in compliance with all applicable requirements as of the effective date of this ROP.

Action taken by EGLE, AQD

The AQD proposes to approve this ROP. A final decision on the ROP will not be made until the public and affected states have had an opportunity to comment on the AQD's proposed action and draft permit. In addition, the USEPA is allowed up to 45 days to review the draft ROP and related material. The AQD is not required to accept recommendations that are not based on applicable requirements. The delegated decision maker for the AQD is Brad Myott, Field Operations Manager. The final determination for ROP approval/disapproval will be based on the contents of the ROP Application, a judgment that the stationary source will be able to comply with applicable emission limits and other terms and conditions, and resolution of any objections by the USEPA.

State Registration Number
M4782

RENEWABLE OPERATING PERMIT
NOVEMBER 20, 2023 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-M4782-2024

Purpose

A Staff Report dated September 11, 2023, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 30-day public comment period as described in Rule 214(3). In addition, this addendum describes any changes to the draft ROP resulting from these pertinent comments.

General Information

Responsible Official:	Kerry Durnen, P.E. Vice President & General Manager 734-699-6265
AQD Contact – District Inspector:	Jonathan Lamb Senior Environmental Quality Analyst 313-348-2527
AQD Contact – ROP Writer:	Julie L. Brunner, P.E. Environmental Quality Specialist 517-275-0415

Summary of Pertinent Comments

Comments were received from EPA during the 30-day public comment period.

EPA Comment No. 1:

The draft ROP incorporates several requirements which cite 40 CFR Part 63 Subpart DD (MACT DD) as the underlying applicable authority. However, it is unclear from the permit which specific requirements from MACT DD are being incorporated or cited to establish the authority for each permit condition. 40 CFR 70.6(a)(1)(i) requires, in relevant part, for Part 70 permits to specify and reference the origin of and authority for each term or condition in the permit. In order to clearly identify the authority for each condition, we request that you evaluate the following permit conditions to determine which MACT DD requirement apply and, as necessary, revise the citation to origin and authority to specifically identify the underlying applicable requirement.

- a. FGEAST SC III.1, IV.1, IV.2, IV.3, IV.4, IV.5, IV.7, V.1, V.2, VI.1, VI.2, and VI.4
- b. FGWEST SC VI.9, VI.10
- c. FGLIQWASTETKS SC II.1, VI.5, VI.6

AQD Response No. 1:

The underlying PTI includes global citations for MACT DD as underlying applicable requirements (UARs) which was standard for the time the PTI was written. The specific requirements applicable to the source for MACT DD are in flexible group FGMACTDD with the specific UAR listed. To make clear the authority for each condition within the PTI, the specific UAR for MACT DD was added to the global citation for MACT DD in applicable special conditions from the PTI. For FGEAST SC VI.4, MACT DD is not an underlying applicable requirement for the special condition and the global citation for MACT DD was removed.

EPA Comment No. 2:

FGEAST SC IV.5 requires the permittee to determine the negative pressure in the waste treatment building using smoke tubes (or alternative method as approved by AQD) and by visual observation of the air movement and direction. Although this condition does not specify the frequency for conducting this visual observation, we understand that FGEAST SC V.2 is intended to apply to this determination and will occur annually. We request that you clarify for the record whether FGEAST SC V.2 and its observation frequency applies to the visual observation required in FGEAST SC IV.5. We further request that you clarify whether the notification requirement specified in FGEAST SC V.7 applies to this visual observation. We note that SC V.2 is a testing/sampling requirement applicable to FGEAST, but the condition is unclear regarding the requirement to submit a notification before conducting this annual visual observation. If the notification requirement is intended to apply to the annual visual observation, we request that you revise the permit as appropriate to more clearly specify that the permittee must submit a notification to EGLE prior to the annual visual observation.

AQD Response No. 2:

The testing required in FGEAST SC V.2 for VOC capture efficiency is part of the compliance demonstration for FGEAST SC IV.1, IV.2, and IV.5. The testing required in FGEAST SC V.2 is conducted at least once every year so, at a minimum, annually. Testing methods for VOC, hydrogen chloride, and HAPs are listed in FGEAST SC V.3 which also includes the requirements to submit a test plan prior to testing and a report of test results after testing. The testing method for VOC capture efficiency using Procedure T, found in 40 CFR 52.741, Appendix B was added to the table of test methods so it is clear that a testing plan must be submitted prior to the testing required in FGEAST SC V.2, and a test report of results must be submitted after testing. Testing notifications for all performance testing which includes VOC capture efficiency are required in FGEAST SC V.7 not less than 30 days before testing.

EPA Comment No. 3:

FGEAST SC VI.8 and VI.9 requires the permittee to maintain the caustic scrubber flow rate between 225 gpm and 350 gpm and the caustic scrubber pH at 7.3 or higher. However, the September 20, 2016 Preventative Maintenance and Malfunction Abatement Program for US Ecology Company, Michigan (MAP) specifies different levels. FGEAST SC III.2 requires the permittee to implement the MAP. In particular, the MAP in Section 5.3.4 states that the caustic scrubber flow rate will be maintained between 225 gpm and 300 gpm. This provision of the MAP also specifies that the caustic scrubber pH is tracked "to ensure the pH remains above a Low-Low pH level of 7.2". Since the values differ, it is unclear which flow rate range and minimum pH applies to the permittee. To resolve potential confusion and to ensure compliance with both the permit and the MAP, we request that you verify which parameter range the permittee must maintain and either revise the permit to be consistent with the MAP, revise the MAP to be consistent with the permit, or provide justification explaining why the values specified in the permit may differ from those within the MAP.

AQD Response No. 3:

An updated Preventative Maintenance and Malfunction Abatement Program was provided by US Ecology. In the plan dated 10-24-2023, updates to Section 5.3.4 to align with the requirements in FGEAST SC VI.8 and VI.9 were made.

EPA Comment No. 4:

FGEAST SC VI.21 defines an excursion for CAM purposes. As written, FGEAST SC VI.21 specifies the level at which an excursion will be deemed to occur but does not specify the averaging period associated with an exceedance. 40 CFR 64.6(c)(2) requires the permit to specify the level at which an excursion will be deemed to occur, including the appropriate averaging period associated with each excursion. To ensure that a CAM excursion is defined consistent with 40 CFR 64.6(c)(2), we request that you revise the permit condition to specify an appropriate averaging period for each specified indicator level. We note that the permit currently requires the permittee to measure baghouse pressure drop every five minutes (FGEAST SC VI.14), monitor combustion temperature every five minutes (FGEAST SC VI.15), and record

air flow at least once daily (FGEAST SC VI.16). For the purpose of defining an excursion, we recommend using the specified frequencies to define the averaging period associated with each level.

AQD Response No. 4:

For FGEAST SC VI.21, added “5-minute block average” for the pressure drop across the baghouse, “5-minute block average” for the minimum combustion temperature, and “daily block average” for air flow through waste treatment process building to define the averaging periods for an excursion.

EPA Comment No. 5:

We request that you verify the in-permit references to monitoring for the VOC, HAP, and particulate limits included in FGWEST Section I. In particular, the VOC and HAP limits reference FGWEST SC VI.5 for monitoring, but the monitoring in SC VI.5 applies to particulates. On the other hand, the particulate limits do not reference SC VI.5. Specific conditions are included below.

- a. VOC limits : FGWEST SC I.1, I.2, I.3 – I.8.
- b. Particulate limits: FGWEST SC I.10 – 1.12.

AQD Response No. 5:

Corrected the in-permit references for FGWEST SC I.1 – I.9 by deleting the reference to SC VI.5 which applies to particulates. For FGWEST SC I.2, added the in-permit reference to SC VI.7 which is what should have been referenced instead of SC VI.5. For the particulate limits in FGWEST SC I.10 – 1.12, added SC VI.5 for particulate monitoring and records. Deleted SC VI. 6 which was a numbering error resulting in referencing VOC recordkeeping.

Also, corrected FGEAST SC I.14 and I.15 in-permit references. For SC I.14, the reference pointing to SC VI.9 should be SC VI.10. For SC I.15, the reference pointing to SC VI.10 should be SC VI.11.

EPA Comment No. 6:

FGWEST SC VI.12 allows the permittee to change the frequency of observations with the written approval of the AQD District Supervisor. As written, it is unclear which changes the permittee is allowed to make to the monitoring frequency without requiring a significant modification to the ROP. Particularly, 40 CFR 70.7(e)(4) specifies that a significant modification if a permit modification does not qualify as a minor permit modification or an administrative amendment. 40 CFR 70.7(e)(2)(i)(A)(2) specifies revisions to monitoring may only be considered a minor permit modification if there are no significant changes to monitoring. Significant changes to monitoring includes, but is not limited to, reducing the frequency of required monitoring. As written, it appears that the permittee may request less frequent monitoring and be granted approval to do so without modifying the ROP. In order to ensure that changes to monitoring allowed by FGWEST SC VI.12 would not also require a significant modification to the ROP, we request that EGLE specify what kind of changes to the frequency are allowed and revise FGWEST SC VI.12 as necessary to ensure a significant change to monitoring would not occur.

AQD Response No. 6:

Added a special condition per Rule 213(3) that the permittee may only increase the frequency of visible emission observations required in SC VI.12 so that a significant modification of the ROP will not be required. The permittee shall keep, in a satisfactory manner, a log of all visible emission observations (described in Appendix 3-1) of the silo baghouse exhausts including the time, duration, and a description of any increases in monitoring frequency and the reason for the changes. The permittee shall keep all records on file and make them available to the Department upon request. This special condition was numbered SC VI.13 and the subsequent conditions renumbered.

Also, FGEAST SC VI.13 allows the permittee to change the frequency of observations with the written approval of the AQD District Supervisor. This was corrected by adding a special condition per Rule 213(3) that the permittee may only increase the frequency of visible emission observations required in SC VI.13. The permittee shall keep, in a satisfactory manner, a log of all visible emission observations (described in Appendix 3-1) of the silo baghouse exhausts including the time, duration, and a description of any

increases in monitoring frequency and the reason for the changes. The permittee shall keep all records on file and make them available to the Department upon request. This special condition was numbered SC VI.14 and the subsequent conditions renumbered.

EPA Comment No. 7:

The draft ROP incorporates several requirements which cite 40 CFR Part 61, Subpart FF as the underlying applicable authority. However, it is unclear from the permit which specified requirements from Subpart FF are being incorporated or used to establish the authority for each permit condition. 40 CFR 70.6(a)(1)(i) requires, in relevant part, for Part 70 permits to specify and reference the origin of and authority for each term or condition in the permit. In order to clearly identify the authority for each condition, we request that you evaluate the following permit conditions to determine which Subpart FF requirement applies and, as necessary, revise the citation to origin and authority to specifically identify the underlying applicable requirement.

a. FGLIQWASTETKS SC II.2, VI.7

AQD Response No. 7:

The UAR for Subpart FF of 40 CFR 61.342 Standards: General was added to the global citation for Subpart FF in applicable special conditions for FGLIQWASTETKS SC II.2 and VI.7.

Also, the UAR for Subpart FF of 40 CFR 61.342 Standards: General was added to the global citation for Subpart FF in applicable special conditions for FGWEST SC III.3 and VI.11.

EPA Comment No. 8:

FGLIQWASTETKS SC VI.8 and VI.9 cite 40 CFR 60.115(c) and 60.116(b), respectively, as the underlying requirement. However, the citation to origin and authority should instead refer to 40 CFR 60.115b(c) and 60.116b(b). We request that you correct the citation to origin and authority.

AQD Response No. 8:

The citation in FGLIQWASTETKS SC VI.8 and VI.9 has been corrected to 40 CFR 60.115b(c) and 60.116b(b), respectively.

EPA Comment No. 9:

FGTMTFACILITY SC III.2 requires the permittee to develop and submit a written startup, shutdown, and malfunction plan pursuant to MACT DD. However, SSM plans are no longer required by MACT DD since those provisions have been removed in more recent rulemakings. In particular, 80 FR 14248, Section IV.C, FR page 14260, explains that SSM exemptions are no longer allowed under MACT DD (see <https://www.federalregister.gov/documents/2015/03/18/2015-05463/national-emission-standards-for-hazardous-air-pollutants-off-site-waste-and-recovery-operations>). To ensure consistency with MACT DD, we request that you remove the SSM plan requirement.

AQD Response No. 9:

FGTMTFACILITY SC III.2 with the startup, shutdown, and malfunction (SSM) plan requirement has been removed.

EPA Comment No. 10:

FGTMTFACILITY SC IV.1 and IV.2 requires the flexible group to generally meet applicable requirements within MACT DD and 40 CFR Part 61, Subpart FF, respectively. However, it is unclear which specific requirements the permittee must meet within each standard for emissions units included in the flexible group. 40 CFR 70.6(a)(1) requires the permit to incorporate emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance. While these requirements are incorporated into the permit generally, the lack of specificity makes it difficult to identify the applicable emission limitations and to evaluate whether the source is meeting those requirements. To ensure that all applicable requirements are incorporated into the permit, we request that you identify which specific requirements within MACT DD and 40 CFR Part 61,

Subpart FF apply and, as necessary, revise the citation to origin and authority to more specifically identify the applicable requirements within the permit.

AQD Response No. 10:

The specific citations applicable to the source for MACT DD have been added as UARs to FGTMTFACILITY SC IV.1. The specific citations applicable to the source for Subpart FF have been added as UARs to FGTMTFACILITY SC IV.2.

EPA Comment No. 11:

FGTMTFACILITY SC V.1 and V.2 require the permittee to conduct applicable testing as required in 40 CFR 63.694 and 40 CFR 61.355, respectively. Although incorporated into the permit, we note that the testing requirement referenced in each permit condition specifies different testing requirements. To ensure that the permit incorporates applicable testing requirements and to better ensure permit clarity, we request that you revise the citation to origin and authority to specifically identify which testing the permittee must perform within MACT DD and Part 61, Subpart FF, respectively.

AQD Response No. 11:

The specific citations to conduct applicable testing as required in 40 CFR 63.694 and 40 CFR 61.355 have been added to FGTMTFACILITY SC V.1 and V.2, respectively.

EPA Comment No. 12:

FGMACTDD SC IV.1(a)(i) allows the permittee to use a closed vent system with no detectable organic emissions using the procedure in 40 CFR 63.694(k). It is unclear from the permit record whether the permittee operates this kind of closed vent system. We request that you verify whether the permittee operates a closed vent system with no detectable organic emissions. If you determine that the permittee does operate this kind of closed vent system, then we request that you incorporate applicable procedures specified in 40 CFR 63.694(k) and applicable monitoring requirements specified at 40 CFR 63.695(c)(1).

AQD Response No. 12:

The permittee operates a closed vent system that is designed to operate at a pressure below atmospheric pressure as allowed in FGMACTDD SC IV.1.a.ii which complies with 40 CFR 63.693(c)(1)(ii). Negative pressure is maintained in the East Bay (FGEAST) treatment building by operating the air system between 19,500 and 26,400 cubic foot per minute (cfm). The closed vent system has a pressure gauge at the baghouse. The readings are readily accessible from the control room. Baghouse pressure is maintained between 1.5 and 8 inches of water column which is below atmospheric pressure.

EPA Comment No. 13:

FGMACTDD SC VII.4(b) incorporates applicable reporting requirements specified at 40 CFR 63.697. However, the requirement to submit a Notification of Performance Test at 40 CFR 63.697(b)(1) is not included in the permit. We request that you evaluate whether 40 CFR 63.697(b)(1) should be included in the permit. We note that FGMACTDD SC V.4 requires the permittee to submit a testing notification at least 30 days ahead of testing, but the underlying applicable requirement for SC V.4 only refers to R 336.1213(3). If SC V.4 is intended to meet the requirement of 40 CFR 63.697(b)(1), then we recommend that you revise the citation to origin and authority to also reference 40 CFR 63.697(b)(1).

AQD Response No. 13:

The specific citation to submit a Notification of Performance Test per 40 CFR 63.697(b)(1) was added to FGMACTDD SC V.4.

Changes to the September 11, 2023 Draft ROP

The following changes were made to the draft ROP.

FGEAST:

- SC I.14 - Corrected the "Monitoring/Testing Method" column to point to SCs V.4, VI.10, and VI.12.
- SC I.15 - Corrected the "Monitoring/Testing Method" column to point to SCs V.4 and VI.11.
- SC III.1 - Added the UAR of 40 CFR 63.685(i)(1).
- SC IV.1 - Added the UARs of 40 CFR 63.685(i)(2) and 40 CFR 63.693(f)(1)(i).
- SC IV.2 - Added the UAR of 40 CFR 63.685(i)(1).
- SC IV.3 - Added the UAR of 40 CFR 63.693(f)(1)(i).
- SC IV.4 - Added the UAR of 40 CFR 63.693(f)(1)(i).
- SC IV.5 - Added the UAR of 40 CFR 63.685(i)(1).
- SC IV.7 - Added the UAR of 40 CFR 63.685(i)(1).
- SC V.1 - Added the UAR of 40 CFR 63.694(l).
- SC V.2 - Added the UAR of 40 CFR 63.685(i)(1).
- SC V.3 - Added to the "Test Method Reference" column, the VOC capture test method of 40 CFR 52.741, Appendix B, Procedure T.
- SC VI.1 - Added the UARs of 40 CFR 63.693(f)(3) and 40 CFR 63.695(e).
- SC VI.2 - Added the UARs of 40 CFR 63.695(e), 40 CFR 63.696(g), and 40 CFR 63.696(h).
- SC VI.4 - Deleted the UAR of 40 CFR Part 63, Subparts A and DD as not applicable.
- SC VI.14 - Added a special condition that the permittee may only increase the frequency of visible emission observations required in SC VI.13 and that a log of all visible emission observations shall be kept in a satisfactory manner. Renumbered special conditions below SC VI.14.
- SC VI.22 - Added for excursions that the pressure drop shall be based on a 5-minute block average for the baghouse, a minimum combustion temperature shall be based on a 5-minute block average for the RTO, or a departure from the indicator range specified for the air flow through the FGEAST shall be based on a daily block average.

FGWEST:

- SC I.1 - Corrected the "Monitoring/Testing Method" column to point to SCs V.1, VI.6, and VI.8.
- SC I.2 - Corrected the "Monitoring/Testing Method" column to point to SCs V.1, VI.6, VI.7 and VI.8.
- SC I.3 - Corrected the "Monitoring/Testing Method" column to point to SCs V.1 and VI.6.
- SC I.5 - Corrected the "Monitoring/Testing Method" column to point to SCs V.1 and VI.6.
- SC I.6 - Corrected the "Monitoring/Testing Method" column to point to SCs V.1 and VI.6.
- SC I.7 - Corrected the "Monitoring/Testing Method" column to point to SCs V.1 and VI.6.
- SC I.8 - Corrected the "Monitoring/Testing Method" column to point to SCs V.1 and VI.6.
- SC I.9 - Corrected the "Monitoring/Testing Method" column to point to SCs V.1 and VI.6.
- SC I.10 - Corrected the "Monitoring/Testing Method" column to point to SCs V.3, V.4, VI.1, VI.2, VI.4, VI.5.
- SC I.11 - Corrected the "Monitoring/Testing Method" column to point to SCs V.3, V.4, VI.1, VI.2, VI.4, VI.5.
- SC I.12 - Corrected the "Monitoring/Testing Method" column to point to SCs V.3, V.4, VI.1, VI.2, VI.4, VI.5.
- SC II.4 - Added the UAR of 40 CFR 63.683(b)(1)(iii).
- SC III.5 - Added the UAR of 40 CFR 61.342.
- SC VI.9 - Added the UAR of 40 CFR 63.696(a).
- SC VI.10 - Added the UAR of 40 CFR 63.696(a).
- SC VI.11 - Added the UAR of 40 CFR 61.342.
- SC VI.13 - Added a special condition that the permittee may only increase the frequency of visible emission observations required in SC VI.12 and that a log of all visible emission observations shall be kept in a satisfactory manner. Renumbered special conditions below SC VI.13.

FGLIQWASTETKS:

- SC II.1 - Added the UAR of 40 CFR 63.683(b)(1)(iii).
- SC II.2 - Added the UAR of 40 CFR 61.342.

SC VI.5 - Added the UAR of 40 CFR 63.696(a).
SC VI.6 - Added the UAR of 40 CFR 63.696(a).
SC VI.7 - Added the UAR of 40 CFR 61.342.
SC VI.8 - Corrected the UAR to 40 CFR 60.115b(c).
SC VI.9 - Corrected the UAR to 40 CFR 60.116b(b).

FGTMTFACILITY:

SC III.2 - Deleted the SSM plan requirement.
SC IV.1 - Added the UARs of 40 CFR 63.683, 40 CFR 63.685, 40 CFR 63.688, and 40 CFR 63.693.
SC IV.2 - Added the UARs of 40 CFR 61.342, 40 CFR 61.343, and 40 CFR 61.349.
SC V.1 - Added the UAR of 40 CFR 63.694(b).
SC V.2 - Added the UAR of 40 CFR 61.355(b)(3).
SC VI.4 - Added the UAR of 40 CFR 63.695.
SC VI.5 - Added the UAR of 40 CFR 63.696.
SC VI.6 - Added the UAR of 40 CFR 61.354.
SC VI.7 - Added the UAR of 40 CFR 61.356.
SC VII.4 - Added the UARs of 40 CFR 61.357 and 40 CFR 63.697.

FGMACTDD:

SC V.4 - Added the UAR of 40 CFR 63.697(b)(1) which is the specific citation to submit a Notification of Performance Test per MACT DD.

State Registration Number
M4782

RENEWABLE OPERATING PERMIT
JANUARY 9, 2024 - STAFF REPORT ADDENDUM

ROP Number
MI-ROP-M4782-2024

Purpose

A Staff Report dated September 11, 2023, was developed to set forth the applicable requirements and factual basis for the draft Renewable Operating Permit (ROP) terms and conditions as required by Rule 214(1) of the administrative rules promulgated under Act 451. The purpose of this Staff Report Addendum is to summarize any significant comments received on the draft ROP during the 45-day EPA comment period as described in Rule 214(6). In addition, this addendum describes any changes to the proposed ROP resulting from these pertinent comments.

General Information

Responsible Official:	Kerry Durnen, P.E. Vice President & General Manager 734-699-6265
AQD Contact – District Inspector:	Jonathan Lamb Senior Environmental Quality Analyst 313-348-2527
AQD Contact – ROP Writer:	Julie L. Brunner, P.E. ROP Central Unit Supervisor 517-275-0415

Summary of Pertinent Comments

One comment was received during the 45-day EPA comment period. EPA recommended that General Condition 19 be updated to reflect that annual compliance certifications be submitted electronically through the EPA’s Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI).

Changes to the November 20, 2023 Proposed ROP

General Condition 19 was updated for electronic submissions to the EPA as follows:

19. A Responsible Official shall certify to the appropriate AQD District Office and to the USEPA that the stationary source is and has been in compliance with all terms and conditions contained in the ROP except for deviations that have been or are being reported to the appropriate AQD District Office pursuant to Rule 213(3)(c). This certification shall include all the information specified in Rule 213(4)(c)(i) through (v) and shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. The annual compliance certification (pursuant to Rule 213(4)(c)) shall be submitted to the USEPA through the USEPA’s Central Data Exchange (CDX) using the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through CDX (<https://cdx.epa.gov/>), unless it contains confidential business information then use the following address: USEPA, Air Compliance Data - Michigan, Air and Radiation Division, 77 West Jackson Boulevard, Chicago, Illinois 60604-3507. **(R 336.1213(4)(c))**