

SUPPLEMENT to PERMIT No. 27-01

North American Natural Resources, Inc.  
Whitehall, Michigan

March 29, 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 ten 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  
 March 29, 2001

Emission Unit Identification

Emission Unit	Emission Unit Description	Stack Identification
EU-GASENGINE1	Landfill gas powered Caterpillar 3516 LE engine (1148 horsepower) and 815 kW generator set	SV1
EU-GASENGINE2	Landfill gas powered Caterpillar 3516 LE engine (1148 horsepower) and 815 kW generator set	SV2

Flexible Group Identification

Flexible Group	Emission Units Included in Flexible Group
FG-GASENGINES	EU-GASENGINE1 and EU-GASENGINE2

**FG-GASENGINES**

**Emission Limits**

	Pollutant	Equipment	Limit	Time Period	Compliance Method	UAR(s)
1.	Nitrogen Oxides (NOx)	FG-GASENGINES	44.3 tons	12-month rolling time period as determined at the end of each calendar month	Special Conditions 4, 8, 9, and 10	R336.1205(3) 40 CFR 52.21(c) and (d)
2.	Carbon Monoxide (CO)	FG-GASENGINES	69.5 tons	12-month rolling time period as determined at the end of each calendar month	Special Conditions 4, 8, 9, and 10	R336.1205(3) 40 CFR 52.21(c) and (d)

**Material Usage Limits**

- The sulfur content of the landfill gas shall not exceed 0.05% by weight on an annual average. **(To ensure FG-GASENGINES is not subject to the federal Acid Rain Program, 40 CFR 72.7)**

### **Process/Operational Limits**

4. The permittee shall not generate more than 14,300,000 kilowatt hours per year in FG-GASENGINES, based on a 12-month rolling time period as determined at the end of each calendar month. **(R336.1205(3), 40 CFR 52.21 (c) and (d))**
5. The total capacity from each unit included in FG-GASENGINES shall not exceed 25 Megawatts. **(To ensure FG-GASENGINES is not subject to 40 CFR 72.7)**

### **Testing**

6. The applicant shall collect and analyze a landfill gas sample once per calendar quarter for percent sulfur content, by weight, using an EPA approved test method. Any request for a change in the sampling frequency must be submitted to the District Supervisor for review and approval. **(40 CFR 52.21 (c) and (d), and to ensure FG-GASENGINES is not subject to 40 CFR 72.7)**
7. Within 180 days after commencement of trial operation, applicant shall analyze the landfill gas for percent chlorine content, by weight, using an EPA approved test method. The results of the analysis shall be submitted to the District Supervisor within 45 days of the analysis date. **(R336.1225)**

### **Monitoring**

8. The permittee shall continuously monitor and record the landfill gas usage rate for FG-GASENGINES in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division. **(R336.1205(3), 40 CFR 52.21 (c) and (d))**
9. The permittee shall continuously monitor and record the power generation rate of FG-GASENGINES in a manner and with instrumentation acceptable to the District Supervisor, Air Quality Division. **(R336.1205(3), 40 CFR 52.21 (c) and (d))**

**Recordkeeping/Reporting/Notification**

10. Applicant shall keep detailed records as described below.

Timeframe	FGFACILITY Records	Requirements
Per month and 12-month rolling time period	<ul style="list-style-type: none"> <li>• Calculation of the NOx and CO emission rates from FG-GASENGINES based on actual stack test data or the manufacturer's emission factors.</li> <li>• Electrical output (kWh) of each generator driven by EU-GASENGINE1 and EU-GASENGINE2</li> <li>• Hours of operation of EU-GASENGINE1 and EU-GASENGINE2.</li> <li>• Total landfill gas usage rate in FG-GASENGINES.</li> <li>• The methods used to calculate the emission rates.</li> </ul>	R336.1205(3) 40 CFR 21.21 (c) and (d) 40 CFR 72.7
Annual	<ul style="list-style-type: none"> <li>• Annual average percent sulfur content, by weight, of the landfill gas.</li> <li>• The landfill gas analyses upon which the sulfur content is based.</li> </ul>	40 CFR 72.7
<b>These records shall be kept on file for a period of at least five years and made available to the Department upon request</b>		

**Stack/Vent Restrictions**

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	UAR(s)
11.	SV1	14	35	R336.1225 40 CFR 52.21(c) and (d)
12.	SV2	14	35	R336.1225 40 CFR 52.21(c) and (d)
<b>The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.</b>				