

**MICHIGAN DEPARTMENT OF ENVIRONMENT, GREAT LAKES, AND ENERGY
AIR QUALITY DIVISION**

March 29, 2024

PERMIT TO INSTALL
36-24

ISSUED TO
City of Midland Municipal Solid Waste Facility

LOCATED AT
4311 East Ashman Street
Midland, Michigan 48642

IN THE COUNTY OF
Midland

STATE REGISTRATION NUMBER
N6004

The Air Quality Division has approved this Permit to Install, pursuant to the delegation of authority from the Michigan Department of Environment, Great Lakes, and Energy. 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: February 2, 2024	
DATE PERMIT TO INSTALL APPROVED: March 29, 2024	SIGNATURE:
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

PERMIT TO INSTALL

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COMMON ACRONYMS

AQD	Air Quality Division
BACT	Best Available Control Technology
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
COMS	Continuous Opacity Monitoring System
Department/department/EGLE	Michigan Department of Environment, Great Lakes, and Energy
EU	Emission Unit
FG	Flexible Group
GACS	Gallons of Applied Coating Solids
GC	General Condition
GHGs	Greenhouse Gases
HVLP	High Volume Low Pressure*
ID	Identification
IRSL	Initial Risk Screening Level
ITSL	Initial Threshold Screening Level
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
MAERS	Michigan Air Emissions Reporting System
MAP	Malfunction Abatement Plan
MSDS	Material Safety Data Sheet
NA	Not Applicable
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NSPS	New Source Performance Standards
NSR	New Source Review
PS	Performance Specification
PSD	Prevention of Significant Deterioration
PTE	Permanent Total Enclosure
PTI	Permit to Install
RACT	Reasonable Available Control Technology
ROP	Renewable Operating Permit
SC	Special Condition
SCR	Selective Catalytic Reduction
SNCR	Selective Non-Catalytic Reduction
SRN	State Registration Number
TBD	To Be Determined
TEQ	Toxicity Equivalence Quotient
USEPA/EPA	United States Environmental Protection Agency
VE	Visible Emissions

*For HVLP applicators, the pressure measured at the gun air cap shall not exceed 10 psig.

POLLUTANT / MEASUREMENT ABBREVIATIONS

acfm	Actual cubic feet per minute
BTU	British Thermal Unit
°C	Degrees Celsius
CO	Carbon Monoxide
CO ₂ e	Carbon Dioxide Equivalent
dscf	Dry standard cubic foot
dscm	Dry standard cubic meter
°F	Degrees Fahrenheit
gr	Grains
HAP	Hazardous Air Pollutant
Hg	Mercury
hr	Hour
HP	Horsepower
H ₂ S	Hydrogen Sulfide
kW	Kilowatt
lb	Pound
m	Meter
mg	Milligram
mm	Millimeter
MM	Million
MW	Megawatts
NMOC	Non-Methane Organic Compounds
NO _x	Oxides of Nitrogen
ng	Nanogram
PM	Particulate Matter
PM10	Particulate Matter equal to or less than 10 microns in diameter
PM2.5	Particulate Matter equal to or less than 2.5 microns in diameter
pph	Pounds per hour
ppm	Parts per million
ppmv	Parts per million by volume
ppmw	Parts per million by weight
psia	Pounds per square inch absolute
psig	Pounds per square inch gauge
scf	Standard cubic feet
sec	Seconds
SO ₂	Sulfur Dioxide
TAC	Toxic Air Contaminant
Temp	Temperature
THC	Total Hydrocarbons
tpy	Tons per year
µg	Microgram
µm	Micrometer or Micron
VOC	Volatile Organic Compounds
yr	Year

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 Environment, Great Lakes, and Energy, 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 Rule 210 (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 Rule 219 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 Rule 219 and shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environment, Great Lakes, and Energy. **(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 condition 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 Rule 301, 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 Rule 303 (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 Rule 370(2). **(R 336.1370)**
13. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with Rule 1001 and Rule 1003, under any of the conditions listed in Rule 1001. **(R 336.2001)**

EMISSION UNIT 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 (Including Process Equipment & Control Device(s))	Installation Date / Modification Date	Flexible Group ID
EU-FURNACE2	Clean Energy CE-250 used oil furnace (with atomizing burner) rated at 245,000 BTU/hr heat input and 1.7 gallons of oil per hour fuel usage.	TBD	NA

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 336.1291.

EU-FURNACE2 EMISSION UNIT CONDITIONS

DESCRIPTION

Clean Energy CE-250 used oil furnace (with atomizing burner) rated at 245,000 BTU/hr heat input and 1.7 gallons of oil per hour fuel usage.

Flexible Group ID: NA.

POLLUTION CONTROL EQUIPMENT

NA

I. EMISSION LIMIT(S)

NA

II. MATERIAL LIMIT(S)

1. The permittee shall not burn any fuel in any unit in EU-FURNACE2 other than those listed below.
 - a) No. 1 virgin fuel oil
 - b) No. 2 virgin fuel oil
 - c) Used oil (including crankcase, hydraulic, and transmission oils) with properties that do not exceed the standards specified in Appendix A. "Used oil" is any oil that has been refined from crude oil, or any synthetic oil, that has been used and as result of such use is contaminated by physical or chemical impurities as defined in 40 CFR 279.1. This includes used oil generated by the permittee, household "do-it-yourselfer", and from used oil collection centers. **(R 336.1224, R 336.1225, 40 CFR 279.11, 40 CFR 279.23)**

III. PROCESS/OPERATIONAL RESTRICTION(S)

1. The permittee shall not operate EU-FURNACE2 unless the Compliance Monitoring Plan (CMP) for Used Oil specified in Appendix A, or an alternate plan approved by the AQD District Supervisor, is implemented and maintained. **(R 336.1225, R 336.1911, Act 451 324.5521, 40 CFR 279)**
2. The permittee shall not burn waste oil or used oil fuel in EU-FURNACE2 unless such waste oil or used oil fuel is pretreated (e.g. sedimentation, filtration, etc.) to reduce water and sediment. **(R 336.1224, R 336.1331)**

IV. DESIGN/EQUIPMENT PARAMETER(S)

NA

V. TESTING/SAMPLING

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

1. Within 60 days after written notification from the AQD District Supervisor, the permittee shall submit a used oil fuel analysis. **(R 336.1224, R 336.1225, 40 CFR 279.21(b), 40 CFR 279.23)**

VI. MONITORING/RECORDKEEPING

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

1. The permittee shall keep the following records for each calendar month that EU-FURNACE2 is operated:
 - a) Identification, type, and the amounts (in gallons) of all fuels combusted;
 - b) Sulfur content (percent by weight), flash point, and higher heating value (BTU/lb) of all used oils being combusted;

- c) The amount, date, generator name, and generator location of any used oil collected from off-site locations;
- d) The total halogen content of all used oil collected from off-site locations;
- e) All records required in Appendix A, "Compliance Monitoring Plan for Used Oil";
- f) For facilities that are permitted to burn used oil, determine and compute within 10 days following the end of each calendar month, for the preceding twelve months, the fuel consumption rate in gallons.

The permittee shall keep all records on file at the facility for at least five years and make them available to the Department upon request. (R 336.1224, R 336.1225, R 336.1301, 40 CFR 279.11, 40 CFR 279.23)

- 2. The permittee shall maintain documentation from the manufacturer or vendor stating the heat input rate, burner type, and maximum fuel usage rate. The permittee shall keep records on file at the facility and make them available to the Department upon request. (R 336.1224, R 336.1225, 40 CFR 279.23)

VII. REPORTING

NA

VIII. STACK/VENT RESTRICTION(S)

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 Diameter / Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SVFURNACE2	8	30	R 336.1225

IX. OTHER REQUIREMENT(S)

NA

Footnotes:

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

APPENDIX A

The following monitoring procedures, methods, or specifications are the details to the monitoring requirements identified and referenced in EU-FURNACE2.

COMPLIANCE MONITORING PLAN (CMP) FOR FACILITIES BURNING USED OIL

A. All used oil must be acceptable for use as a fuel under federal and state used oil regulations. An analysis must be available for each new batch-and must be kept on file.

Each new batch of used oil must be documented demonstrating that the used oil meets specification levels in 40 CFR 279.11 (Standards for the Management of Used Oil) and R 299.9809, promulgated pursuant to Part 111, Hazardous Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended. On an annual basis, samples of oil aggregated in on-site tanks shall be sent to the laboratory and analytical data shall be obtained for the parameters listed in Table 1 below. The documentation shall include permittee certification and analytical data, both of which are for used oil generated within the most recent 12-month period. The analysis must be for the batch of used oil accepted for use as a fuel by the permittee. A batch is a quantity of used oil contained in one storage unit (i.e., tank, tanker truck, barge, etc.) where no additional oil is put into the storage unit after testing. If additional used oil is added to a storage unit after testing, a new batch has been created.

The analysis shall be reviewed by the permittee to ensure that the used oil properties and constituents do not exceed any of the used oil specifications contained in the following table prior to burning in EU-FURNACE2.

TABLE 1 - ALLOWABLE LEVELS FOR USED OIL

Property/Constituent	Allowable Level
Higher Heating Value	17,000 BTU per pound (minimum)
Arsenic	5.0 ppmw (maximum)
Cadmium	2.0 ppmw (maximum)
Chromium	10.0 ppmw (maximum)
Lead	100.0 ppmw (maximum)
Sulfur	1.0 percent (maximum)
Polychlorinated Biphenyls (PCBs)	1.0 ppmw (maximum)
Total Halogens	4,000 ppmw (maximum)
Flash Point	100°F (minimum)

Verification: Analysis records for each batch shall be maintained for a minimum of five years.