DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION
ACTIVITY REPORT: On-site Inspection

M478259075

FACILITY: US ECOLOGY MICHIGAN		**SRN / ID:** M4782
LOCATION: 49350 N. I 94 SERVICE DR, BELLEVILLE		**DISTRICT:** Detroit
CITY: BELLEVILLE		**COUNTY:** WAYNE
CONTACT: Sylwia Scott , Environmental Manager		**ACTIVITY DATE:** 06/11/2021
STAFF: C. Nazaret Sandoval	**COMPLIANCE STATUS:** Compliance	**SOURCE CLASS:** MAJOR
SUBJECT: FY 2021 Scheduled Inspection		
RESOLVED COMPLAINTS:		

SRN: M4782
SOURCE NAME: US Ecology
FACILITY ADDRESS: 49350 North I 94 Service Drive, Belleville, Michigan
INSPECTOR: Nazaret Sandoval, AQD – Detroit District Office
MAIN CONTACT: Sylwia Scott, US Ecology at Belleville

The purpose of the inspection was to evaluate the facility's compliance with respect to the requirements of the federal Clean Air Act; Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Act 451), and the conditions of Renewable Operating Permit (ROP) number MI-ROP-M4782-2010a issued on September 1, 2010 and revised on August 27, 2013.

The ROP includes three separate sections, as follows: Section 1 regulates the Michigan Disposal Waste Treatment Plant (MDWTP); Section 2 regulates Wayne Energy Recovery (WER); and Section 3 regulates Wayne Disposal Inc. (WDI).

On December 26, 2014, the Air Quality Division (AQD) received a timely submitted ROP renewal application from US Ecology. AQD issued an administrative complete application letter dated January 26, 2015, granting the application shield to US Ecology, which allows the ROP not to expire until the renewal permit has been issued or denied.

During this inspection it was confirmed that the regulated equipment and processes currently listed in Sections 2 and 3 of the ROP are permanently inoperable. This is a result of the cessation in operations occurred at WDI in December 2017, which also affected WER operations. Consequently, Section 2 and most of Section 3 could be removed from the ROP. At the time of completion of this inspection report the changes have not yet been incorporated into the ROP; therefore, Sections 2 and 3 will be included in the discussions throughout this report.

According to the records this facility is a Title V source of NOx, HAPs and CO, and a Synthetic Minor for VOCs. In addition to the requirements of Title V of the Clean Air Act, there are other standards applicable to the operations identified in each section of the ROP.

This report summarizes the evaluation of compliance with the terms and conditions of MI-ROP-M4782-2010a based on the on-site observations, the review of facility records and the analysis of semiannual reports submitted by the facility throughout the year 2020.

1. FACILITY DESCRIPTION

The facility stretches out 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.

Here is a synopsis of the unit operations regulated under MI-ROP-M4782-2010a.

Michigan Disposal Waste Treatment Plant (MDWTP) – ROP SECTION 1
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 off-site 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 operates five days per week, 24 hours per day. The facility processes bulk liquid waste, bulk solid waste, and containerized waste. The waste is processed in two separate buildings identified as East Bay and West Bay. The buildings are equipped to handle different waste materials, consisting of waste and reagent storage areas, liquid waste tanks and air pollution control devices.
This section of the ROP will be fully evaluated under part 3.0 of this report.

Wayne Energy Recovery (WER) - ROP SECTION 2
This facility ceased operations on December 28, 2017. When WER was in operation, the powerhouse included four landfill gas-fired spark ignition reciprocating internal combustion engines (RICE) identified as Engines 2,3,4, and 5, used to generate electricity for the power grid. Typically, two or three of the engines operated 24 hours per day seven days per week whenever possible. One of the four engines (Engine 3) was restricted to be utilized as an emergency “only” engine.
ROP Section 2 (WER) will be evaluated in part 4.0 of this report.

Wayne Disposal Inc. (WDI) - ROP SECTION 3
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 (MSW) and hazardous waste were accepted for disposal at the facility. WDI has been regulated under the Federal Plan Requirements for MSW Landfills at 40 CFR Part 62, Subpart GGG (Landfill Federal Plan) and the US EPA is the delegated authority for the implementation and compliance determination of the requirements cited in that Subpart.
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 conforming Site 2 (I, IV, V, IX, X and XI) ceased accepting municipal solid waste at different times within the period from 1978 until 1993. MC X was the last cell closing. 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 General Site Plan drawing identifies the location of each MC in Site 2.

An active gas collection control system (GCCS) was installed at each MC in Site 2 to control the residual landfill gas production from the closed MSW landfills. The gas collected from each cell was conveyed to a gas recovery plant with four reciprocant engines for combustion (See WER section).
The active GCCS was capped after US EPA's approval 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.
ROP Sections 3 (WDI) will be evaluated in part 5.0 of this report.

2. INSPECTION NARRATIVE

The inspection conducted on 6/11/2021 included the evaluation of the permit conditions, operational parameters, preventive maintenance documentation, and the evaluation of the monitoring/recordkeeping requirements cited on the ROP.

The contact information for the facility personnel at US Ecology, Belleville remains the same as it was cited in the previous inspection report in August 2019. Stephanie Crocker is the Compliance Coordinator; Jason Campbell is the MDWTP Supervisor, Corey Grider is the Operation Manager for MDWTP and WDI; Cedric Gibson is a Project Manager. Sylwia Scott is the Environment Manager at the facility.

Facility records were requested via email before the site visit. US Ecology provided the records on the same date they were requested. Other records were retrieved from the semi-annual reports received by AQD. AQD requested additional information and clarification during the following two weeks of the inspection date. All the collected records were evaluated and are part of this report.

The facility tour started at about 10:30 AM at the MDWTP, East & West Treatment buildings, followed by a drive around the landfill (WDI), and ended with the inspection of the power engine house at WER. Ms. Scott led the inspection and Mr. Campbell joined us during the walk-through at the East & West Treatment buildings. Mr. Campbell answered the operational questions related to the MDWTP. Details about my observations at MDWTP and WER are given in part 3.0 and part 4.0 of this report, respectively. The observations at WDI are summarized in the next paragraph.

During this inspection I asked Ms. Scott to drive me around the landfill area (Site 2) to observe the construction work that has been completed in Master Cell VI and the location of the passive vents. The attached general site plan shows the location of the landfill and identifies each one of the MCs. It also shows the sub-cell boundaries and the hazardous waste boundary. MC VI is the current active hazardous waste area. Ms. Scott started the drive east of MDWTP using the outside circuit road that runs along the boundaries of the Master Cells (MCs). We completed the whole circuit driving around the perimeter which ended at the MDWTP. As we drove around, Ms. Scott identified each cell and pointed out to me the ones with passive vents and passive flares. MC XI, MC X and MC IX, located at the most eastern side of the property, are closed cells with passive vent. The north boundary of MC IX is by the property limit with the Willow Run Airport. MCs VII, V, and IV are located at the north side area and share boundary with the Willow Run Airport. MC VI has been built in phases on top of existing closed cells. We stopped at MC VI-G3 which was just

completed for active hazardous waste disposal. MC VI-F1 and F2 will be constructed next year. Further details about WDI are given in part 5.0 of this report.

At the conclusion of the site visit we convened to the meeting room and Ms. Scott indicated that the rest of the records I have requested in the morning of 6/11/2021 will be sent to me via email. I concluded the inspection and left the facility at about 12:30 PM.

3. ROP SECTION 1 - Michigan Disposal Waste Treatment Plant (MDWTP)

3.1 – Emission Units Description and Field Observations

The following is a description of the process operations and the emission units currently listed on ROP Section 1 (MDWTP).

FG EAST - The east side waste treatment processes consist of the following equipment/emission units and control equipment:
A 40,000-gallon sludge tank identified in the ROP as EUSLUDGETANK12 located between the west and east treatment bays.

There are four waste storage and treatment tanks E, F, G, and H grouped under emission unit EUSTORAGETANK1 located inside the treatment building. The tanks were installed during the period from 7/1/91 to 6/1/97.

The pug mill (EUPUGMILL1), originally installed at FG EAST to blend reagents with the waste and transport the mixture into the main treatment tanks, was removed in August 2013. Currently, all mixing occurs in the treatment tanks using excavator buckets.
Pollution control at FG EAST includes the following equipment sequence: 1) a baghouse dust collector; 2) a regenerative thermal oxidizer (RTO); 3) a sodium hydroxide packed bed wet scrubber.

The operations occurring at FG EAST can be described as follows:
Waste received via trucks is transferred to the treatment tanks by one of three methods:
• Bulk liquid non-hazardous waste can be off-loaded into EUSLUDGETANK12. The waste contained in the tank is then transferred to one of the treatment tanks. For several years, the facility has not stored waste in the EUSLUDGETANK12. Currently, the tank holds city water used in the treatment process.
• Bulk solid waste is brought by truck into the chemical fixation/stabilization process building and it is dumped into one of the treatment tanks.
• Containerized waste (drums) is off-loaded to the waste storage/staging area. After waste is sampled and tested for acceptance/compatibility, the waste is transferred to one of the treatment tanks.

Once the waste has been transferred to one of the treatment tanks, it is stabilized by adding varying amounts of oxidant such as sodium hypochlorite and dolomitic kiln dust for chemical reduction of metals. Ferrous sulfate is also added to the treatment tanks.
The chemical reactions perform several functions: a) pH adjustment for acidic/basic materials, b) exothermic heat to vaporize the more volatile VOC (which then are controlled by the thermal oxidizer in the east side treatment bay), c) locking the remaining hazardous constituents into the waste mass to ensure they don't leach out in the landfill, and d) the physical solidification of the material so that it meets land disposal criteria. After the reactions, the material is sampled. If the confirmatory sampling demonstrates that the material is properly treated, and the waste meets land disposal restriction criteria (LDRs),

the excavator removes the material from the tanks into a truck, which takes the material to a transfer station. Finally, the waste is deposited by dedicated equipment to the active cell of the landfill.

During the plant tour I observed the FG EAST baghouse and asked the operator about the operation of the rotary valves. He indicated that the rotary valves have a controlled operation and are very functional. The baghouse fines disposal system utilizes wheeled bins instead of bags. No housekeeping issues were observed. The operator indicated that due to the large capacity bins collecting the fines, they do not need to remove them too often, minimizing the exposure to potential dust emissions.

At the area of FG EAST, I observed a decontamination procedure where water from EUSLUDGETANK12 was used to wash the wheels of a truck. The wastewater from the wheels-wash was collected and pumped into the treatment tank system in FG East. Ms. Scott said that is a common practice to assure that the trucks leaving the plant do not track out waste.

FG WEST - The operations occurring at FG WEST are similar to the ones described for FG EAST, but waste subject to 40 CFR Part 63 Subpart DD is not treated in this building. In other words, only wastes with a minimal VOC content (<500 ppm on a monthly average basis, maximum of 0.5% by weight daily average) are permitted to be treated at this side of the plant. The west treatment bay contains a 40,000-gallon sludge tank (EUSLUDGETANK11) located between the west and east treatment bays. There are four waste-storage and treatment tanks designated as A, B, C, and D grouped under the emission unit EUSTORAGETANK2. The pug mill (EUPUGMILL2) that used to be part of the west treatment building was removed from the plant during the first quarter of 2015. The equipment at FG WEST is controlled by a baghouse dust collector.
During the inspection, I observed one truck entering the west treatment building to offload some material to be treated in the treatment tanks. As required, only one of the doors opened to allow the truck entrance.

FGLIQWASTETKS - Four 20,000-gallon tanks (tanks 16, 17, 18 and 19) permitted to store hazardous liquid waste with Volatile Organic Compounds (VOC). The tanks have pressure vacuum vents attached to two shared carbon adsorption canisters in series that control the emissions.
These steel cylindrical vertical tanks with cone bottoms are housed in the open area located to the east of FG EAST toward the north corner. For several years the liquid waste stored in these tanks has generally consisted of trench water or landfill leachate with no detected concentrations of VOC.

ADDITIONAL STORAGE TANKS (Rule 201 Exempt)
There are two 20,000-gallon fiberglass reinforced plastic, vertical tanks with cone botttoms (tanks 25 and 27) at the front-end of FGLIQWASTETKS. These tanks have atmospheric vents. According to the labels on the tanks, one is used for the storage of 50 % sodium hydroxide and the other one holds scrubber brine waste. In the same area, but west of tanks 16 to 19, there are two 18,000-gallon fiberglass vertical tanks (tanks 21 and 23). These tanks vent to the atmoshphere and are primarily used for the storage of sodium hydroxide (a.k.a. caustic)

FGSILOS – Each building (east and west) has three identical silos with capacities of 15,148 gallons. Silos 1 through 3 serve the west side building, and silos 4 through 6 serve the east side. Trucks offloading hook up to the silos and have a blower on the truck that is used to

blow the kiln dust into the silos. The silos store kiln dust for use in stabilizing the wastes. At the time of inspection, the silos were not being filled. Therefore, visible emission observations could not be made. However, it looks like this is an air-tight enclosed system and minimal dust emissions are expected while loading the silos.

FGTMTFACILITY - For the purpose of the ROP all the emission units that are part of the waste treatment facility (MDWTP) are grouped under a flexible group identified as FGTMTFACILITY. This flexible group includes all equipment in the east and west process buildings, the reagent silos, the liquid waste storage tanks, and the North, East, and Southeast container storage areas.

According to the ROP, except for the waste-storage treatment tanks A to H (installed between 7/1/91 and 6/1/97) 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:
• East side treatment process: Baghouse dust collector, RTO, and wet scrubber in series.
• West side treatment process: Baghouse dust collector.
• Reagent silos: Each treatment reagent silo has its own baghouse.
• Liquid waste storage tanks: The tanks are controlled by two shared carbon adsorption canisters in series.

Please note that the EU table in the Section 1 of the ROP lists a consolidation room as part of the emission units in FGTMTFACILITY. Apparently, under certain conditions, bulking and/or waste consolidation in the North Container Storage Area is permitted by the MDWTP Hazardous Waste License. This type of operation could generate air emissions. However, it is unclear if this type of operations would require a PTI or if it qualifies for a permit exemption. This needs to be revisited by US Ecology during the ROP renewal.

Other equipment and dismantled units:
FGTDU – In late 2009, the former EQ began the installation of a thermal desorption unit (TDU) process for recovering oils from refinery wastes, which were primarily solid in form. The byproducts of the oil recovery were VOCs, wastewater and solids. The facility began trial operation in 2010, and it was extensively modified soon after. EQ decided to cease the TDU operations in October 2011. The equipment was dismantled in July 2012. The area is currently use for storage.

FGCOLDCLEANERS - Only one cold cleaner unit remains on site in the vehicle maintenance building. The cold cleaner is supplied by VESCO and employs mineral spirits. We did not go to the location of the cold cleaner during the site inspection of 6/11/2021.

FGRULE290 (EUDRUMSTORAGE) – MDWTP has various areas for the storage of waste: the North Container Storage Area (NCSA); the East Container Storage Area (ECSA); and the Southeast Container Storage Area (SECSA). In the ROP, the North, the East and the Southeast Container Storage Area are all grouped under one emission unit EUDRUMSTORAGE. The NCSA is enclosed by a roof, surrounding walls and both bay and man door(s) on each end. The ECSA is located directly east of the East Treatment Building and immediately west of the east retaining wall. The SECSA is located approximately 250 feet southeast of the treatment plant at the area of the dismantled TDU.

In addition, the East and West Treatment Buildings may be used for temporary storage of containers while operating. The waste drums and dry reagents inside the treatment bays are stored temporarily there in preparation for treatment. This area is equipped with a

ventilation system which is ducted to the respective east and west side air pollution controls.

The Hazardous Waste License restricts the storage capacity in each one of the above cited areas, as follows:
At no time shall the total number of containers in storage in the NCSA, the ECSA, and within the bays of the treatment building exceed a maximum of 82,500 gallons or 1500, 55-gallon container equivalents.
In the SECSA, historical permit limits per the hazardous waste license have restricted the capacity to 181,800 gallons of liquid hazardous waste.
The West and East Treatment Bay could temporarily store 11,000 gallons or 200, 55-gallon container equivalents or 500 cubic yards of treated waste. Containers of untreated waste may be stored in this area for no more than one eight-hour shift.

In terms of actual design capacity, according to the information provided by Ms. Scott, the combined NCSA and ECSA have a design capacity of 282,040 gallons of liquid and/or solid waste.
The design capacity within the existing limits of the SECSA is 896,822 gallons of solid waste in the asphalt area, and 192,720 gallons of liquid waste on the concrete liquid storage pad.

All container storage areas may store the following waste: untreated waste not meeting LDRs, consolidated/bulked waste, treated waste awaiting analytical results and treated or untreated waste meeting LDRs.

As part of this inspection, I asked Ms. Scott to provide information to demonstrate compliance with Rule 290 for EUDRUMSTORAGE. Ms. Scott handed out a one-page written statement that seems to have been prepared by a consultant during a past ROP application/renewal process. This issue was a matter of discussion in the weeks following the inspection because it was unclear to AQD if all the container storage areas qualified for the Rule 290 exemption. The conclusion was that US Ecology will review this flexible group during the ROP renewal.

3.2 – Regulatory Framework
The operations at the MDWTP are subject to the following National Emissions Standards for Hazardous Air Pollutants (NESHAP) regulations: 40 CFR Part 63 Subpart DD - Offsite Waste and Recovery Operations; 40 CFR Part 61 Subpart FF- Benzene Waste Operations; 40 CFR Part 61 Subpart M – Asbestos; and 40 CFR Part 63 Subpart DDDDD - Industrial, Commercial and Institutional Boilers and Process Heaters (Boiler MACT). Except for the Boiler MACT, all the other applicable requirements for the listed NESHAPs are incorporated into the current ROP. If applicable, the equipment that appears to be subject to the Boiler MACT will be incorporated into the ROP during the renewal process. The treatment bays (FG EAST and FG WEST) are subject to Compliance Assurance Monitoring (CAM): FG EAST, for particulate matter and VOC, and FG WEST for particulate matter only.

3.3 – ROP Section 1 – Compliance Evaluation
The following is an evaluation of the facility's compliance with the special conditions (SC) cited on MI-ROP-M4782-2010a for the emission units (EU) and flexible groups (FG) listed under Section 1. For compliance evaluation I have examined the records for year 2020 and the pollutant emission rates from the more recent stack tests conducted at the facility at the time of the inspection. Other records evaluated include samples of operational daily

records, preventive maintenance checklists and copies of recent instrument calibration certificates.
For simplicity, some of the special conditions listed in ROP – Part D, items I to IX, have been re-stated. The compliance status has been identified at the beginning of each subpart (I to IX). However, for those cases in which a specific condition within a subpart requires further details to determine compliance, the individual condition is addressed separately.
PTI 107-14, issued on 7/31/2014, has not yet been incorporated into the current ROP. This permit authorized the modification/clarification of the language cited on the ROP permit condition SC VI.10 for FG WEST. That's the only condition that shows a different language in the active ROP.

FG EAST

I. EMISSION LIMIT(S) – In Compliance

The following compares the ROP emission limits specified for FG EAST with the actual records from the facility operations in the evaluated period. The most recent stack test results are also presented in the table.

Pollutant	Limit (in lb/hr or as noted)	Time Period/Method/ Operating Scenario	Records (in lb/hr or as noted)	Compliance
1. VOC	22.85	Stack testing every five years. Refer to V.1 The most recent test was conducted on 7/12/2017	0.30 RTO Avg. Eff. 98.3%	Yes
2. VOC	47.52 tpy	12-month rolling time period* Refer to VI.9	0.88 tpy Max. reported end of March 2020	Yes
3. Methylene chloride	14.92	Stack testing every five years per V.1 The most recent test was conducted on 7/12/2017	0.02	Yes
4. Benzene	0.71		0.01	Yes
5. 1,1,2,2-Tetrachloroethane	0.16		0.02	Yes
6. Carbon tetrachloride	0.28		0.03	Yes
7. Chloroform	3.02		0.02	Yes
8. Trichloroethene	4.52		0.02	Yes
9. Tetrachloroethene	12.7		0.02	Yes
10. Hydrogen chloride	28.4	Stack testing every five years per V.1 (last test 7/12/2017)	0.55	Yes
11. PM (Instantaneous emissions)	0.028 lb per 1,000 lbs of exhaust air	Monthly records Per Appendix 7-S1 B	see comment on section VI.9	Yes
12. PM-10 (Cumulative emissions)	1.9	Monthly records Per Appendix 7-S1 B	see comment on section VI. 9	Yes

Pollutant	Limit (in lb/hr or as noted)	Time Period/Method/ Operating Scenario	Records (in lb/hr or as noted)	Compliance
13. PM-10 (Cumulative emissions)	4.0 tpy	12-month rolling time period*, per Appendix 7-S1 B	0.8309 tpy see comment on section VI.9	Yes

(*) shall be based upon a 12-month rolling time, as determined at the end of each calendar month. Please see AQD semiannual reports evaluation for year 2020.

II. MATERIAL LIMIT(S) – In Compliance

Material	Limit	Time Period/ Operating Scenario	Monitoring /Testing Method	Compliance
1. VOC in waste	Maximum of 2% by weight for hazardous waste	Daily average for waste accepted for treatment	Records are maintained following NESHAP Subpart DD procedures	According to the records, the facility is in compliance with the cited limits. (For details refer to VI.7 below)
2. VOC in waste	Maximum of 20% by weight for nonhazardous waste			

III. PROCESS/OPERATIONAL RESTRICTION(S) – In Compliance

The operational parameters cited under SCs III.1, 4, 5, 8 and 9 are continuously monitored and recorded during treatment operations occurring at the east treatment building. During the site tour we stopped at the control room located by the east building, and I took note of the prevealing process / operational conditions as displayed on the computerized process flow diagram. The recorded values, cited on the following paragraphs for SCs III.1, 4, 5, 8 and 9, correspond to reading taken on 6/11/2021 at 10:29 AM (time showed on my cellphone). All the values are 5-min averages. The records collected during the plant tour and the review of the semiannual reports for year 2020, suggest that the facility is operating in substantial compliance with the operational restrictions required by the permit conditions, as specified below:

III. 1 - During normal operation the air flow through FG EAST shall be maintained within 19,500 cfm and 26,400 cfm. Refer to ROP, SC III.1, for the definition of “normal operation”. Air flow records for year 2020 appeared to be within the permit limits with no deviations reported on the semiannual reports. At the time of the screen reading the RTO air flow showed by FT- 201A was 20,707 cfm.

III. 2 and 3 - The permittee shall not operate FG EAST unless the baghouse, thermal oxidizer and caustic scrubber are installed and operated properly. The waste treatment building shall be maintained at negative static pressure during normal operation. All control devices are used during normal operation.

All control devices were in operation at the time of the facility tour. Compliance with this condition was confirmed by recording the control devices operational variables (i.e. diff. pressure, temperatures, pH, etc.). In addition, routine preventive maintenance is performed every 3-months and the scope of the work performed varies upon the frequency.
During the walkthrough it was observed that the overhead doors appeared to be in good condition and were functioning properly. In a previous inspection, in 2018, the overhead door and the roof of the building were replaced during the building maintenance conducted in November 2018. Negative static pressures are maintained at the east waste treatment building. This condition is tested annually by determination of the air flow movement and direction (Procedure T). For year 2020, the verification was conducted on 8/21/2020. A copy of the field test records was provided via email on 9/4/2020. The results demonstrated an inward airflow direction at each natural draft opening within the east treatment building.

III. 4 - The permittee shall not operate FG EAST, unless the treatment building east baghouse pressure drop is maintained between 1.5 and 8 inches of water column.
At the time of the screen reading the value shown by PDT-101 was 3.5 inches of water. Pressure drops under 1.5 inches of water column are inherent to the installation of new filter bags. The semiannual reports did not report deviations.

III. 5 - The permittee shall not operate FG EAST, unless the regenerative thermal oxidizer (RTO) maintains a minimum temperature of 1,500°F.
At the time of the reading, the RTO combustion chamber 5-min average temperature was 1,569°F. The semiannual reports for year 2020 reported no deviation from the minimum temperature and no exceedance in emissions. Waste is not processed in the treatment building if the RTO temperature is below 1,500 °F. For details about RTO downtime during the 3-month, 6-month and annual preventive routine maintenance refer to the AQD review / comments of the MACT (Part 63) - Subpart DD RTO Semiannual Routine Maintenance.

III. 6 - The permittee shall maintain a VOC capture efficiency of 100 percent in the FG EAST exhaust system, as determined in accordance with SC V.2 (a Procedure T test). Refer to SC V.2 below for demonstration of compliance.

III. 7 - The permittee shall not process waste with a VOC concentration greater than 500 ppm in FG EAST unless the destruction efficiency of the RTO is a minimum of 95%. The most recent testing of the RTO to determine the VOC destruction efficiency was on July 12, 2017. For AQD test observations details refer to CA M478240782 in AQD files. RTO inlet and exhaust streams were monitored simultaneously for three (3) one-hour test periods to determine an average destruction efficiency. A report with the testing results, dated 8/29/2017, was received by AQD Detroit office on 9/11/2017. The average VOC destruction efficiency was reported to be 98.3 %. Please note that maintaining a minimum of 95 % destruction efficiency in the RTO is only required if the VOC concentration in the waste is above 500 ppm. During the cited stack test, in July 2017, they had difficulties to get a high volume of waste with elevated concentrations of VOC to be able to maintain the minimum 95% efficiency.

III. 8 - The permittee shall not operate FG EAST unless the caustic scrubber maintains a minimum pH of 7.3.
At the time of the reading, the pH showed by AIT-207A was 8.72. During year 2020 the facility operated at or above the minimum pH. No deviations were reported.

III. 9 - The permittee shall not operate FG EAST unless the liquid flow rate of the caustic scrubber is maintained between 225 and 350 gallons per minute.

At the time of the reading, the flow showed by FIT-208 was 282 gallons per minute. During year 2020 the facility operated within the required range with no reported deviations.

III. 10 - The permittee shall not have more than one waste treatment process building overhead door open at a time.
This condition was verified during the facility tour.

Note: To prevent deviations from the required operational parameters cited in SCs III.1, 4, 5, 8 and 9, US Ecology installed a notification system (i.e. alarm) that alerts the plant personnel when the system is approaching a deviation from the ROP required operational conditions.

IV. DESIGN/EQUIPMENT PARAMETER(S) – In Compliance
IV. 1 to IV. 6 - The permittee shall install, calibrate, maintain and operate in a satisfactory manner the monitoring devices to monitor: the air flow from FG EAST; the pressure-drop of the treatment building baghouse; the combustion chamber temperature of the thermal oxidizer (RTO); the pH of the caustic scrubber and the liquid flow rate of the caustic scrubber. The parameters shall be monitored in a continuous basis and record five-minute block averages of the monitored parameters.

Here is the evaluation of compliance for the above mentioned SCs:
The parameters are monitored and recorded in accordance with the permit conditions. As indicated earlier, some of the operational parameters were verified by reading the computer screen in the control room during the facility tour. The type of monitoring devices and the frequency of calibration are both cited in the following paragraphs. The most recent device calibration was completed on 6/12/2020. Copies of the Certificate of Calibrations were collected during this inspection and are attached to this report.

IV. 1 – As indicated in previous reports, the airflow meter at the east treatment building was changed after some faulty readings experienced in March 2016. In addition to the existing Pilot Tube flow meter fitted with an ABB 2600T pressure transmitter, the facility installed a Multipoint Air Flow Meter (Ebtron) in April 2016. This device is calibrated annually.

IV. 2 - The east baghouse has an ABB series pressure transmitter calibrated annually.

IV. 3 - The RTO has type k thermocouples that are replaced annually.

IV. 4 - The RTO shall be designed to maintain a minimum retention time of 0.4 seconds. The manufacturer guaranteed a minimum retention time of 0.4 seconds. In a past inspection AQD requested the manufacturer retention time calculations for the permit conditions. Sylwia Scott provided the calculations via email dated 8/3/2017. The results showed values ranging from 0.75 seconds to 0.98 seconds for temperatures varying from 1500 °F to 1800 °F at the permitted airflow ranges.

IV. 5 - The scrubber pH is monitored with a Bailey pH sensor calibrated annually.

IV. 6 - The scrubber liquid flow is measured by an ABB electro-magnetic flow meter. The procedure used to confirm that the scrubber pump is pumping out at a minimum of 225 gallons per minute is as follows: They drain the scrubber tank (of known volume) and measure the time it takes to refill the tank.

IV. 7 - The permittee shall install, maintain, and operate limit switches in all overhead doors, to restrict the maximum opening heights to 20 feet except as needed for vehicle or equipment ingress and egress.
East overhead doors incorporate limit switches to control opening height. They are maintained by lubrication on a quarterly basis, verifying the opening height and bottom seal. The overhead doors were replaced in 2018.

IV. 8 - Sludge feed and storage tank No. 12 (EUSLUDGETANK12) shall be vented into the FG EAST waste treatment process building.
This condition was verified by Ms. Scott during the tour of the facility.

V. TESTING/SAMPLING – In Compliance
Records shall be maintained on file for a period of 5 years
V. 1 - Verification of the destruction efficiency of the RTO and demonstration of compliance with the pollutant emission rates from FG EAST specified under SC I.1, and I.3 through I.10 shall be conducted by testing at owner's expense, in accordance with Department requirements at least once every five years, beginning in 2007.
As indicated earlier, the most recent stack test was conducted on July 12, 2017. The test consisted of monitoring, sampling and analysis to determine VOC emission rates and the destruction efficiency of the RTO. The emission rates for the following pollutants were also evaluated during the test: MeCl2, C6H6, 1,1,2,2-TCA, CCl4, CHCl3, TCE, PCE and HCl. The results showed compliance with the limits specified in SC I.1 and SC I.3 through SC I.10. The test results were included in the summary table, as part of SC I. For AQD test observation details, refer to activity report CA M478240782 in AQD files.

V. 2 - Verification of the VOC capture efficiency of the exhaust system shall be conducted by testing in accordance with Department requirements. The VOC capture efficiency of the exhaust system shall be determined in accordance with Procedure T, and by visual observation of the air movement and direction. Alternative testing procedures shall be approved by AQD District Supervisor. The verification tests shall be conducted at least once every year and shall notify the department prior to conducting the tests.
As required, the facility notified AQD via email on 8/13/2020 that they were tentatively planning Procedure T and negative static pressure testing at FG EAST and FG WEST for 8/21/2020, if weather permitted. The fieldwork for the East Building was conducted on 8/21/2020. EQ facility personnel verified the air flow direction within the East Building and summarized the results of the field verification activities. A copy of the field observations was provided via email on 9/4/2020. According to the report, the airflow direction observations demonstrate negative pressures by the inward airflow direction at each Natural Draft Opening (NDO) within the East Building. The results indicate that the East Building continues to meet the permanent total enclosure criteria of ROP No. MI-ROP-M4782-2010a, assuring 100% capture efficiency. This procedure is conducted annually.

VI. MONITORING/RECORDKEEPING – In Compliance
VI. 1 to VI. 4 – The following parameters from FG EAST are monitored on a continuous basis and five-minute block averages of the monitored parameters are recorded: air flow, baghouse pressure-drop, temperature of the RTO, pH and liquid flow rate at the caustic scrubber. Records are maintained on file for a period of 5 years. Excursions from the specified permit requirements are recorded and reported on the semiannual deviation reports submitted to AQD. For details refer to previous paragraphs under SCs III and review comments of the semiannual deviation reports filed at AQD facility files.

VI. 5 and VI. 6 - Written logs are maintained as part of the facility's preventive maintenance procedures and the malfunction abatement program for the air pollution controls system equipment, which consist of: the RTO, the baghouse, the scrubber and the air handling system. The written logs include the date, time and duration of the equipment downtime; the date and description of the maintenance performed on the equipment; and the date and description of repairs performed on the equipment.

A sample of a daily preventive maintenance record from operator's daily checklist showing the operational parameters monitored on 12/14/2020 was received via email on 6/11/2021. The recorded values were all within the operational restrictions required by the ROP conditions.

Samples of daily, weekly, monthly, quarterly, and annual logs with comments describing the type of adjustment and/or repairs are routinely submitted to AQD in the semiannual reports. For the past two years, except during periods of preventive maintenance, the facility has not reported downtime. No deviations have been reported either.
Besides a daily record, I requested a copy of the 3-months preventive maintenance (PM). A copy of the checklist dated 3/1/2021 indicated the following activities were conducted as part of the preventive maintenance: inspection of the pulse jet boots at the baghouse and the testing of the Ground Fault Circuit Interrupters (GFI) at the West Building and at the equipment platform.

VI. 7 and VI. 8 - The facility maintains the following records for FG EAST: a) Monthly volumes of each waste stream treated; b) daily records of VOC content in percent by weight present in each waste stream prior to treatment, based on generator information; c) Average daily VOC content (% by weight) of waste streams. d) monthly and 12-month rolling total VOC emissions according to the method outlined in Appendix 7-S1-A of the ROP.

The cited records are maintained pursuant the National Emission Standards for Hazardous Air Pollutants (NESHAP) from Off-Site Waste and Recovery Operations as specified in 40 CFR Part 63 Subparts A and DD. As such, they are labeled "DD VOHAP WASTE REPORTS" and are submitted to AQD as part of the VOC emissions semiannual reports. The reports identify the building where the waste is treated (east or west) and flag the waste as hazardous or not hazardous.

In addition, the facility prepares a monthly report summarizing the amount and the VOC content (in percent by weight) of waste treated and the total VOC input to monitor the cumulative VOC emissions for the preceding 12 months.

An analysis of the semiannual reports for year 2020 shows:
• monthly volumes of waste treated in FG EAST varied from 679,249 gallons recorded in October 2020 to a maximum of 1,431,226 gallons recorded in January
• waste treated at FG EAST, calculated as a 12-month rolling, is within 11 to 14 million gallons.
• daily records with percentage of VOCs in the waste treated varying from 0% to 2% for hazardous waste, and from 0% up to a maximum of 5.18 % for non-hazardous wastes
• VOC monthly emissions varied from 0.0046 tons in November to a maximum of 0.1157 tons in August
• 12-month rolling VOC emissions varied from 0.5963 tons at the end of December up to a maximum of 0.8839 tons recorded at the end of March

To estimate the cumulative VOC emission rates from FG EAST/ RTO exhaust stack, US Ecology uses a procedure similar to the one cited in the ROP Appendix 7-S1-A, but the determination of the VOC weight fraction in the waste stream follows a more comprehensive evaluation. The procedure includes the evaluation of the Michigan Toxic Air Constituents (TAC), HAPS, as well as volatile and semi-volatile constituents listed on ASTM 8260 and ASTM 8270. For details of the calculation methodology please refer to a document titled “VOC Concentration Determination” dated August 14, 2015, submitted by Sylwia Scott (US Ecology) and located in the facility file. According to the document, US Ecology uses a monitoring/reporting database that collects extensive information about the properties of waste to be treated. The data is incorporated into the calculation/ methodology to estimate the VOC concentration in the waste and the estimate of VOC emissions.
A 100% VOC capture efficiency and a 95 % control device efficiency is used for the calculations of the VOC emission rate. Please note that the stack test result in 7/12/2017 showed 98.3% RTO efficiency. The emission factor for VOC released from waste during treatment process and delivered to the RTO continues to be as it is indicated in appendix 7-S1-A, which establishes 60% evaporation rate by weight for calculation and compliance purposes. According to AQD records, this evaporation rate was approved when the RTO was first permitted, and appears to be based on the results documented in the “Air/Superfund National Technical Guidance, Study Series, Emission Factors for Superfund Remediation Technologies,” EPA-450/1-901-001, March 1991. US Ecology incorporates in their calculations the daily average for waste accepted for treatment in FG EAST, which is limited to a maximum of 2% by weight for hazardous waste and 20% by weight for non-hazardous waste.

VI. 9 - On a monthly basis, the facility maintains the following records for FG EAST: a) PM concentration in pounds per thousand pounds of exhaust gas according to the method outlined in Appendix 7-S1 B of the ROP; b) hourly PM-10 emission rate according to the method outlined in Appendix 7-S1 B of the ROP; c) monthly and 12-month rolling total PM-10 emissions according to the method outlined in Appendix 7-S1 B of the ROP.
To show compliance with the permit limit requirements for PM and PM10 (SC. I.11 and SC.I.12) the facility uses the worse-case scenarios proposed by the calculation method outlined in Appendix 7-S1 B of the ROP. When using the equation in Appendix 7-S1-B the resulting estimated emissions are constant values every year because the plug-in values are design data and not actual monitoring data, testing results and/or operational values. The only particulate matter emission rate estimated based on actual conditions is the PM-10 emissions in tons per year. For their annual emission inventory report on the Michigan Air Emission Report System (MAERS), the facility estimates PM-10 emissions in tons per year at FG EAST based on the tons of PM-10 per weight of waste treated, in combination with the amount of waste treated at FG EAST. The emission factor (EF) seems to be derived from a stack test conducted on September 26, 2007, at FG EAST, which resulted in an emission of 0.19 lbs./hour. For calendar year 2020, the PM-10 emissions in MAERS report were estimated to be 0.8309 tons per year, which is below the ROP emission limit of 4 tons per year.

VI. 10 – The VOC and PM and PM-10 emissions from FG EAST are calculated according to the methods outlined in Appendix 7-S1-A and B. Refer to VI. 7 and VI. 8 for VOC emissions and VI. 9 for particulate matter emissions.

VI. 11 and VI. 12 - The startup, shutdown and malfunction plan operating procedures are met. Upon detecting a deviation on the RTO combustion temperature or differential pressure, the facility ceases the treatment on FG EAST and restores operations to its

normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices.

The following procedures are still valid and apply to FG EAST and FG WEST. The information was provided in past inspections when AQD requested data about the operational procedures used by US Ecology to identify malfunctions, report deviations, generate checklist and maintenance logs, and start up or shut down activities.
The east and west side monitoring is done by a data logging program. The facility compares the information to the requirements of the ROP to determine if there was a deviation. The daily checklist is completed each morning prior to beginning waste processing. This is to ensure the equipment is functioning properly. If maintenance needs to be done, notes will be placed on the maintenance forms. Then, periodically throughout the day, an operator checks the function of the pollution control devices to make sure everything is running properly.
For FG_EAST they have a light outside the control room that turns on if the RTO is down which signals all processing to stop. Once the data is reviewed and it is determined that there has been a deviation, the maintenance logs are reviewed, and the deviation is discussed with the maintenance personnel that worked on the issue. They populate the RTO maintenance log with the deviation comments to have the information available in a convenient format. Throughout start up, shutdown and malfunction activities the parameter requirements may not meet the conditions of the ROP; however, waste is not processed until the ROP operational parameters are in place.

At the inspection of 6/11/2021 I said that I have noticed during my evaluations of the semiannual reports in 2019 and 2020 that the facility has not reported any deviations within the last two years. The operator indicated that with the notification system (WIN 911) and the alarm, the operators can act before the ROP parameters deviate from the set-points established by the permit.

VII. REPORTING – In Compliance
Deviations are reported pursuant to ROP Part A, General Conditions 21 and 22.
The reporting requirements cited below have been evaluated earlier in this report but are provided here as a summary. With the exception of SC VII .4, the following conditions are applicable to both, FG EAST and FG WEST.

VII. 1 - Semiannual reports of monitoring and deviations pursuant to General Condition 23 of Part A were received by AQD Detroit district office on 9/15/2020 for reporting period January 1 to June 30, 2020; and received on 3/18/2021 for reporting period July 1 to December 31, 2020. No deviations were reported.

VII. 2 - Annual certification of compliance pursuant to General Conditions 19 and 20 of ROP Part A. Reports were received by AQD Detroit district office on 3/18/2021 for calendar year 2020.

VII. 3 - The permittee submits, on a semi-annual basis, the monthly VOC reports in order to monitor the cumulative VOC emissions for the preceding 12 months. Reports were received on 9/15/2020 for reporting period January 1 to June 30, 2020, and on 3/18/2021 for reporting period July 1 to December 31, 2020.

VII. 4 - Results of stack tests have been submitted to the department in the format prescribed by the applicable reference test method and within the 60-days timeframe required by the ROP. The most recent stack test required under FG East was conducted on

July 12, 2017. The report with test results, dated 8/29/2017, was received by AQD Detroit on 9/11/2017.

VII. 5 - Each semiannual report of monitoring deviations includes summary information on the number, duration, and cause of excursions and/or exceedances and the corrective actions taken. If there were no excursions and/or exceedances in the reporting period, the report includes a statement that there were no excursions and/or exceedances. The semiannual reports of monitoring deviations indicated no deviations, excursions or exceedances for year 2020.

VII. 6 - Each semiannual report of monitoring deviations includes a summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, the report includes a statement that there were no periods of monitor downtime. During 2020 the facility did not report periods of downtime, except during periods of preventive maintenance. For details, refer to the AQD review comments of the 2020 semiannual reports which were summarized in the FCE report.

VIII. STACK/VENT RESTRICTION(S) – In Compliance
The design of the stack at FG EAST has not been modified since the last re-issuance of the ROP. According to the ROP, the maximum diameter for the exhaust stack shall be 54 inches in diameter and the maximum height above the ground shall be 75 feet. The system has been designed so that the exhaust gases from the stack discharge unobstructed vertically upwards to the ambient air. Visible emissions from the stack were not detected during the tour of the facilities.

IX. OTHER REQUIREMENTS – For compliance status refer to the individual items cited below.
IX. 1 - The facility complies with the applicable provisions of the National Emission Standards for Benzene Waste Operations as specified in 40 CFR Part 61 Subparts A and FF.
Compliance with the provisions of the above cited regulation is analyzed later in this report under a separate section identified as “Benzene Waste NESHAP requirements”.

IX. 2 - The emissions of asbestos, the filter fabric, the operation of the fabric filter baghouse dust collectors and the process and disposal of all asbestos containing waste shall comply with the specifications found in the NESHAP (National Emission Standards for Hazardous Air Pollutants) for Asbestos in 40 CFR Part 61 Subpart M. – Refer to EUASBESTOS in this report.

IX. 3 –The permittee complies with the applicable provisions of the National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations as specified in 40 CFR Part 63 Subparts A and DD. Refer to section VI.7 and VI.8.

IX. 4 - The permittee implements the “Preventive Maintenance and Malfunction Abatement Program, Air Pollution Control Systems.” Refer to comments cited under section VI. 5 and VI. 6 and VI. 11 and VI.12.

IX. 5 and IX. 6 - The permittee shall notify the AQD for the need to modify the Compliance Assurance Monitoring (CAM) plan if the approved monitoring is found to be inadequate and shall submit a proposed modification to the plan if appropriate. The permittee shall comply with all requirements of 40 CFR Part 64 (CAM)

No changes have been made at the facility; therefore, the CAM requirements remain the same.

FG WEST

I. EMISSION LIMIT(S) – In Compliance

I. 1 to I.9 – With the exception of HCl and VOC, the type of pollutants and the corresponding emission rates limits listed on the ROP for FG WEST are the same as those cited for FG EAST, including the time periods and operating scenarios. FG WEST does not contain an emission limit for HCl and the 12-month rolling emission of VOC is limited to 40.2 tpy. Stack testing is not required at FG WEST to evaluate the listed pounds per hour VOCs and HAPs emission rates limits. Instead, to calculate emission rates, the facility uses accepted procedures cited later in sections V.1 and VI.5 to VI.8 of this report.

I. 10 through I. 12 – The particulate matter limits for FG WEST are 0.028 pounds PM per 1,000 pounds of exhaust air; 9.6 pounds PM10 per hour, and 20 tons PM10 per year [12-month rolling time period]. According to the ROP, the emissions rates should be estimated based on the procedure cited in Appendix 7-S1B or other alternative method approved by AQD.

Refer to the comments cited under FG EAST – VI.9 for particulate matter emission calculations using Appendix 7-S1B; the comments are also valid for FG WEST. Similarly, for their annual emission submittal on MAERS, the facility estimates PM-10 emissions in tons per year at FG WEST based on the tons of PM-10 per weight of waste treated, in combination with the amount of waste treated at FG WEST. The emission factor (EF) seems to be derived from a stack test conducted on September 26, 2007 at FG WEST, which resulted in an emission of 0.98 lbs. per hour. For calendar year 2020, the PM-10 from FG WEST was about 0.7586 tons per year, which is below the ROP emission limit of 20 tons per year.

II. MATERIAL LIMIT(S) – In Compliance

Material	Limit	Time Period/ Operating Scenario	Compliance
1. VOC in waste	Maximum of 500 ppm	Monthly average	YES - Refer to “Monitoring/Recordkeeping" under VI.5
2. VOC in waste	Maximum of 0.5% by weight	Daily average for waste accepted for treatment	YES - Refer to “Monitoring/Recordkeeping" under VI.5
3. VOC	VOC evaporation rate from the waste treatment process shall not exceed 60% by weight.	Per ROP - SC V.1	YES - Refer to V.1
4. Volatile Organic HAP in waste	Less than 500 ppmw based on the HAP content of the off-site material stream at the point-of-delivery	Annual average per off-site	YES - Refer to the evaluation of SCs VI.8 / VI. 9

Material	Limit	Time Period/ Operating Scenario	Compliance
		material stream	

III. PROCESS/OPERATIONAL RESTRICTION(S) – In Compliance
In the control room, I checked the operational parameters displayed on the computer screen.

III. 1 - During normal operation defined (as defined in the ROP). The required airflow through FG WEST shall be maintained between 80,000 cubic feet per minute (cfm) and up to a maximum of 110,000 cfm.
According to the semiannual reports for 2020, the airflow through FG WEST has been maintained within the permitted operational ranges with no deviations reported. On 6/11/2021, the 5-minute average airflow displayed on the screen by the flow transmitter FT-607A was 83,990 CFM.

III. 2, III. 3 and III. 4 - The facility shall operate the baghouse dust collector 24 hours a day and always maintain negative static pressure in the waste treatment building during normal operation. The west baghouse differential pressure shall be maintained between 1.5 and 8.0 inches of water column (wc).
Negative static pressure is always maintained in the building during treatment. Not more than one waste treatment process building overhead door is open at a time. Refer to paragraph V.3 comments for verification of the negative static pressure.
According to the semiannual reports for 2020, the differential pressure at FG WEST has been maintained within the permitted operational ranges with no deviations reported. On the day of the inspection the 5-minute average west bag house differential pressure displayed by the differential pressure transmitter PDT-606 was 3.1 inches wc.

I also asked for a sample of a daily record filled out by the operators in their daily routine. The record was provided via email on 6/11/2021. The information included the values of the operational parameters that were recorded by the operator on 12/14/2020. All records for FGWEST were within the permit limits.

III. 5, III. 6 and V. 2 - No waste subject to the control requirements of Benzene NESHAP is treated at FG WEST or stored in FGLIQWASTETKS. No wastes containing any of the prohibited compounds listed on Section 1, FGWEST, SC III.6 (replicated under section 1, FGLIQWASTETKS, SC III.2) are treated at FG WEST or FGLIQWASTETKS. Each waste stream for the compounds listed in SC III.6 are screened using a method acceptable to the AQD.
Benzene concentration and Total Annual Benzene (TAB) quantity for MDWTP are calculated in accordance with 40 CFR 61, Subpart FF (see detailed evaluation under section “Benzene Waste NESHAP requirements”). To assure that permit conditions III.5, III.6 and V.2 are met, the facility screens the type of waste that is accepted for treatment. Their clients shall provide a waste profile/waste characterization to US Ecology before a waste is brought to the treatment site. US Ecology takes about two days to review the paperwork before accepting or rejecting the waste. AQD has not received any notification of new compounds to be added to the list of prohibited compounds cited in SC III.6.

IV. DESIGN/EQUIPMENT PARAMETER(S) – In Compliance
IV.1 & 2 and VI.1 & 2 (records) –- -The permittee shall install, calibrate, maintain and operate in a satisfactory manner the monitoring devices to monitor on a continuous basis, and record five-minute block averages of the air flow through FG WEST and the pressure drops of the treatment building baghouse dust collector.
The parameters are monitored and recorded in accordance with the above cited permit conditions. During the visit on 6/11/2021 I observed the screen in the control room and verified continuous monitoring and five-minute recording of the operational parameters. The monitoring devices and the frequency of calibration are both cited on the following paragraphs.
IV.1 - The west airflow meter Pitot Tube style flowmeter fitted with an ABB 600 T series smart pressure transmitter is still used in combination with a multipoint flow meter that is calibrated annually.
IV.2 - The west bag house has an ABB 600T series pressure transmitter that is calibrated annually.
The annual device calibration was completed on 6/12/2020. A copy of the calibration summary report was received via email on 6/11/2021.

IV. 3 - The permittee shall install, maintain, and operate limit switches in all overhead doors, so as to restrict the maximum operation opening heights to 20 feet except as needed for vehicle or equipment ingress and egress.
The west overhead doors incorporate limit switches to control opening height. They are maintained by lubrication on a quarterly basis, verifying the opening height and bottom seal.

IV. 4 - Sludge feed and storage tank No. 11 (EUSLUDGETANK11) shall be vented into the FGWEST waste treatment process building.
The installation was built to accommodate this venting.

V. TESTING/SAMPLING – In Compliance
V. 1 – As for FG EAST, the VOC evaporation rate from the waste treatment process in FG WEST is also established at 60% by weight. To establish an alternate evaporation rate, the facility could use site specific data, based on testing, with the approval of the AQD District Supervisor. The facility has not requested alternate evaporation rate.

V. 2 – Screening of prohibited compounds – This condition was evaluated above under III.6.
V. 3 - Once a year, the facility is required to verify the negative static pressure in the waste treatment building by testing in accordance with the permit requirements. AQD has to be notified prior to conducting the test.
The facility conducts the negative static pressure verification test once every year. On 8/4/2020 the facility notified AQD via email that a smoke test was going to be conducted at the FG WEST building on 8/21/2020. The smoke test and airflow direction observations demonstrated a negative static pressure condition within the west building, and consequently indicate that the west building continues to meet the negative static pressure criteria.

VI. MONITORING/RECORDKEEPING – In Compliance
Compliance with VI.1 and VI.2 for FGWEST was evaluated earlier under IV.1 and IV.2.

VI. 3 - Written logs are maintained as part of their Preventive Maintenance Procedures, Malfunction Abatement Program, Air Pollution Control Systems Samples. Excursions from

the specified permit limits are recorded and reported on the semiannual deviation reports submitted to AQD.
Samples of their daily, weekly, monthly, and quarterly maintenance logs are provided with the semiannual reports. Copies for year 2020 are attached to the hard copy of this report. For FG WEST the records could include: the date, time and duration of baghouse downtime (if any); the description of maintenance performed on the baghouse (if any) and the date and description of repairs performed on the baghouse (if any).

VI. 4 and VI. 6 - For monitoring/recordkeeping and compliance evaluation with PM and PM-10 emission limits, refer to comments under FG WEST - SC I.10 to I.12

VI. 5 and VI. 7 - The facility prepares monthly reports summarizing the volume of waste stream treated at FG WEST, the VOC content in the waste (daily % by weight) and the monthly and 12-month rolling total VOC emissions. The “DD VOHAP WASTE REPORTS” are submitted to AQD as part of the VOC emissions semiannual reports.

An analysis of the semiannual reports for year 2020 shows:
• monthly average volume of waste treated in FG WEST varied from 529,505 gallons recorded in April to 1,025,499 million gallons recorded in December
• waste treated at FG WEST calculated as a 12-month rolling varying from 10 to 12.9 million gallons
• daily records showing percentage of VOCs in the waste treated varied from 0% to under 0.0499 %, reported in May and November respectively; consequently, daily averages are less than the limit of 0.5% VOC in waste
• VOC monthly average concentrations in waste are less than the maximum 500 ppm (0.05%) limit - based on the values of daily VOC concentrations in waste cited above
• 12-month rolling VOC emissions varied from 0.1509 tons in January, up to a maximum of 0.5251 tons recorded in November. The maximum is significantly below the 40.2 tpy limit
VI.8 - The facility conducted an initial determination of the average Volatile Organic HAP (VOHAP) concentration for each off-site material stream using the procedures specified in §63.694(b) prior to the first time any portion of the off-site material stream was treated in FG WEST. Thereafter, the facility reviews and updates, as necessary, this determination at least once every 12 months following the date of the initial VOHAP determination.

VI. 9 - The facility keeps records of the VOHAP concentration of each off-site material stream processed in FG WEST for each month and 12-month rolling time period. The records submitted under the titled “DD VO HAP WASTE REPORTS” received with the semiannual reports seem to satisfy this condition.

VI.10 - In compliance with PTI 107-14, the facility maintains records for each waste stream treated in FG WEST sufficient to demonstrate that the waste was not subject to the controls requirements of the National Emission Standard for Benzene Waste Operations (NESHAP) 40 CFR Part 61 Subpart FF. For compliance details refer to “Benzene NESHAP requirements” in this report.

VI. 11 - The facility develops and maintains written operating procedures to assure that the operational parameters required per S.C. III.1 are met before the air flow through FG WEST is reduced below the minimum air flow specified in S.C. III.1, or before the permittee no longer maintains negative static pressure as specified in S.C. III.2. Records are maintained indicating the time, date and duration of air flow reduction and/or non-negative static pressure, to assure the operating procedures are being met as specified in the startup, shutdown and malfunction plan. Samples of those records are included in the semiannual

reports submitted to AQD. Samples of a daily, and a quarterly log for year 2020 were provided during the inspection. They are attached to the hard copy of this report.

VI. 12 - Upon detecting an excursion or exceedance through the parametric monitoring of the pressure drop the operators restore operation of FG WEST to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. Refer to the comments applicable to both FG EAST and FG WEST, which were included earlier under FG EAST VI.11 /VI.12.

VII. REPORTING – In Compliance
The requirements listed under this section of the ROP for FG WEST were addresses earlier under FG EAST, paragraph VII.

VIII. STACK/VENT RESTRICTION(S) – In Compliance
The design of the stack at FG WEST has not been modified since the last re-issuance of the ROP. According to the ROP, the maximum diameter for the exhaust stack shall be 54 inches in diameter and the minimum height above the ground shall be 75 feet. The system has been designed so that the exhaust gases from the stack discharge unobstructed vertically upwards to the ambient air. Visible emissions from the stack were not detected during the tour of the facilities.

IX. OTHER REQUIREMENT(S) – In Compliance
This section of the ROP contains the same special conditions cited for FG EAST. Refer to FG EAST for compliance evaluation.

BENZENE WASTE NESHAP REQUIREMENTS
These requirements are applicable to the following flexible groups and ROP Special Conditions (SC): FG EAST (SC IX.1), FG WEST (SC III.5, VI.10 and IX.1), FGLIQWASTETKS (SC III.1 and VI.5) and FGTMTFACILITY (SC IX.3)
The following analysis refers to the National Emission Standards for Benzene Waste Operations (BWON) specified in 40 CFR Part 61 Subparts A and FF as they apply to the MDWTP facility at US Ecology. Compliance status with the applicable provisions of the cited regulation is evaluated here.
MDWTP is a Treatment, Storage and Disposal Facility (TSDF) that receives hazardous waste from offsite facilities (i.e. petroleum refinery, chemical manufacturing plants) listed under section 61.340(a) of Subpart FF. The listed offsite facilities are subject to BWON. Per section 61.340(b), a TSDF that receives/manages benzene-containing hazardous waste streams generated at the listed offsites facilities is also subject to the specific provisions of Subpart FF as they apply to TSDFs.
The main parameter that defines the applicability of the management, treatment and control standards identified in BWON is the value of the Total Annual Benzene (TAB) quantity from the facility waste. The TAB is the total annual mass of benzene contained in certain wastes determined at the point of waste generation. For the MDWTP the TAB is determined in accordance with section 61.342(a). If the TAB is more than 10 Megagrams per year (Mg/yr) (11 tons/yr), the waste is subject to the control requirements specified under section 61.342 (c).
For the specific case of MDWTP, there are two TABs associated with the facility; the generator's TAB (which is the TAB of the waste generated at the offsite facility) and the TAB for the TSDF. The determination of the TAB for wastes that are received from offsite facilities is made at the point where the waste enters the TSDF. For TAB calculations, US Ecology uses the procedure cited on 61.355 (a). The determination of the flow-weighted

average benzene concentration is based on the criteria cited on 61.355 (c) (1) (i) (C) in combination with the “Knowledge of the waste” (records of chemical waste analysis) per 61.355 (c) (2).
Based on the TAB value (TAB > 10 Mg/yr.), which is updated annually by US Ecology and submitted to AQD as part of the reporting requirements cited on 61.357, the storage and treatment of benzene-containing hazardous waste streams subject to the emission controls of Subpart FF is restricted to the East Treatment Building - flexible group FG EAST in the ROP. However, the facility must still comply with the recordkeeping requirements of 61.356 and the reporting requirements of 61.357(d) (7) (iv) for both FG EAST and FG WEST.
The facility maintains records for each waste stream treated at FG WEST and FG EAST. The identification of the waste is done in accordance with the procedure cited on 61.355 (c) (2) [Knowledge of the Waste].]
Permit conditions within FGWEST and FGLIQWASTETKS prohibit waste streams subject to the control requirements of BWON from being processed in the process units associated with the cited flexible groups. The 2020 annual report submitted by US Ecology on March 18, 2021 (pursuant to section 61.357) summarizes the regulatory status of each waste stream subject to the control requirements of BWON. The report only listed tanks E, F, G and H (located in East Building), demonstrating that benzene-containing wastes are not processed in FG WEST or in FGLIQWASTETKS.
MDWTP is exempt from the reporting requirements cited on 40 CFR 61.357 (d)(7) (i-ii) for the following reasons: 1) It complies with 40 CFR 61.348(d)(3) by treating waste streams to a level that meets benzene-specific treatments standards in accordance with the Land Disposal Restrictions (LDR), under 40 CFR Part 268, 2) The treatment process is designed and operated with a closed-vent system and control device meeting the requirements of 61.349 by operating an enclosed combustion device – the RTO-at a minimum temperature of 1,500 °F and a minimum residence time of 0.5 seconds.
Per 40 CFR 61.357(d)(7)(iv)(A) – The RTO is what this subpart defines as a Thermal Vapor Incinerator. Continuous monitoring records for the RTO, which includes temperature, are maintained on-site.
Per 40 CFR 61.357(d)(7)(v) – At all times, FGEAST is operated with negative static pressure in the treatment building and negative air pressure is maintained except when the system is not operating. Procedure T, to demonstrate “Permanent Total Enclosure” and explained earlier in this report, has been performed annually and records are on site.
The 2020 annual report was reviewed by AQD. The reports included the updated Total Annual Benzene (TAB) from 01/01/2020 to 12/31/2020 as required per 40 CFR 61.357 (d) (2). The summary tables list the hazardous waste streams identifying: the waste generator and the Standard Industrial Code (SIC), the average water content (%), the receipt date, the disposal date, the transship location if the waste is disposed on-site, the waste quantity in Kgs., the benzene concentration in ppm, the generator’s TAB, the US Ecology’s TAB at the point of waste receipt, the annual flow weighted benzene concentration, and whether or not the waste is control exempt.
The records showed that the TAB for year 2020 was zero, indicating that none of the Benzene containing waste streams received in 2020 had an annual average water content above 10 %.
Based on AQD review of the annual report for year 2020, US Ecology appears to be substantially in compliance with the above cited applicable requirements pertaining to the Benzene Waste NESHAP.

FGLIQWASTETKS
This flexible group includes four 20,000-gallon liquid waste holding tanks: EULIQWASTETK16, EULIQWASTETK17, EULIQWASTETK18, EULIQWASTETK19.

I. EMISSION LIMITS – In Compliance
I.1 to I.5 - There are hourly, monthly and yearly (12-month rolling time period) emission rates limit for VOC and halogenated VOC but there are not testing requirements associated with the listed emission limits. Proper operation and maintenance of the control equipment connected to the process tanks (i.e. carbon adsorption canister) as well as proper monitoring and recordkeeping, are indicators of compliance with the cited limits. Those requirements are addressed under section IV and VI.1 below.

II. MATERIAL LIMITS – In Compliance
II.1 - The holding tanks can be used to store waste containing “Volatile Organic HAP” (VOHAP) up to less than 500 ppmw based on the HAP content of the off-site material stream at the point-of-delivery. The monitoring requirements and compliance status with the cited limit are evaluated under section VI.3 and VI.4.

III. & V. PROCESS /OPERATIONAL RESTRICTIONS and TESTING/SAMPLING – In Compliance
III.1, III.2 and V. – Waste subject to the control requirements of BWON or waste containing any of the prohibited compounds listed in special condition III.2, is not stored in FGLIQWASTETKS.
To assure compliance with SC III.1, SC III.2 and SC V, the facility implements controls for the screening and approval of waste to be treated at the site (for details see item III.6 under FG WEST in previous section of this report).

IV. DESIGN/EQUIPMENT PARAMETER(S) – In Compliance
IV.1 Vents of the tanks are routed through two activated carbon canisters (Siemens Vent Scrub-TM) connected in series and properly operated.

IV.2 The canisters were inspected. They are equipped with saturation indicators as required by this ROP permit condition. The indicators are monitored as part of the facility's daily preventive maintenance checklist. Examples of preventive maintenance forms have been collected in past inspections and the list showed monitoring the saturation indicators as an item to be evaluated within their daily routine.

IV.3 The replacement of the carbon canisters shall be done when the activated carbon is spent (70 percent used). A change in color of the activated carbon column from brick-red to brown is an indication that the activated carbon is spent. At the time of the visit I observed that only the very top portion of the activated carbon column (about 1/2 inch in a 6-inch column) showed a changed in color from red to brown. The facility achieve compliance by implementing proper maintenance procedures. The canisters are replaced annually even if the carbon bed doesn’t show 70% saturation in a year of usage.

IV.4 The tanks are sealed to prevent VOC emissions to the ambient air. They are connected to carbon canisters that capture VOCs through carbon adsorption. The carbon canister can’t be bypassed. AQD did not request records to verify if “bypass conditions” have occurred. It is assumed that the tanks have been operated properly since the facility has not reported such condition in their routine semi-annual ROP reporting.

V. TESTING /SAMPLING – In Compliance
This condition was addressed earlier under together with SC III.2.

VI. MONITORING/RECORDKEEPING – In Compliance

The following records are maintained for a 5-year period:

VI.1 – The facility keeps written logs for maintenance and replacement of the activated carbon from the carbon canisters. The logs include: the date of observation, saturation status, and the activated carbon replacement date. Template formats used for the collection of maintenance records have been provided during past inspections; however, the maintenance records for year 2020 were not collected.

VI.2 – The facility calculates and maintains records of VOC and halogenated VOC emission rates from FGLIQWASTETKS. According to the report submitted by US Ecology under the Michigan Emission Report System (MAERS) the combined throughput (waste processed in all four holding tanks) in 2020 was zero. In other words, the tanks did not receive any new material for storage in 2020. The VOC annual emission rate was reported as zero for all tanks The absence of VOC emissions from these tanks is common. Based on the information provided by facility personnel and supported by MAERS historical records, the waste material handled in tanks 16, 18, and 19 have typically been storm water and leachate waste with non-detectable quantities of VOC. Tank 17 has been the only tank used to store VOC containing material. From 7/2007 to 6/2008, tank 17 stored leachate with a VOC content of less than 500 ppmw and from 5/2013 to 6/2013, the tank accepted Marathon waste with less than 500 ppmw. In the following years until 2019 the facility reported very low throughput volumes for RGLIQTANKS and negligible or zero VOC emissions. For example, in 2019, MAERS reported a combined throughput of 106,340 gallons per year for all four tanks and total emissions of 0.01 lb /year (only VOC in waste stored in TK 16 and TK 18).

VI.3 to VI.5 –The requirements listed under SC VI. 3 to SC VI.5 for FGLIQWASTETKS are the same requirements that were evaluated earlier in this report for FG WEST under sections VI.8 to VI.10. Please refer to those sections for details.

VI.6, VI.7 – Further evaluation is needed to determine compliance with these conditions. These two ROP conditions require the facility to keep the following records for all storage tanks subject to 40 CFR Part 60 Subpart Kb: 1) operating plan and the measured values of the parameters monitored in accordance with the plan; 2) dimensions of the storage vessel and an analysis showing the capacity of the storage vessel. The second set of records should be kept for the life of the source.
It appears that when the storing operations were first evaluated/permitted, it was determined that the holding tanks (No. 16 to No. 19) were subject to Subpart Kb because each tank has a design capacity above 71 cubic meters (18,756 gallons) and the tanks would be holding VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa (4 psia) but less than 76.6 kPa (11 psia). Therefore, the tanks were equipped with control device (carbon adsorption canisters) meeting the specifications cited on 60.112b (3): “A closed vent system designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background”. However, as it was noted in section VI.2, it seems like the tanks have not been used to store VOL containing waste. Therefore, for a better understanding of the routine storage operations and to evaluate the applicability of Subpart Kb to the tanks, AQD will ask US Ecology to reevaluate the tanks functions during the ROP renewal process. Among other things, US Ecology should: characterize the type of waste stored in the tanks, provide the true vapor pressures of the stored liquid wastes, provide records to demonstrate the maintenance of the control device, and describe the procedures in place for general monitoring and recordkeeping.

VII. REPORTING – In Compliance
The requirements listed under this section of the ROP for FGLIQWASTETKS were addressed under FG EAST, paragraph VII.

VIII. STACK/VENT RESTRICTIONS - In Compliance
The discharge of exhaust gases is through carbon canister installed at each tank.

IX. OTHER REQUIREMENTS – Refer to cited sections for compliance status (as applicable)
IX.1 – Refer to VI.6 and VI.7 for FGLIQWASTETKS.
IX.2 – The facility keeps records of the VOHAP concentration of each off-site material stream processed in FGLIQWASTETKS for each month and 12-month rolling time period. The records submitted under the titled “DD VO HAP WASTE REPORTS” received with the semiannual reports seem to satisfy this condition.
IX.3 – A copy of the Preventive and Malfunction Abatement Plan was not requested during this inspection.

FGSILOS
EUSILO1-3 and EUSILO4-6 are used to store reagent, including (but not limited to) fly ash, lime, and cement kiln dust. Silos 1 through 3 serve the west side treatment plant, and silos 4 through 6 serve the east.

I to IX - In Compliance
All special conditions listed for FGSILOS are evaluated here:
The ROP SC I.1 and SC I.2 specifies a PM limit of 0.028 lb per 1,000 lbs of exhaust air and PM10 emission limit of 0.12 pph. Each silo is equipped with a baghouse dust collector that should be properly installed and operated to minimize visible emissions.
To demonstrate compliance with the cited emission limits the facility is required to monitor and record visible emission observations (as described in Appendix 3-S1) of each reagent silo baghouse exhaust once per calendar month during a period when that silo is being filled. The activities shall be recorded in accordance with the air pollution control system written procedures stated in the Preventive Maintenance and Malfunctioning Abatement Plan (MAP). Deviations from the cited requirements, as well as corrective measures, are to be reported to AQD in the semi-annual reports.
In compliance with SC III.1, SC V. 1 and SC VI.1 and as it is described in Appendix 3-S1 of the ROP, the operators conduct visible emissions observations once per calendar month during a period when each silo is being loaded. They keep monthly logs of their observations (per SC VI.1). Records are kept for a period of five years. A monthly log with the collected visual observations for the month of May 2021 was provided for this inspection. The log indicated the absence of visible emissions for all readings during the month. Semi-annual reports were submitted with no reported deviations for year 2020. AQD did not request/review the MAP during the inspection.
The 2020 MAERS reported a total throughput of 59,912 tons of material stored in the silos and an estimated PM emission rate of 533.22 pounds for that year (or 0.061 pph). This estimate was based on a controlled emission factor of 0.0089 pounds of PM per ton of material loaded to the silos - obtained from AP-42, Table 11.12-2 (year 2011 edition). The estimated average rate of PM emission in pph is less than the permit limit of 0.12 pph.

FGTMTFACILITY
II. MATERIAL LIMITS - In Compliance

The overall requirements on the treatment facility (FGTMTFACILITY) limit the waste throughput to 576,000 gallons per calendar day and to 210.24 MM gallons per 12-month rolling time period. The 12-month rolling total VOC in waste is limited to 1,584 tons per year (tpy).

AQD reviewed and evaluated the semi-annual DD VO HAP Waste Reports received by AQD Detroit office on 9/15/2020 and on 3/18/2021 for calendar year 2020. The analysis is summarized in the attached tables titled “MDWTP Receipt Logs and 12-month rolling for year 2020”. According to the reports, the highest daily rate of waste processed at the facility was reported for December 7, 2020, with a value of 167,246 gallons, representing about 29% of the ROP calendar day waste throughput limit of 576,000 gallons.

The highest 12-month rolling total for 2020 was 26,796,459 gallons recorded at the end of January. This figure is about 12.75 % of 210.24 MM gallons per year - the limit set in SC. II.2 for FGTMTFACILITY. Additionally, as indicated in previous sections of this report, the facility maintains daily, monthly, and 12-month rolling records of the type of waste (hazardous & nonhazardous) and the amount of waste processed, as well as the VOC concentrations of the waste. Most of the information is included in the semi-annual reports submitted to AQD.

Refer to table “MDWTP Semi-annual VOC records for year 2020”. The records for year 2020 showed a maximum VOC in waste of 59.5 tpy, 12-month rolling total at the end of March 2020, which represents only a 3.75 % of the limit 1,584 tons per year of VOC in Waste.

To minimize errors and to ensure accuracy in the calculations, the facility doesn’t use waste densities to calculate the tons of VOC in the waste treated and the VOC emitted (as it is suggested in Appendix 7-S1. A of the ROP). Instead, they use the actual weights in pounds of bulk loads. Therefore, conversion from gallons or yard to pounds is unnecessary. In addition, when calculating VOC weights of waste received in containers, the facility assumes that all containers are full and standard weights are assigned to each container size as follows:

Container Type	Weights in Pounds	Container Type	Weight in Pounds
cubic yard boxes	2,000	20-gallon buckets	168
275-gallon totes	2,295	10-gallon buckets	84
85-gallon containers	709	5-gallon buckets	42
55-gallon containers	409		

These equivalents-weights in pounds were established in 1998 during the discussions that took place when the permit to install the RTO was issued.

III. PROCESS/OPERATIONALRESTRICTIONS – In Compliance

III. 1 - The required fugitive dust emission control measures are maintained; sweeping logs and dust suppressant applications are routinely recorded. A sample reporting the days when the sweeper truck was used on the roadways was collected in this inspection and it is attached to this report.

IV. DESIGN/EQUIPMENT PARAMETERS – In Compliance

IV.1 - The applicable paragraphs of 40 CFR Part 63 Subparts A and DD identified in this condition were evaluated earlier in this report under the specific emission units and/or flexible groups described in ROP Section 1.

IV.2 – The applicable paragraphs of 40 CFR Part 61 Subpart A and FF identified in this condition are evaluated earlier in this report, under Benzene Waste NESHAP requirements.

V. TESTING/SAMPLING – This requirement is analyzed under section VI.4 to VI.7.

VI. MONITORING/RECORKEEPING – In Compliance
The records cited below are maintained on file for a 5-year period
VI.1 and VI.2 - These two conditions were evaluated earlier under the monitoring and recordkeeping section for each flexible group (FG) or emission unit (EU).

VI.3 - A written daily log of the wetting or sweeping of all paved roads and parking lots is kept on file. AQD requested a sample of this record and attached it to this report.

VI.4 to VI.7 (Also V.1 and V.2 and IX.1 to IX. 3)– For the evaluation of compliance with the applicable testing, inspections, monitoring and recordkeeping requirements of Part 61 Subpart FF, refer to “Benzene Waste NESHAP requirements”. For the evaluation of compliance with the applicable NESHAP regulations from Off-Site Waste and Recovery Operations (40 CFR Part 63 Subparts A and DD) grouped under this ROP condition, refer to the individual emission units discussed earlier in this report.

FGTDU
All units listed on this flexible group have been dismantled and any building that is still standing in that area is used as storage.

FGCOLDLEANERS
The concentration of halogenated compounds in the cleaning solvent used at the facility for parts-washing is limited to 5% by weight. The VESCO cold cleaner located in the vehicle maintenance building employs mineral spirits. Maintenance procedures, as recommended by VESCO, are regularly conducted. According to MAERS, the facility only used 17 gallons of solvent in 2020. VOC emission were reported to be 111.5 pounds.
AQD did not visit the area of the cold cleaner, so the equipment design parameters and operating procedures (i.e., presence of device for draining clean parts, cover open or close, written operating procedures posted) were not evaluated.

FGRULE 290 – This section will be addressed during ROP Renewal
EUDRUMSTORAGE
Rule 290 limits the total emissions of air pollutants as follows,
Up to 1,000 pounds per month of uncontrolled emissions and up to 500 pounds per month for controlled emissions:

- For noncarcinogenic VOC and noncarcinogenic materials listed in Rule 122(f) [compounds not contributing appreciably to ozone formation].
- For noncarcinogenic air contaminants with initial threshold screening levels (ITSL) equal to or greater than 2 mg per cubic meter - excluding noncarcinogenic VOC and noncarcinogenic materials listed in Rule 122(f).
  The emission limit drops to 20 pounds per month (uncontrolled emissions) and to 10 pounds per month (controlled emissions):

- For noncarcinogenic air contaminants with ITSL greater or equal to 0.04 mg per cubic meter and less than 2 mg per cubic meter - excluding noncarcinogenic VOC and noncarcinogenic materials listed in Rule 122(f).
- For carcinogenic air contaminants with IRSL greater than or equal to 0.04 mg per cubic meter.
  Zero emissions for:

- Air contaminants with IRSL of less than 0.04 mg per cubic meter - excluding noncarcinogenic VOC and noncarcinogenic materials listed in Rule 122(f).

MAERS report for year 2020 recorded a total annual throughput of 24,280 closed containers as part of EUDRUMSTORE and the VOC emissions totaled 26.94 pounds per year, which would translate into an average of 2.21 pounds per month.

Further information is needed about the carcinogenic levels of the waste stored in the drum storage area to evaluate compliance with Rule 290. The facility would be in compliance with the cited emission limits if the drums contain noncarcinogenic materials. However, AQD needs records identifying the air contaminants that are emitted, including the quality, nature (including carcinogenicity), and quantity of the air contaminant emissions in sufficient detail to demonstrate that the actual emissions from EUDRUMSTORAGE meet the emission limits outlined in Rule 290.
US Ecology indicated that this flexible group will be reevaluated during the ROP renewal process.

4. <u>ROP SECTION 2 – Wayne Energy Recovery (WER)</u>
The following information is included in this inspection report because the emission units listed in ROP Section 3 are still part of the current ROP.

4.1 – Regulatory Framework
The processing/control equipment that treated and collected landfill gas for subsequent use in the engines was subject to the requirements of Part 62 Subpart GGG (The Federal Plan) and involved the applicability of 40 CFR Part 60 Subpart WWW (Landfill NSPS) by reference. Having accepted a limit of 190 tons/year for NOx emissions, the prevention of significant deterioration (PSD) regulations under Michigan Part 18 rules did not apply. As of October 19, 2013, Engines 2 and 5, 4-stroke, rich burn landfill gas fueled engines rated at 500 horsepower were subject to the RICE MACT under 40 CFR Part 63 Subpart ZZZZ. Engine 3, the emergency engine, was subject to the work or management practice of Part 63 - Subpart ZZZZ. The ROP did not incorporate the SI RICE MACT requirements for the cited engines. Engine 4 was not subject to the SI RICE MACT requirements pursuant to 63.6590 (b) (3) (v), because the BHP is above 500 hp. None of the emission units at WER were subject to CAM.

4.2 – Emission Units Descriptions and Field Observations
The following is a brief description of the process operations and the emission units currently listed on ROP Section 2 (WER).

Built in 1986, WER was the first plant in Michigan using landfill gas (LFG) to generate electricity. The LFG, supplied by numerous wells located in six master cells operated by WDI, was treated before its usage as a combustible in the reciprocating engines. The treatment system identified in the ROP as EUTREATMENTSYS was installed as part of the controls for the LFG. All the reciprocating engines were grouped under the flexible group FGENGINES with emission units identified as EUENGINE2, EUENGINE3, EUENGINE4 and EUENGINE5.

The permit lists an open flare, EUOPENFLARE, as an open combustor without enclosure or shroud. The facility never had an operational open flare; therefore, the standard conditions included in the ROP for EUOPENFLARE never applied.

EUTREATMENTSYS - This system removed particulate to at least the 10-micron level, compressed the landfill gas and removed enough moisture to ensure good combustion of gas for subsequent use. A 12-inch header connected the gas collection systems on each master cell. A rotary vane compressor was used to produce up to 30 inches water column vacuum in the collection system and to compress the gas to 20 psig. A gas to air heat exchanger cooled down the compressed LFG. The LFG passed through two coalescing filters to remove any LFG condensate and compressor oil. An automated valve controlled the compressor discharge pressure by bleeding excess gas back to the compressor inlet. At that point, the gas pressure, temperature, and flow rate were measured and recorded. The system could compress up to 600 cfm of LFG; however, production of LFG dramatically decreased in the last years.

FGENGINES – LFG was piped to the engines room where it passed through another coalescing filter before feeding the engines. The Caterpillar (G-398s) engines, have 12 cylinders and 48-liter displacement. Engines No. 2, 3 and 5 are naturally aspired engines rated at 500 hp (actual 350 kW). Engine No. 4, rated at 710 hp (actual 500 kW) is turbocharged. Electricity was generated and sold to Detroit Edison. WER only operated two of the engines at any given time. Engine 3 was used as an emergency engine. Engine 2 operated little during its last three years. Significant decrease in production of landfill gas and the age of the engines seemed to be the cause of the reduced operating schedules and shutdown. Although the facility was permitted to burn natural gas, only LFG was burned in the engines. The engines were installed in the 1980s (except for engine 5 – installed circa 2001). The combustion technology was rudimentary compared to modern engines and there had been various modifications to comply with stricter exhaust emission requirements. Engines 2 and 5 were modified to comply with stricter emission regulations required by NESHAP SI RICE engines controlling CO emissions.

Field Observations (6/11/2021)
After the decommissioning of the LFG control system (GCCS) the shutdown of engine operations at WER occurred on 12/28/2017. For more details about the approval of the GCCS decommissioning refer to ROP Section 3.

During the inspection of the WER building on 6/11/2021 I verified the conditions of the equipment and unit operations at the plant. The conditions in the building were the

same I encountered in my last inspection of 2019; the landfill gas compressor was dismantled, the landfill gas feeding valve was red-tagged, shut and locked-out with a lock-chain. All four engines remain at their original location, all shut down and disconnected from the LFG feeding source. The monitors connected to the kilowatt meter on each engine, which continuously monitored and recorded the electrical output, showed zeros, indicating no electrical power generation for the grid. In conclusion, nothing has changed, the plant continuous inoperable. Ms. Scott says that in the future, when the building is emptied, the plan is to use it for storage.

4.3 – ROP Section 2 - Compliance Evaluation

The special conditions and requirements cited on Section 2 of the ROP for the emission units (EUs) that were described in section 4.2 of this report are no longer applicable since the plant shutdown on 12/28/2017. To remove Section 2 from the ROP, US Ecology needs to submit a new ROP marked-up renewal application to re-start the renewal process or seek approval for an ROP minor modification.
The ROP underlined applicable requirements cited for EUTREATMENTSYS in ROP Section 2 were covered under the Landfill Federal Plan and enforced by US EPA. AQD did not have authorization to enforce.

5. <u>ROP SECTION 3 – WAYNE DISPOSAL Inc. (WDI)</u>

The following information is included in this inspection report because the emission units listed in ROP Section 3 are still part of the current ROP.

5.1 – Regulatory Framework

The existing, closed municipal solid landfills have been regulated under the Federal Plan Requirements for MSW Landfills at 40 CFR Part 62, Subpart GGG (Landfill Federal Plan - promulgated on November 8, 1999) because they commenced construction, reconstruction, or modification before May 30, 1991. The Landfill Federal Plan requires owners and operators of existing MSW landfills with design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters of solid waste to calculate the non-methane organic compound (NMOC) emission rate using the procedures in 40 CFR 60.754. If the NMOC emission rate is greater than 50 Mg/year for the entire landfill, the landfill must install and operate a Gas Collection and Control System, (GCCS) in accordance with the requirements in the New Source Performance Standards for MSW Landfills at 40 CFR, Part 60, Subpart WWW (Landfill NSPS). WDI calculated a NMOC emission rate for the landfills greater than 50 Mg/year and was required to install a GCCS.

AQD has not had jurisdiction over these landfills because the EPA has not delegated authority to Michigan to implement and/or enforce the requirements of the Federal Plan cited under 40 CFR Part 62, Subpart GGG. Please note that Part 62, Subpart GGG does not explicitly cite the provisions and regulatory requirements applicable to landfills; instead, it refers to the provisions included in Part 60, Subpart WWW - “Standards of Performance for MSW Landfills”. Likewise, Section 3 of the Title V permit for US Ecology, cites the regulatory requirements for WDI and the language refers to the provisions in Part 60, Subpart WWW.

The landfills are subject to 40 CFR Part 61 Subpart M, the Asbestos NESHAP. Under the authority of R 336.1942, the Air Quality Division (AQD) has adopted the Asbestos NESHAP by reference in R 336.1902.

For details about enforcement/compliance issues related to Section 3 of the ROP please refer to the AQD files for WDI MSW landfills. The revised Final Control Plan (FCP) submitted to EPA on February 4, 2004, for MSW landfills was approved by EPA on April 26, 2004. Additional revisions to the FCP, as well as EPA enforcement actions and updates are also in AQD files.

As indicated earlier in this report, WDI's Hazardous Waste Management Facility Operating License issued by EGLE specifies the hazardous waste activities that WDI can perform. The federal law, RCRA of 1976, as amended, its rules, and the corresponding state hazardous waste regulations specify how the facility must operate to protect human health and the environment. They also identify the authorities that EGLE's Materials Management Division has in licensing and overseeing the facility's hazardous waste operations.

5.2 – Emission Units Description

The four municipal solid waste (MSW) landfill sites, identified as Old Wayne, Fons, Site No. 1 and Site No. 2 are in a contiguous geographical space. Old Wayne, Fons, and Site 1 have passive gas control systems consisting of continuously sparking solar flares. Site No. 2, consisting of Master Cells I, IV, IX, X and XI, with an Active Landfill Gas Collection System (EUALGCS) which has been converted to passive system after the 2017 EPA authorization to decommission and shut down of the gas collection wells at Site 2 (for details see compliance evaluation in item 5.3)

Part C of Section 3 outlines the terms and conditions that are specific to the individual emission units described below:

EULANDFILLS: This emission unit represents the general Municipal Solids Waste (MSW) Landfills; four contiguous sites (Site 1, Old Wayne, Fons and Site 2) in which municipal waste was co-disposed with hazardous waste.

EUALGCS: Active Landfill Gas Collection System - This emission unit represents the active landfill gas collection system at the landfill that used gas mover equipment to draw landfill gas from the wells and moved the gas to the treatment equipment.

EUASBESTOS: Any active or inactive asbestos disposal site.

EUPLGCS: Passive Landfill Gas Collection System - a landfill gas collection system that solely used positive pressure within the landfill to move the landfill gas rather than using gas mover equipment.

EUVENTFLARE: Self-igniting (solar powered) flares - open combustor without

enclosure or shroud.

5.3 – ROP Section 3 – Compliance Evaluation

EULANDFILLS, EUALGCS, EUPLGCS, EUVENTFLARE

As indicated earlier, in compliance with the applicable requirements, WDI installed and operated a Gas Collection and Control System, (GCCS) at the landfills. The control program had been approved by EPA. The original GCCS was installed in 1985 and it was fully operational by 1993 when the last master cell closed in Site No. 2.

The GCCS could only be removed after all the conditions specified in ROP Section 3, EULANDFILL, IX.12.a. (i to iii) were met. Those conditions refer to three federal requirements for GCCS capping or removal which are cited below.

WDI landfills were regulated under 40 CFR Part 62 Subpart GGG (the Federal Plan). The requirement to close a GCCS per 40 CFR Part 62.14352(f) refer to the GCCS removal requirements listed in 40 CFR Part 60 Subpart WWW. Hence, in accordance with 40 CFR Part 60.752(b)(2)(v), a landfill must meet the following three requirements to request approval to decommission a gas collection system:
(v) The collection and control system may be capped or removed provided that all the conditions of paragraphs (b)(2)(v) (A), (B), and (C) of this section are met:
(A) The landfill shall be a closed landfill as defined in §60.751 of this subpart. A closure report shall be submitted to the Administrator as provided in §60.757(d)

(B) The collection and control system shall have been in operation a minimum of 15 years; and

(C) Following the procedures specified in §60.754(b) of this subpart, the calculated NMOC gas produced by the landfill shall be less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

In 2017 WDI requested the EPA's authorization to remove the GCCS for WDI landfills in a letter prepared by WDI's consultants dated 1/25/2017 which was sent to Nathan Frank, EPA Region 5 on behalf of WDI. The letter discussed in detail the three criteria listed above and demonstrated that the landfill's GCCS could be permanently shut down.

Here is the summary of WDI's evaluation of the three-requirements established under 40 CFR Part 60.752(b)(2)(v):

Closed Landfills - 60.752(b)(2)(v)(A)
The definition of closed landfill per 40 CFR 60.751 states:
Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of

modification as prescribed under § 60.7(a)(4). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed.

According to WDI none of WDI's landfill areas have filed a notification of modification and are not approved to accept additional waste. The solid waste disposal areas ceased placement of waste as follows, and as a result meet the definition of a closed landfill identified in 40 CFR 60.751

- Fons Landfill - 1973
- Old Wayne Landfill - 1972
- Site 1 - 1978
- Site 2
  Master Cell I -1978
  Master Cell IV - 1981
  Master Cell V - 1983
  Master Cell IX -1989
  Master Cell X - 1993
  Master Cell XI -1985

WDI added that the closure report described in 40 CFR 60.725(b)(2)(v) was not required at the time these landfill areas were closed, because they were closed before this requirement existed, and thus closure reports are not available. No waste has been accepted in any of these cells since they were closed.

Based on these facts, the landfills appeared to meet the requirements of 40 CFR 60.752(b)(2)(v)(A) and are, in fact, closed landfills.

GCCS Time in Operation - 60.752(b)(2)(v)(B)
In the letter of 1/25/2017, WDI provided EPA with details regarding compliance with the second requirement [60.752(b)(2)(v)(B)]. The letter said that EPA established October 6, 2002, as the start of the post-closure operating period for the GCCS, the 15-year period ends on October 6, 2017. WDI added that the active GCCS has been in continuous operation for approximately 31 years, with the final portion of the system (closure of MSW master cell at Site 2) being operational for approximately 22 years. However, those additional years were not counted by EPA because the GCCS construction predated EPA specifications and the wellheads design required by Subpart WWW.

NMOC emissions - 60.752(b)(2)(v)(C)
WDI showed in three consecutive measurements that the landfills were generating substantially less than 50 Mg/year of NMOC, in fact nearly 90% less which was consistent with the fact that Old Wayne, Fons and Site 1 landfills have been closed for at least 43 years and the Site 2 master cells closed for 24 years.

As a result of WDI's demonstration, WDI received authorization from EPA on May 16, 2017, to decommission the GCCS on Site No. 2 after October 6, 2017. In the approval

letter the EPA allowed WDI to start the construction of a new “Subtitle C” Hazardous Waste cell (HW) or Master Cell (MC) overlaying Cell IV before October 6; as long as a liner (with the specifications cited on the letter) was placed on top of the current Cell IV to prevent gas from escaping the surface of the landfill. The EPA approval letter, copied to AQD District Office, also indicated that WDI may cap or remove its GCCS at the remaining landfill cells after October 6, 2017, since all conditions per 60.752(b)(2)(v) will have been met on that date.

WDI should also demonstrate compliance with ROP, EULANDFILL condition IX.12.a. iv., which required maintaining the integrity and effectiveness of the final cover system. For this, WDI sent a letter dated 2/11/2019 to EGLE’s MMD, Southeast Michigan District Office, requesting an evaluation of the landfill alteration. In the letter, WDI indicated that the replacement of the active landfill gas wells with passive vents would not require excavation or removal of the existing structures. Therefore, no damage to the existing cap would occur during the alteration process. MMD’s email response dated 6/22/2021 indicated that the decommissioning of the gas wells and conversion into passive vents complied with R 299.4449(1)(a) and the work done has not compromised the integrity and effectiveness of the final cover. Based on MMD’s response, WDI seems to have demonstrated compliance with EULANDFILL condition IX.12.a. iv.

Construction activities for MC VI are conducted in phases and will continue for several years. The first phase started after May 2017 and included the installation of a leachate collection pipe in Master Cell IV. Portions of the cell that were not impacted by the construction activities continued to be managed through the active gas collection system until the shut-down of the GCCS on December 28, 2017.

As informed from Ms. Scott after my inspection of 6/11/2021, passive vents were installed after the 2017 EPA’s decommissioning approval. All of them were installed around the same timeframe, with a few weeks apart. The flares are passive solar flares which were installed at the same time as the passive vents. The EUVentFlare was part of the 2017 decommissioning approval. Some of the landfill cells were not active gas collection systems, they were passive with solar flares. Those cells were included in the demonstration letter of 1/25/2017 to the EPA. The transition to passive vents was done to give the methane (that could be present) a path of least resistance. The passive flares were installed in selected locations that may have more gas coming out of the vent than others. The flare on MC V is an active flare installed under exemption Rule 285(2)(aa) within the last three years. It was installed to address methane that was making it into the leak detection system of the cell that was built on top of it.
In conclusion, as a result of the EPA authorization of May 16, 2017, WDI’s closed municipal solid waste cells are no longer subject to the gas collection control requirements of 40 CFR Part 62, Subpart GGG. In addition, with the final cap of the active and passive GCCS and consequent caseation of the operations at WDI, the special conditions and requirements cited on Section 3 of the ROP for the above identified emission units (EUs) are no longer applicable; except for EUASBESTOS,

which is evaluated herein.

EUASBESTOS
During the inspection I collected information about the operational and recordkeeping procedures used by US Ecology to handle asbestos-containing waste materials. The records are discussed below. There are portions of Subpart M cited under EUASBESTOS that are enforced by the asbestos program within the AQD.
There are no emission or material limits specified, therefore sections I and II are not applicable to this emission unit.

On 6/9/2021 I contacted Ms. Scott and asked if there have been any updates or changed in the operational, monitoring, recordkeeping, and reporting procedures for the handling of asbestos-containing waste received at the facility. Ms. Scott responded on the same date indicating that there have not been changes and the information collected during the inspection of 2019, is still accurate. Her responses are transcribed in *Italic* for each one of the special conditions evaluated. During the inspection of 6/11/2021 I also had a brief discussion with Ms. Scott about the EUASBESTOS requirements.

III. PROCESS/OPERATIONAL RESTRICTION(S) – In Compliance
III.1- The facility must meet the operational requirements cited on SC III.1 (a), (b), (c) or (d) or a combination of the cited options, to guarantee no visible emissions to the outside air from any active waste disposal site where asbestos-containing waste material has been deposited; and to deter access by the general public to the waste disposal site.
"The facility has operational procedures in place that transfer friable asbestos that could cause visible emissions directly into the active face of the landfill instead of the transfer box. Additionally, most of the friable asbestos received is packaged in what they referred to as a burrito warp. It is basically a plastic liner that lines the truck and wraps around the waste entirely. When this is dumped out of the truck it slides right out without ever exposing the waste. Both actions allow them to operate with no visible emissions. They meet the requirements of 40 CFR 61.154 (c) by covering the asbestos waste with at least 6 inches of non-asbestos material at the end of the operating day. However, they also have natural barriers (perimeter berms) along the south property and a secure perimeter fence around the entire property. Access gates are locked or manned by personnel or contractors in order to prevent unauthorized access. They also have warning signs".

IV. DESIGN/EQUIPMENT PARAMETER(S) – Not Applicable
IV.1 and IV.2 – These conditions seem to refer to gas collection devices in MSW cells that controlled the gas production areas and how the area of asbestos should be excluded from collection.
"The regulations cited under IV.1 and IV.2 are not applicable because of the decommissioning authorization. In addition, the regulations seem to apply to MSW and not to the current active landfill, which is a hazardous/no-hazardous waste landfill. Furthermore, most if not all the MSW cells were closed prior to the promulgation of the cited regulation".

V. TESTING/SAMPLING – Not applicable
VI. MONITORING/RECORDKEEPING – In Compliance
Records shall be maintained on file for a period of 5 years.
VI.1 - For all asbestos-containing waste material received, the permittee of the active waste disposal site shall:

a. Maintain waste shipment records that include the following information:
i. The name, address, and telephone number of the waste generator.
ii. The name, address, and telephone number of the transporter(s).
iii. The quantity of the asbestos-containing waste material in cubic meters (cubic yards).
iv. Report in writing, by the following working day, the presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program (for the waste generator and for the disposal site). Submit a copy of the waste shipment record along with the report.
v. The date of the receipt.

Records pertaining to the handling and tracking of the asbestos-containing material were requested on 6/9/2021.
Their treatment and disposal permits require shipping documents/records for all waste received. Also, because asbestos is considered a DOT hazardous material, and transporters must have a shipping document., most waste accepted comes in on a hazardous waste manifest. However, asbestos-containing materials can also be shipped on a non-hazardous manifest or bill of lading. These documents include all the information cited on SC V.1.a. An example of a waste shipment record for a waste received on 2/18/2021 was provided on 6/9/2021.
The individual electronic receipts are tied to the generator and transporter information and the volume received is recorded there. The shipping documents are also scanned into the receipt.

With respect to condition VI.1.a.iv, the facility reported that they have not had any improperly enclosed or uncovered asbestos waste.

b. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.

When a waste stream arrives, they sign off on the receipt of the material on the shipping document. In most cases the documents are carbon-copied so a copy goes to the transporter, and another goes to the generator. This typically happens within a week or two of receipt, so they do not come close to the 30-day mark.
Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or EPA Regional office responsible for administering the asbestos NESHAP program for the

waste generator (identified in the waste shipment record)
Quantity discrepancies are common as most generators are estimating the weights because they do not have access to a scale. However, when these discrepancies do occur, they are able to reconcile them with the generators prior to 15 days. Therefore, they have not had any 15-day notifications within the last 5 years.

VI.2 and VI.3 - The permittee shall maintain, until closure, records of the location, depth and area, and quantity in cubic meters (cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area storage. The permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste and nonproductive areas excluded from collection.

The cited requirements are also required by the permits issued by the EGLE Materials Management Division. The coordinates of the active waste disposal face (area in within the landfill in which waste is placed) are tracked via GPS coordinates/survey of the disposal area. The waste receipt records track what is disposed of within that day. When combined, the two pieces of information allows them to locate the asbestos waste within the landfill. On 6/10/2021, WDI provided via email an example of an aerial map showing a daily survey record for waste disposed on 1/4/2021 at MC VI-B, E, and G.

VII. REPORTING – In Compliance
VII. 1 to VII.3 – Semiannual and annual certification reports were submitted for ROP Section 3 and no deviations for EUASBESTOS were reported in year 2020. Refer to ROP Section 1 for details of dates of submittals.
VII.4 - The permittee shall submit to the AQD District Supervisor, upon closure of the facility, a copy of records of asbestos waste disposal locations and quantities.
Not- Applicable. The facility is currently operating.
VII.5 - The permittee shall furnish upon request and make available during normal business hours for inspection by the AQD, all records required by 40 CFR Part 61.
Some examples of records were requested and were provided.
VII.6 - Notify the AQD Detroit District Office in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. The notice shall include the information listed on SC VII.6 a. – d.
The facility has not excavated or disturbed asbestos-containing waste material that have been already deposited and covered at a waste disposal site.

VIII. STACK/VENT RESTRICTION(S) - Not Applicable
Not applicable.

6. COMPLIANCE DETERMINATION
Based upon the on-site inspections and the review of the monitoring/reporting records and semiannual reports for year 2020, the facility appears to be in substantial

compliance with the special conditions and requirements cited on the ROP No. MI-ROP-M4782-2010a as well as the federal applicable requirements evaluated during this inspection.

The following is a summary of the items that were discussed during this inspection and need to be reevaluated during the ROP renewal process:

- FGRULE290 (EUDRUMSTORAGE)
Reevaluate this flexible group and the asociated emissions to determine if a permit is required
- FGTMTFACILITY (Waste Consolidation Room)
Verify if this type of operation could generate air emissions requiring a permit to install or if it qualifies for a permit exemption.
- ROP MINOR MODIFICATION and ROP RENEWAL
Evaluate if applying for a ROP minor modification to remove Section 2 and Section 3 (except for EUASBESTOS) from the current ROP is something that US Ecology wants to pursue.
- FGLIQWASTETKS
Re-evaluate if the tanks are subject to Subpart Kb.
- VERTICAL TANKS #21, #23, #25 and #27
Determine is the cited tanks are exempt from Rule 201 requirements
- INDIRECT PROCESS HEATER AT THE TANK FARM
Determine if the heaters are subject to the boiler MACT

NAME Nazaret Sandoval DATE 8/20/2020 SUPERVISOR JK