

SUPPLEMENT to PERMIT No. 56-01
Sumpter Energy Associates
Sumpter Township, Michigan
December 7, 2001

GENERAL CONDITIONS

1. The process or process equipment covered by this permit shall not be reconstructed, relocated, altered, 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, reconstruction, relocation, or alteration 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 person to whom this permit was issued, or the designated authorized agent, shall notify the Department via the Supervisor, Permit Section, Air Quality Division, Michigan Department of Environmental Quality, PO Box 30260, Lansing, Michigan 48909, if it is decided not to pursue the installation, reconstruction, relocation, or alteration 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. The written request 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 owner or operator of a source, process, or process equipment shall provide notice of an abnormal condition, start-up, shutdown, or malfunction that results in emissions of a hazardous or toxic air pollutant in excess of standards for more than one hour, or of any air contaminant in excess of standards for more than two hours, as required in this

- rule, to the District Supervisor, Air Quality Division. The notice shall be provided no 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 District Supervisor within 30 days, with the information required in this rule. [R 336.1912]
8. Approval of this permit does not exempt the person to whom this permit was issued from complying with any future applicable requirements which may be promulgated under Part 55 of Act 451, PA 1994 of 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 Act 451, PA 1994, 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, a person 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. Except as allowed by Rule 285 (a), (b), and (c), applicant shall not substitute any fuels, coatings, nor raw materials for those described in the application and allowed by this permit, nor make changes to the process or process equipment described in the application, without prior notification to and approval by the Air Quality Division. [R 336.1201(1)]
 14. The Department may require the applicant to conduct acceptable performance tests, at the applicant'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
December 7, 2001
(4 Special Conditions)

Emission unit identification:

Emission Unit	Emission Unit Description
EU-ICE1	first internal combustion engine
EU-ICE2	second internal combustion engine
EU-ICE3	third internal combustion engine
EU-ICE4	fourth internal combustion engine
EU-ICE5	fifth internal combustion engine
EU-ICE6	sixth internal combustion engine
EU-ICE7	seventh internal combustion engine
EU-ICE8	eighth internal combustion engine
EU-ICE9	ninth internal combustion engine
EU-ICE10	tenth internal combustion engine

Flexible group identification:

Flexible group	Flexible Group Description
FG-ICES	all 10 internal combustion engines

1. Emission rates of the following pollutants from FG-ICES shall not exceed the following pounds per hour (#/Hr) nor tons per year, (TPY) based on a 12-month rolling time period as determined at the end of each calendar month. [R336.1224, R336.1225, R336.1702, 40CFR 52.21(c) and (d)]

POLLUTANT	ACRONYM
carbon monoxide	CO
nitrogen oxides	NOx
non methane organic compounds	NMOC
hydrogen chloride	HCl

POLLUTANT	#/Hr	TPY
CO	73	320
NOx	50.4	221
NMOC	5	22
HCl	1.0	4.4

2. To demonstrate compliance with the emission limits, the permittee shall continuously monitor and record the following parameters:

- Electrical output (kw) of each generator driven by each internal combustion engine
- Hours of operation of each generator driven by each internal combustion engine
- Total flow rate of landfill gas to FG-ICES (for HCl compliance)

The permittee shall use the following equations and emission factors to calculate the emissions from FG-ICES. Records of the monitored parameters and calculations shall be kept on file for a period of at least five years and made available to the Department upon request. [R336.1201(3)]

Equations for CO, NOx and NMOC:

$$\text{EU-ICE HP} = (\text{generator output in kw}) / (0.746\text{kw/HP} * 93.9/100)$$

$$\text{\#/Hr} = \text{EU-ICE HP} * \text{\#/454g} * \text{X g/HP*Hr, where X is a factor from table below}$$

Equation for HCl:

$$\text{\#/Hr HCl} = (5.1\# \text{ HCl/MMft}^3) * (\text{ft}^3 \text{ landfill gas burned/Hr})$$

ACRONYM/SYMBOL	DESCRIPTION
HP	horsepower
g	grams
#	pounds
Hr	hour
ft3	cubic feet
MM	million
kw	kilowatts

POLLUTANT	X
CO	2.9 g/HP*Hr
NOx	2.0 g/HP*Hr
NMOC	0.2 g/HP*Hr

3. The exhaust gases from each internal combustion engine (EU-ICE1 through EU-ICE10) shall be discharged unobstructed vertically upwards to the ambient air from a stack with a maximum diameter of 12 inches at an exit point not less than 21 feet above ground level. [R336.1225]
4. Monitoring and recording of emissions and operating information is required to comply with the federal Standards of Performance for New Stationary Sources as specified in 40 CFR, Part 60, Subparts A and WWW. All source emissions data and operating data shall be kept on file for a period of at least five years and made available to the Department upon request.