# MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY AIR QUALITY DIVISION

March 23, 2011

PERMIT TO INSTALL 39-11

ISSUED TO
City of Escanaba

LOCATED AT 1715 Sheridan Road Escanaba, Michigan

IN THE COUNTY OF Delta

FRIS PENINSULA

## STATE REGISTRATION NUMBER P0225

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:  March 7, 2011		
DATE PERMIT TO INSTALL APPROVED:  March 23, 2011	SIGNATURE:	
DATE PERMIT VOIDED:	SIGNATURE:	
DATE PERMIT REVOKED:	SIGNATURE:	

## **PERMIT TO INSTALL**

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## **Common Abbreviations / Acronyms**

Common Acronyms		Pollutant/Measurement Abbreviations		
AQD	Air Quality Division	BTU	British Thermal Unit	
ANSI	American National Standards Institute	°C	Degrees Celsius	
BACT	Best Available Control Technology	co	Carbon Monoxide	
CAA	Clean Air Act	dscf	Dry standard cubic foot	
CEM	Continuous Emission Monitoring	dscm	Dry standard cubic meter	
CFR	Code of Federal Regulations	°F	Degrees Fahrenheit	
COM	Continuous Opacity Monitoring	gr	Grains	
EPA	Environmental Protection Agency	Hg	Mercury	
EU	Emission Unit	hr	Hour	
FG	Flexible Group	H <sub>2</sub> S	Hydrogen Sulfide	
GACS	Gallon of Applied Coating Solids	hp	Horsepower	
GC	General Condition	lb	Pound	
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	
MIOSHA	Michigan Occupational Safety & Health Administration	PM10	PM less than or equal to 10 microns diameter	
MSDS	Material Safety Data Sheet	PM2.5	PM less than or equal 2.5 microns diameter	
NESHAP	National Emission Standard for Hazardous Air Pollutants	pph	Pound per hour	
NSPS	New Source Performance Standards	ppm	Parts per million	
NSR	New Source Review	ppmv	Parts per million by volume	
PS	Performance Specification	ppmw	Parts per million by weight	
PSD	Prevention of Significant Deterioration	psia	Pounds per square inch absolute	
PTE	Permanent Total Enclosure	psig	Pounds per square inch gauge	
PTI	Permit to Install	scf	Standard cubic feet	
RACT	Reasonably Available Control Technology	sec	Seconds	
ROP	Renewable Operating Permit	SO <sub>2</sub>	Sulfur Dioxide	
SC	Special Condition	THC	Total Hydrocarbons	
SCR	Selective Catalytic Reduction	tpy	Tons per year	
SRN	State Registration Number	μg	Microgram	
TAC	Toxic Air Contaminant	VOC	Volatile Organic Compounds	
TEQ	Toxicity Equivalence Quotient	yr	Year	
VE	Visible Emissions			

<sup>\*</sup> 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.
- 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
EU-FURNACE1	U-FURNACE1 Model CG-2500 Clean Burn Multi-oil furnace 250,000 BTU/hr heat input 1.7 gallons per hour fuel usage		N/A
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.			

## The following conditions apply to: EU-FURNACE1

**DESCRIPTION:** Multi-oil furnace, 250,000 BTU/hr heat input

Flexible Group ID: N/A

**POLLUTION CONTROL EQUIPMENT: N/A** 

#### I. EMISSION LIMITS

1. Visible Emissions from EU-FURNACE1 shall not exceed 10% opacity. (R 336.301(4))

## **II. MATERIAL LIMITS**

1. The permittee shall not burn more than 1.7 gallons of used oil per hour in EU-FURNACE1. (R 336.1224(2)(b), 40 CFR 279.23))

## III. PROCESS/OPERATIONAL RESTRICTIONS

- 1. The permittee shall not fire EU-FURNACE1 on any fuels other than No. 1 and No. 2 virgin fuel oils, or waste oil or used oil fuel that is generated by the applicant, either on-site or off-site, or by household "do-it-yourselfer" used oil generators as defined in 40 CFR 279.1, or Recycled Used Oil (RUO) that meets the standards in SC VI.2 and Appendix A. (R 336.1224(2)(b), R 336.1901, 40 CFR 279.23)
- 2. The permittee shall not fire waste oil or used oil fuel in EU-FURNACE1 unless such waste oil or used oil fuel is pretreated (i.e. sedimentation, filtration, etc.) to reduce water, sediment, and low boiling-point components. (R 336.1224(2)(b), R 336.1331, R 336.1901)

## IV. DESIGN/EQUIPMENT PARAMETERS

1. N/A

## 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 District Supervisor, Air Quality Division, the permittee shall submit a waste oil or used oil fuel analysis. (R 336.1224(2)(b), 40 CFR 279.23))
- All RUO must be acceptable for use as a fuel under federal and state used oil regulations. A certificate of analysis must accompany each delivery and must be kept on file. The allowable levels of properties and constituents of the RUO are listed in Table 1 of Appendix A of this permit. (R 336.1224(2)(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 monthly records of the usage rates of all fuels fired in EU-FURNACE1. (R 336.1224(2)(b), R336.1901, 40 CFR 279.23))

# VII. REPORTING

1. N/A

# 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 Diameter/Dimensions (inches)	Minimum Height Above Ground (feet)	Underlying Applicable Requirements
1. SV-FURNACE1	8	35	R 336.1901 R 336.2803, R 336.2804 40 CFR 52.21 (c) & (d)

# IX. OTHER REQUIREMENTS

N/A

#### **APPENDIX A**

## Recycled Used Oil (RUO) Certification

All RUO must be acceptable for use as a fuel under federal and state used oil regulations. A certificate of analysis must accompany each delivery and must be kept on file.

Each shipment from the used oil supplier must be accompanied by documentation 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. The documentation shall include supplier certification and analytical data, both of which are for oil generated within the most recent 12 month period. The analysis must be representative of the used oil accepted for use as a fuel by the permittee. Separate truckloads may have identical documentation from the supplier if they are generated by the same process from a single supplier.

The supplier certificate of analysis shall be reviewed by the permittee to ensure that the RUO properties and constituents do not exceed any of the used oil specifications contained in the following table prior to acceptance and off-loading of the shipment.

**TABLE 1 - ALLOWABLE LEVELS FOR RUO** 

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)

**Verification**: Shipping records for each load received shall be maintained a minimum of 5 years.