

**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AIR QUALITY DIVISION**

July 31, 2014

**PERMIT TO INSTALL
107-14**

**ISSUED TO
Michigan Disposal, Inc.**

**LOCATED AT
49350 North I-94 Service Drive
Belleville, Michigan**

**IN THE COUNTY OF
Wayne**

**STATE REGISTRATION NUMBER
M4782**

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environmental Quality. This permit is hereby issued in accordance with and subject to Section 5505(1) of Article II, Chapter I, Part 55, Air Pollution Control, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. Pursuant to Air Pollution Control Rule 336.1201(1), this permit constitutes the permittee's authority to install the identified emission unit(s) in accordance with all administrative rules of the Department and the attached conditions. Operation of the emission unit(s) identified in this Permit to Install is allowed pursuant to Rule 336.1201(6).

DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203:

July 31, 2014

DATE PERMIT TO INSTALL APPROVED:

July 31, 2014

SIGNATURE:

DATE PERMIT VOIDED:

SIGNATURE:

DATE PERMIT REVOKED:

SIGNATURE:

Common Abbreviations / Acronyms

Common Acronyms		Pollutant / Measurement Abbreviations	
AQD	Air Quality Division	BTU	British Thermal Unit
BACT	Best Available Control Technology	°C	Degrees Celsius
CAA	Clean Air Act	CO	Carbon Monoxide
CEM	Continuous Emission Monitoring	dscf	Dry standard cubic foot
CFR	Code of Federal Regulations	dscm	Dry standard cubic meter
CO ₂ e	Carbon Dioxide Equivalent	°F	Degrees Fahrenheit
COM	Continuous Opacity Monitoring	gr	Grains
EPA	Environmental Protection Agency	Hg	Mercury
EU	Emission Unit	hr	Hour
FG	Flexible Group	H ₂ S	Hydrogen Sulfide
GACS	Gallon of Applied Coating Solids	hp	Horsepower
GC	General Condition	lb	Pound
GHGs	Greenhouse Gases	kW	Kilowatt
HAP	Hazardous Air Pollutant	m	Meter
HVLP	High Volume Low Pressure *	mg	Milligram
ID	Identification	mm	Millimeter
LAER	Lowest Achievable Emission Rate	MM	Million
MACT	Maximum Achievable Control Technology	MW	Megawatts
MAERS	Michigan Air Emissions Reporting System	ng	Nanogram
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality (Department)	PM	Particulate Matter
MSDS	Material Safety Data Sheet	PM10	PM with aerodynamic diameter ≤10 microns
NESHAP	National Emission Standard for Hazardous Air Pollutants	PM2.5	PM with aerodynamic diameter ≤ 2.5 microns
NSPS	New Source Performance Standards	pph	Pounds per hour
NSR	New Source Review	ppm	Parts per million
PS	Performance Specification	ppmv	Parts per million by volume
PSD	Prevention of Significant Deterioration	ppmw	Parts per million by weight
PTE	Permanent Total Enclosure	psia	Pounds per square inch absolute
PTI	Permit to Install	psig	Pounds per square inch gauge
RACT	Reasonably Available Control Technology	scf	Standard cubic feet
ROP	Renewable Operating Permit	sec	Seconds
SC	Special Condition	SO ₂	Sulfur Dioxide
SCR	Selective Catalytic Reduction	THC	Total Hydrocarbons
SRN	State Registration Number	tpy	Tons per year
TAC	Toxic Air Contaminant	µg	Microgram
TEQ	Toxicity Equivalence Quotient	VOC	Volatile Organic Compound
VE	Visible Emissions	yr	Year

* For High Volume Low Pressure (HVLP) applicators, the pressure measured at the HVLP gun air cap shall not exceed ten (10) pounds per square inch gauge (psig).

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, or modified, unless a Permit to Install authorizing such action is issued by the Department, except to the extent such action is exempt from the Permit to Install requirements by any applicable rule. **(R 336.1201(1))**
2. If the installation, construction, reconstruction, relocation, or modification of the equipment for which this permit has been approved has not commenced within 18 months, or has been interrupted for 18 months, this permit shall become void unless otherwise authorized by the Department. Furthermore, the permittee or the designated authorized agent shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, P.O. Box 30260, Lansing, Michigan 48909-7760, if it is decided not to pursue the installation, construction, reconstruction, relocation, or modification of the equipment allowed by this Permit to Install. **(R 336.1201(4))**
3. If this Permit to Install is issued for a process or process equipment located at a stationary source that is not subject to the Renewable Operating Permit program requirements pursuant to R 336.1210, operation of the process or process equipment is allowed by this permit if the equipment performs in accordance with the terms and conditions of this Permit to Install. **(R 336.1201(6)(b))**
4. The Department may, after notice and opportunity for a hearing, revoke this Permit to Install if evidence indicates the process or process equipment is not performing in accordance with the terms and conditions of this permit or is violating the Department's rules or the Clean Air Act. **(R 336.1201(8), Section 5510 of Act 451, PA 1994)**
5. The terms and conditions of this Permit to Install shall apply to any person or legal entity that now or hereafter owns or operates the process or process equipment at the location authorized by this Permit to Install. If the new owner or operator submits a written request to the Department pursuant to R 336.1219 and the Department approves the request, this permit will be amended to reflect the change of ownership or operational control. The request must include all of the information required by subrules (1)(a), (b), and (c) of R 336.1219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **(R 336.1219)**
6. Operation of this equipment shall not result in the emission of an air contaminant which causes injurious effects to human health or safety, animal life, plant life of significant economic value, or property, or which causes unreasonable interference with the comfortable enjoyment of life and property. **(R 336.1901)**
7. The permittee shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant which continue for more than one hour in excess of any applicable standard or limitation, or emissions of any air contaminant continuing for more than two hours in excess of an applicable standard or limitation, as required in Rule 912, to the Department. The notice shall be provided not later than two business days after start-up, shutdown, or discovery of the abnormal condition or malfunction. Written reports, if required, must be filed with the Department within 10 days after the start-up or shutdown occurred, within 10 days after the abnormal conditions or malfunction has been corrected, or within 30 days of discovery of the abnormal condition or malfunction, whichever is first. The written reports shall include all of the information required in Rule 912(5). **(R 336.1912)**
8. Approval of this permit does not exempt the permittee from complying with any future applicable requirements which may be promulgated under Part 55 of 1994 PA 451, as amended or the Federal Clean Air Act.
9. Approval of this permit does not obviate the necessity of obtaining such permits or approvals from other units of government as required by law.
10. Operation of this equipment may be subject to other requirements of Part 55 of 1994 PA 451, as amended and the rules promulgated thereunder.

11. Except as provided in subrules (2) and (3) or unless the special conditions of the Permit to Install include an alternate opacity limit established pursuant to subrule (4) of R 336.1301, the permittee shall not cause or permit to be discharged into the outer air from a process or process equipment a visible emission of density greater than the most stringent of the following. The grading of visible emissions shall be determined in accordance with R 336.1303. **(R 336.1301)**
 - a) A six-minute average of 20 percent opacity, except for one six-minute average per hour of not more than 27 percent opacity.
 - b) A visible emission limit specified by an applicable federal new source performance standard.
 - c) A visible emission limit specified as a condition of this Permit to Install.

12. Collected air contaminants shall be removed as necessary to maintain the equipment at the required operating efficiency. The collection and disposal of air contaminants shall be performed in a manner so as to minimize the introduction of contaminants to the outer air. Transport of collected air contaminants in Priority I and II areas requires the use of material handling methods specified in R 336.1370(2). **(R 336.1370)**

13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R 336.2001 and R 336.2003, under any of the conditions listed in R 336.2001. **(R 336.2001)**

SPECIAL CONDITIONS

EMISSION UNIT SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Emission Unit ID	Emission Unit Description (Process Equipment & Control Devices)	Installation Date / Modification Date	Flexible Group ID
EUPUGMILL2	Pugmill 2, used to convey material to the west side waste treatment process, controlled by a baghouse dust collector. This process does not treat waste subject to 40 CFR §63 Subpart DD.	7/1/91	FG_WEST FGTMTFACILITY
EUSLUDGETANK11	40,000 gallon sludge tank (Tank 11), located in the west side waste treatment building. Controlled by a baghouse dust collector.	7/1/91	FG_WEST FGTMTFACILITY
EUSTORAGETANK2	Waste storage and treatment tanks A, B, C, and D located in the west side waste treatment building. Controlled by a baghouse dust collector.	7/1/91-6/1/97	FG_WEST FGTMTFACILITY
Changes to the equipment described in this table are subject to the requirements of R 336.1201, except as allowed by R 336.1278 to R 336.1290.			

FLEXIBLE GROUP SUMMARY TABLE

The descriptions provided below are for informational purposes and do not constitute enforceable conditions.

Flexible Group ID	Flexible Group Description	Associated Emission Unit IDs
FG_WEST	West side waste treatment process consisting of pugmill2, sludge tank 11, and waste treatment tanks A, B, C, and D. Controlled by a baghouse dust collector. This process does not treat waste subject to 40 CFR Part 63 Subpart DD.	EUPUGMILL2 EUSLUDGETANK11 EUSTORAGETANK2

The following conditions apply to: FG WEST

DESCRIPTION: West side waste treatment process consisting of pugmill 2, sludge tank 11, and waste treatment tanks A, B, C, and D. This process treats low VOC waste (average VOC content less than 500 ppm).

Emission Units: EUPUGMILL2, EU SLUDGETANK11, EUSTORAGETANK2

POLLUTION CONTROL EQUIPMENT: Baghouse dust collector.

I. EMISSION LIMITS

Pollutant	Limit	Time Period/ Operating Scenario	Equipment	Testing / Monitoring Method	Underlying Applicable Requirements
1. VOC	22.85 lb/hr ²	Per SC VI.6	FG_WEST	SC VI.5, VI.6, VI.8/ V.1 Appendix 7A-S1 of MI-ROP-M4782-2010a	R 336.1225
2. VOC	40.2 tpy ²	12-month rolling time period*			R 336.1702(a)
3. Methylene Chloride	14.92 lb/hr ¹	Per SC VI.6	FG_WEST	SC VI.5, VI.6/ V.1	R 336.1225
4. Benzene	0.71 lb/hr ¹				
5. 1,1,2,2-Tetrachloroethane	0.16 lb/hr ¹				
6. Carbon Tetrachloride	0.28 lb/hr ¹				
7. Chloroform	3.02 lb/hr ¹				
8. Trichloroethene	4.52 lb/hr ¹				
9. Tetrachloroethylene	12.7 lb/hr ¹				
10. PM	0.028 lb per 1,000 lbs of exhaust air ²	Per SC VI.6	FG_WEST	SC VI.1, VI.2, VI.4, VI.6/ V.3, V.4 Appendix 7B-S1 of MI-ROP-M4782-2010a	R 336.1331(c)

* Tons per year (tpy) shall be based upon a 12-month rolling time period as determined at the end of each calendar month.

II. MATERIAL LIMITS

Material	Limit	Time Period/ Operating Scenario	Equipment	Monitoring/ Testing Method	Underlying Applicable Requirements
1. VOC in waste	Maximum of 500 ppm ²	Monthly average	FG_WEST	SC VI.5b	R 336.1225 R 336.1702(a)
2. VOC in waste	Maximum of 0.5% by weight ²	Daily average for waste accepted for treatment	FG_WEST	SC VI.5c	
3. VOC	VOC evaporation rate from the waste treatment process shall not exceed 60% by weight. ²	Per SC V.2	FG_WEST	SC V.2	
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 ²	Annual average per off-site material stream	FG_WEST	SC VI.9, VI.10	40 CFR Part 63 Subparts A and DD

III. PROCESS/OPERATIONAL RESTRICTIONS

1. The permittee shall maintain the air flow through FG_WEST within the range specified in the following table during normal operation:

Parameter	Limit (cfm)
minimum air flow rate	80,000
maximum air flow rate	110,000

For purposes of this condition, normal operation is defined as:

- a) material in any waste treatment/storage tank is uncovered or has been covered less than two hours;
- b) the pug mill is operating or has been operating in the last two hours;
- c) any period when material is being placed in or removed from EUSLUDGETANK11;
- d) any period when waste is being charged into or discharged from a waste treatment/storage tank, or has been within the last two hours.

(R 336.1201(1)(a), R 336.1213(2), R 336.1225, R 336.1331, R 336.1702(a))

- 2. The permittee shall operate the baghouse dust collector 24 hours a day and maintain negative static pressure in the waste treatment building (pugmill and waste treatment/holding tanks) at all times during normal operation, as defined above in special condition III.1.² **(R 336.1225, R 336.1331, R 336.1910)**
- 3. The permittee shall maintain the pressure drop of the FG_WEST baghouse dust collector between 1.5 and 8 inches of water column.² **(R 336.1205(3), R 336.1225, R 336.1331, R 336.1910)**
- 4. The permittee shall not have more than one waste treatment process building overhead door open at a time.² **(R 336.1225, R 336.1331, R 336.1910)**
- 5. The permittee shall not process waste streams subject to the control requirements in 40 CFR 61.342(c)(1) of the National Emission Standard for Benzene Waste Operations (40 CFR Part 61 Subpart FF) in FG_WEST.² **(40 CFR Part 61 Subpart FF)**
- 6. The permittee shall not process waste streams containing the following compounds. The permittee may add new compounds to the following list with a notification to the AQD. The AQD may also amend the list.¹ **(R 336.1901)**

Benzylamine	Dimethylamine	Methylamine	Trimethylamine
2-Butanethiol	Butyric acid	Diethyl sulfide	Dimethyl sulfide
Diisobutyl ketone	Ethanethiol	Methanethiol	Tetramethylammonium chloride
Thioglycolic acid	Thionyl chloride	Thiram	Mercaptans

IV. DESIGN/EQUIPMENT PARAMETERS

1. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the air flow from FG_WEST on a continuous basis and record five minute block averages of the monitored air flow. **(R 336.1213(3))**
2. The permittee shall install, calibrate, maintain and operate in a satisfactory manner a device to monitor the pressure drop of the treatment building baghouse dust collector on a continuous basis and record five minute block averages of the monitored pressure drop.² **(R 336.1205(3),R 336.1225, R 336.1331, R 336.1910, 40 CFR §64.7(b))**
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.² **(R 336.1225, R 336.1331, R 336.1910)**
4. Sludge feed and storage tank No. 11 (EUSLUDGETANK11) shall be vented into the FG_WEST waste treatment process building.¹ **(R 336.1225)**

V. TESTING/SAMPLING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The VOC evaporation rate from the waste treatment process may be established at 60% by weight pursuant to "Air/Superfund National Technical Guidance, Study Series, Emission Factors for Superfund Remediation Technologies," EPA-450/1-901-001, March 1991, for calculation and compliance demonstration. The permittee may use site specific data, based on testing, with the approval of the AQD District Supervisor, to establish an alternate evaporation rate. **(R 336.1225, R 336.1702(a), R 336.1910)**
2. The permittee shall screen each waste stream for the compounds listed in SC III.7, using a method acceptable to the AQD District Supervisor.¹ **(R 336.1901)**
3. Verification of the negative static pressure in the waste treatment building by testing, at owner's expense, in accordance with Department requirements, will be required for operating approval. The negative static pressure in the waste treatment building shall be determined by using smoke tubes, or an alternative method as approved by the AQD, and by visual observation of the air movement and direction. Alternative testing procedures and associated operational parameters must have prior approval by the AQD District Supervisor. The permittee shall conduct the verification tests at least once every year and shall notify the department prior to conducting the tests. Any request for a change in the testing frequency must be submitted to the AQD District Supervisor for review and approval. **(R 336.1225, R 336.1331, R336.2001, R336.2003)**

VI. MONITORING/RECORDKEEPING

Records shall be maintained on file for a period of five years. **(R 336.1201(3))**

1. The permittee shall monitor the air flow from FG_WEST on a continuous basis and record five minute block averages of the monitored air flow. **(R 336.1213(3))**
2. The permittee shall monitor the pressure drop of the FG_WEST baghouse dust collector on a continuous basis and record five minute block averages of the monitored pressure drop. The permittee shall record any pressure drop excursions from the range specified in special condition III.4.² **(R 336.1205(3),R 336.1225, R 336.1331, R 336.1910, 40 CFR §64.6(c)(1))**

3. The permittee shall maintain a written log for activities conducted pursuant to the "Preventive Maintenance and Malfunction Abatement Program, Air Pollution Control Systems." The written log shall indicate the following:
 - a. **Date, time and duration of baghouse downtime.²**
 - b. **Date and description of maintenance performed on the baghouse.²**
 - c. **Date and description of repairs performed on the baghouse.²****(R 336.1225, R 336.1910, 40 CFR §64.7(b) and (d))**

4. On a monthly basis, the permittee shall maintain the following records for FG_WEST:
 - a. PM concentration in pounds per thousand pounds of exhaust gas according to the method outlined in Appendix 7B-S1 of MI-ROP-M4782-2010a.²
 - b. Hourly PM-10 emission rate according to the method outlined in Appendix 7B-S1 of MI-ROP-M4782-2010a.¹
 - c. Monthly and 12-month rolling total PM-10 emissions according to the method outlined in Appendix 7B of MI-ROP-M4782-2010a-S1;²**(R 336.1205(3), R 336.1225, R 336.1331)**

5. The permittee shall maintain the following records for FG_WEST:
 - a. The volume of each waste stream treated; monthly record.²
 - b. VOC content in parts per million (ppm) and/or percent by weight present in each waste stream prior to treatment, based on generator information; daily record.²
 - c. Average daily VOC content (% by weight) of waste streams; daily record.
 - d. Monthly and 12-month rolling total VOC emissions according to the method outlined in Appendix 7A-S1 of MI-ROP-M4782-2010a; monthly record.²**(R 336.1213(3), R 336.1225, R 336.1702(a))**

6. The permittee shall calculate and record the VOC, PM and PM-10 emissions from FG_WEST according to the method outlined in Appendix 7-S1 of MI-ROP-M4782-2010a unless a replacement method acceptable to the AQD has been submitted and approved.² **(R 336.1205(3), R 336.1225, R 336.1331, R 336.1702(a))**

7. The permittee shall prepare a monthly report summarizing the amount and VOC concentration (in ppm) of each waste stream treated, and the total VOC input (in pounds) to FG_WEST in order to monitor the cumulative VOC emissions for the preceding 12 months; monthly record.² **(R 336.1213(3), R 336.1225, R 336.1702(a))**

8. The permittee shall perform 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 is treated in FG_WEST. Thereafter, the permittee shall review and update, as necessary, this determination at least once every 12 months following the date of the initial VOHAP determination.² **(40 CFR Part 63 Subpart DD)**

9. The permittee shall keep, in a satisfactory manner, records of the VOHAP concentration of each off-site material stream, as defined in 40 CFR Part 63 Subpart DD, processed in FG_WEST for each month and 12-month rolling time period.² **(40 CFR Part 63 Subpart DD)**

10. The permittee shall maintain records for each waste stream treated in FG_WEST sufficient to demonstrate that the waste was not subject to the control requirements of the National Emission Standard for Benzene Waste Operations, 40 CFR Part 61 Subpart FF. **(40 CFR Part 61 Subpart FF)**

11. The permittee shall develop a written operating procedure to assure that the requirements of 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. The permittee shall maintain records, including 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. **(R 336.1213(3), R 336.1225, R 336.1331, R 336.1702(a))**

12. Upon detecting an excursion or exceedance through the parametric monitoring of the pressure drop, the permittee shall 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. **(40 CFR 64.7(d))**

See Appendix 7-S1 of MI-ROP-M4782-2010a

VII. REPORTING

1. The permittee shall submit, on a semi-annual basis, the monthly report summarizing the amount of waste treated, the VOC concentration and the total VOC input in order to monitor the cumulative VOC emissions for the preceding 12 months.² **(R 336.1225, R 336.1702(a))**
2. Each semiannual report of monitoring deviations shall include 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, then this report shall include a statement that there were no excursions and/or exceedances. **(40 CFR §64.9(a)(2)(i))**
3. Each semiannual report of monitoring deviations shall include summary information on monitor downtime. If there were no periods of monitor downtime in the reporting period, then this report shall include a statement that there were no periods of monitor downtime. **(40 CFR §64.9(a)(2)(ii))**

See Appendix 8-S1 of MI-ROP-M4782-2010a

VIII. STACK/VENT RESTRICTIONS

The exhaust gases from the stacks listed in the table below shall be discharged unobstructed vertically upwards to the ambient air unless otherwise noted:

Stack & Vent ID	Maximum Exhaust Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVWEST	54 ¹	75 ¹	R 336.1225

IX. OTHER REQUIREMENTS

1. The permittee shall comply with all applicable provisions of the National Emission Standards for Benzene Waste Operations as specified in 40 CFR Part 61 Subparts A and FF. **(40 CFR Part 61 Subparts A & FF)**
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 §61, Subpart M.² **(40 CFR Part 61 Subpart M)**
3. The permittee shall comply with all 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. **(R 336.1213(2), 40 CFR Part 63 Subparts A & DD)**
4. The permittee shall implement the "Preventive Maintenance and Malfunction Abatement Program, Air Pollution Control Systems." This plan shall be made available to the Department upon request.² **(R 336.1213(2), R 336.1225, R 336.1331, R 336.1910, 40 CFR §64.6(c)(2))**
5. The permittee shall notify the appropriate District Office of the AQD for the need to modify the CAM plan if the approved monitoring is found to be inadequate and shall submit a proposed modification to the plan if appropriate. **(40 CFR §64.7(e))**

6. The permittee shall comply with all requirements of 40 CFR Part 64, Compliance Assurance Monitoring.
(40 CFR Part 64)

Footnotes:

¹This condition is state-only enforceable and was established pursuant to Rule 201(1)(b).

²This condition is federally enforceable and was established pursuant to Rule 201(1)(a).