



STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



JENNIFER M. GRANHOLM
GOVERNOR

STEVEN E. CHESTER
DIRECTOR

September 8, 2004

Mr. Richard DiGia
Westside Gas Producers, LLC
425 South Main Street
Ann Arbor, Michigan 48104

Dear Mr. DiGia:

This letter is in reference to your Permit to Install application for a landfill gas processing facility (State Registration Number N6512) located at 14034 M-60 West, Three Rivers, Michigan. This application, identified as No. 144-98B, has been evaluated and approved by the Air Quality Division, pursuant to the delegation of authority from the Michigan Department of Environmental Quality.

This approval is based upon and subject to compliance with all administrative rules of the Department and conditions stipulated in the attached supplement. **Please review these conditions thoroughly so that you may take the actions necessary to ensure compliance with all of these conditions.**

Also, Permit to Install No. 144-98A has been voided because the equipment is now covered by Permit to Install No. 144-98B.

Please contact me if you have any questions regarding this permit.

Sincerely,

Terry Wright
Chemical Process Unit
Permit Section
Air Quality Division
517-335-0100

TW:PB
Attachment
cc: Ms. Mary Douglas, District Supervisor

RMD DISTRIBUTION (9/14/04)

S. Berlinski, Westside

J. Pena

Central Files

Ms. Kirsten S. Clemens
Environmental Engineer
Michigan DEQ
Kalamazoo District Office
7953 Adobe Road
Kalamazoo MI 49009



PERMIT TO INSTALL APPLICATION

For authority to install, construct, reconstruct, relocate, or modify process, fuel-burning or refuse burning equipment and/or control equipment. Permits to install are required by administrative rules pursuant to Section 5505 of 1994 PA 451, as amended.

FOR DEQ USE ONLY

APPLICATION NUMBER

144-98B

Please type or print clearly. For further instructions, see the Application Instruction document or contact the Air Quality Division at 517-373-7023.

1. APPLICANT NAME: (Business License Name of Corporation, Partnership, Individual Owner, Government Agency) Westside Gas Producers, LLC			RECEIVED SEP 03 2004 AIR QUALITY DIV.										
2. APPLICANT ADDRESS: (Number and Street) 425 South Main Street, Suite 201													
CITY: (City or Village) Ann Arbor	STATE: MI	ZIP CODE: 48104											
3. EQUIPMENT OR PROCESS LOCATION: (Number and Street - if different than Item 2) 14034 M-60 West													
CITY: (City or Village) Three Rivers		ZIP CODE: 49093	COUNTY: Saint Joseph										
4. FACILITY CODES: Standard Industrial Classification (SIC) (4-digit) OR North American Industry Classification System (NAICS) - (Preferred)			4	8	6	2	1	State Registration Number (SRN):	N	6	5	1	2
5. GENERAL NATURE OF BUSINESS: Production of pipeline quality natural gas from landfill gas													
6. EQUIPMENT OR PROCESS DESCRIPTION: (A Description MUST Be Provided Here. Include Emission Unit IDs. Attach additional sheets if necessary.) Westside Gas Producers is proposing to modify the thermal oxidizer that is used to treat waste gas from the Kryosol landfill gas processing facility (EUKRYOSOLPROCESS). Due to increased amounts of methane in the waste gas, as compared to the original design conditions, Westside Gas Producers is planning to: <ol style="list-style-type: none"> 1. Replace the existing 2 MMBtu/hr burner with a 5 MMBtu/hr burner; 2. Replace the existing dilution air blower with a larger blower; 3. Lengthen the thermal oxidizer combustion chamber; and 4. Make other appropriate modifications to the inlet ducting and heat exchanger bypass damper. 													
7. REASON FOR APPLICATION: <input type="checkbox"/> INSTALLATION / CONSTRUCTION <input type="checkbox"/> RECONSTRUCTION <input checked="" type="checkbox"/> MODIFICATION <input type="checkbox"/> RELOCATION													
8. THE EQUIPMENT IDENTIFIED IN THE APPLICATION IS: <input type="checkbox"/> NEW <input checked="" type="checkbox"/> EXISTING - DATE INSTALLED: 03/1999													
9. IS THERE AN EXISTING PERMIT TO INSTALL FOR ANY EQUIPMENT IDENTIFIED IN THIS APPLICATION? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO PERMIT TO INSTALL NUMBER(S): 144-98A													
10. IS THERE AN EXISTING RENEWABLE OPERATING PERMIT? <input type="checkbox"/> YES <input type="checkbox"/> PENDING APPLICATION <input checked="" type="checkbox"/> NOT APPLICABLE RENEWABLE OPERATING PERMIT / APPLICATION NUMBER:													
11. CONTACT: (The person DEQ should contact with questions regarding this application) Robert Harvey (Derenzo and Associates, Inc.)									PHONE NUMBER: (Include Area Code) 517-324-1880				
12. IS THE CONTACT PERSON AUTHORIZED TO NEGOTIATE THE TERMS AND CONDITIONS OF THE PERMIT TO INSTALL? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO													
13. AUTHORIZED EMPLOYEE: Richard DiGia							TITLE: VP Operations			PHONE NUMBER: (Include Area Code) 734-997-2100			
SIGNATURE: <i>Richard M DiGia</i>							DATE: 09/01/2004						
FOR DEQ USE ONLY - DO NOT WRITE BELOW													
DATE OF RECEIPT OF ALL INFORMATION REQUIRED BY RULE 203: 9-3-04													
DATE PERMIT TO INSTALL APPROVED: 9-7-04							SIGNATURE: <i>Lynn Fiedler</i>						
DATE APPLICATION VOIDED:							SIGNATURE:						
DATE APPLICATION DENIED:							SIGNATURE:						
A PERMIT CERTIFICATE WILL BE ISSUED UPON APPROVAL OF A PERMIT TO INSTALL.													

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

September 7, 2004

**NEW SOURCE REVIEW PERMIT TO INSTALL
No. 144-98B**

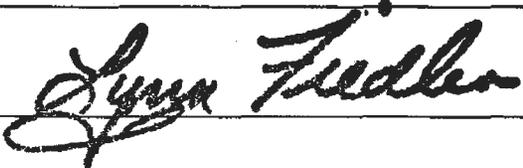
ISSUED TO
Westside Gas Producers

LOCATED AT
14034 M-60 West
Three Rivers, Michigan 49093

IN THE COUNTY OF
Saint Joseph

STATE REGISTRATION NUMBER
N6512

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 Part 5505(1) of Article II, Chapter I, Part 55 (Air Pollution Control) of P.A. 451 of 1994. 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: 9/3/2004	
DATE PERMIT TO INSTALL APPROVED: 9/7/2004	SIGNATURE: 
DATE PERMIT VOIDED:	SIGNATURE:
DATE PERMIT REVOKED:	SIGNATURE:

NEW SOURCE REVIEW PERMIT TO INSTALL

Table of ContentsSection Page

Alphabetical Listing of Common Abbreviation / Acronyms.....2

General Conditions2

Emission Unit Identification.....4

EUKRYOSOLPROCESS Special Conditions.....4

Common Abbreviations / Acronyms Used in this Permit to Install

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
GACS	Gallon of Applied Coating Solids	H ₂ S	Hydrogen Sulfide
GC	General Condition	HP	Horsepower
HAP	Hazardous Air Pollutant	lb	Pound
HVLP	High Volume Low Pressure *	m	Meter
ID	Identification	mg	Milligram
LAER	Lowest Achievable Emission Rate	mm	Millimeter
MACT	Maximum Achievable Control Technology	MM	Million
MAERS	Michigan Air Emissions Reporting System	MW	Megawatts
MAP	Malfunction Abatement Plan	NO _x	Oxides of Nitrogen
MDEQ	Michigan Department of Environmental Quality	PM	Particulate Matter
MIOSHA	Michigan Occupational Safety & Health Administration	PM-10	Particulate Matter less than 10 microns diameter
MSDS	Material Safety Data Sheet	pph	Pound per hour
NESHAP	National Emission Standard for Hazardous Air Pollutants	ppm	Parts per million
NSPS	New Source Performance Standards	ppmv	Parts per million by volume
NSR	New Source Review	ppmw	Parts per million by weight
PS	Performance Specification	psia	Pounds per square inch absolute
PSD	Prevention of Significant Deterioration	psig	Pounds per square inch gauge
PTE	Permanent Total Enclosure	scf	Standard cubic feet
PTI	Permit to Install	sec	Seconds
RACT	Reasonable Available Control Technology	SO ₂	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
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, 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. **[R336.1201(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. **[R336.1201(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 R336.1210, 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. **[R336.1201(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. **[R336.1201(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 R336.1219 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 R336.1219. The written request shall be sent to the District Supervisor, Air Quality Division, Michigan Department of Environmental Quality. **[R336.1219]**
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. **[R336.1901]**
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. **[R336.1912]**
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 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 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 R336.1301, 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 R336.1303. **[R336.1301]**
 - 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 R336.1370(2). **[R336.1370]**
13. Except as allowed by Rule 285 (a), (b), and (c), permittee 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. **[R336.1201(1)]**
14. The Department may require the permittee to conduct acceptable performance tests, at the permittee's expense, in accordance with R336.2001 and R336.2003, under any of the conditions listed in R336.2001. **[R336.2001]**

SPECIAL CONDITIONS

Emission Unit Identification

Emission Unit ID	Emission Unit Description	Stack Identification
EUKRYOSOLPROCESS	landfill gas processing using the following equipment: <ul style="list-style-type: none"> • flash separators • flash tanks • absorber column • thermal oxidizer (5MMBTU/Hr) controlling atmospheric vents 	SVKRYOSOLPROCESS
EUICENGINE	internal combustion engine driving a compressor	SVICENGINE
EUOPENFLARE	Flare	SVOPENFLARE
Changes to the equipment described in this table are subject to the requirements of R336.1201, except as allowed by R336.1278 to R336.1290.		

The following conditions apply to: EUKRYOSOLPROCESS

Equipment

1.1 Except during start-up and shut-down of EUKRYOSOLPROCESS, the permittee shall not operate EUKRYOSOLPROCESS unless all waste gases removed from the landfill gas are controlled in a thermal oxidizer that is installed, maintained, and operated in a satisfactory manner. Satisfactory operation of the thermal oxidizer includes all of the following:

- (a) Reduction of non-methane organic compounds (NMOC) by 98 weight percent or reduction of the outlet NMOC concentration to less than 20ppm by volume, dry basis as hexane at three percent oxygen.
- (b) Average combustion temperature no less than 28°C below the temperature in Appendix A. Appendix A contains the results of the most recent performance test that demonstrated compliance with 1.1(a).
- (c) Minimum retention time of 0.5 seconds.
[R336.1702(a), 40CFR 60.752(b)(2)(iii)]

Monitoring

1.2 The permittee shall install, calibrate, maintain and operate in a satisfactory manner devices to monitor and record the following:

- a) Combustion temperature in the thermal oxidizer – measured at least every 15 minutes.
- b) Gas flow rate to the thermal oxidizer – measured at least every 15 minutes.
[R336.1702(a), 40 CFR 52.21(c) and (d), 40CFR 60.756(b)]

Recordkeeping/Reporting/Notification

1.3 The permittee shall keep, in a satisfactory manner, continuous records of the combustion temperature in the thermal oxidizer. The permittee shall keep these records for a period of at least five years and make them available to the Department upon request.

[R336.1702(a), 40 CFR 52.21(c) and (d)]

1.3 The permittee shall keep, in a satisfactory manner, the following up-to-date records for the thermal oxidizer:

- (a) Combustion temperature in the thermal oxidizer - recorded continuously.
- (b) Gas flow rate to the thermal oxidizer - recorded at least every 15 minutes.
- (c) All three hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature during the most recent performance test that demonstrated compliance with the NMOC destruction requirement.

The permittee shall keep these records for a period of at least five years and make them available to the Department upon request.

[R336.1702(a), 40CFR 60.758(c)]

1.4 The permittee shall submit an annual report of the following:

- (a) All three hour periods of operation during which the average combustion temperature was more than 28°C below the average combustion temperature during the most recent performance test at which compliance with 60.752(b)(2)(iii) was determined.
- (b) Description and duration of all periods of thermal oxidizer bypass.
- (c) Description and duration of all periods when the thermal oxidizer was not operating for a period exceeding one hour.
- (d) Length of time the thermal oxidizer was not operating.

The annual report shall be submitted to the district office by March 15 of the following year.

[40CFR 60.757(f)]

1.5 This permit was evaluated and approved as a minor source. However, in the event that the United States Environmental Protection Agency (EPA) determines that Westside Gas Producers is part of the same major stationary source as the adjacent Westside RDF Landfill (SRN N1216), the permittee shall do both of the following:

- a) Within 90 days after the date of the EPA determination, submit a permit to install application to modify this permit to add emission limits that are enforceable as a practical matter.
- b) Within 90 days after the date of the EPA determination, submit forms for modifying the Westside RDF Landfill ROP.

[R336.1205, R336.1211]

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
1.7	SVKRYOSOLPROCESS	18	40	R336.1225, R336.1901
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

The following conditions apply to: EUICENGINE

Process/Operational Limits

2.1 The permittee shall not burn untreated landfill gas in EUICENGINE. [R336.1205(3)]

Stack/Vent Restrictions

	Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
2.2	SVICENGINE	14	15	40 CFR 52.21(c) and (d)
The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.				

The following conditions apply to: EU-OPENFLARE

Process/Operational Limits

3.1 The permittee shall not control waste gases from EUKRYOSOLPROCESS in EUOPENFLARE for more than 500 hours per year based on a 12 month rolling time period as determined at the end of each calendar month. [R336.1702(a), 40 CFR 52.21(c) and (d)]

Equipment

3.2 In the event that the thermal oxidizer malfunctions, the permittee shall control the waste gases from EUKRYOSOLPROCESS in EUOPENFLARE while the thermal oxidizer is being repaired. Use of this alternate method of control shall not exceed 2.5 hours in duration. If repairs to the thermal oxidizer cannot be accomplished in 2.5 hours, the permittee shall shut-down EUKRYOSOLPROCESS until the thermal oxidizer can be repaired. [R336.1702(a)]

3.3 The permittee shall equip and maintain EUOPENFLARE with the following:

- (a) Continuously burning pilot flame.
 - (b) Pilot flame detection device.
- [40CFR 60.752(b)(iii)]

Monitoring

3.4 The permittee shall install, calibrate, maintain and operate in a satisfactory manner a gas flow rate measuring device that shall monitor and record the gas flow rate to EUOPENFLARE at least every 15 minutes.
[R336.1702(a), 40 CFR 52.21(c) and (d), 40CFR 60.756(b)]

Recordkeeping/Reporting/Notification

3.5 The permittee shall keep, in a satisfactory manner, records of events when waste gases from EUKRYOSOLPROCESS are controlled in EUOPENFLARE. The records shall include all of the following:

- (a) Type of event (start-up/shut-down/malfunction of the thermal oxidizer).
- (b) Date of the event.
- (c) Duration of an event when waste gases from EUKRYOSOLPROCESS are controlled in EUOPENFLARE.
- (d) Cause of the event.
- (e) Actions taken to prevent a reoccurrence if there is a malfunction of the thermal oxidizer.
- (f) Gas flow rate to EUOPENFLARE recorded every 15 minutes.
- (g)

The permittee shall keep all records on file for a period of at least five years and make them available to the Department upon request.

[R336.1702(a), 40 CFR 52.21(c) and (d), 40CFR 60.758(c)]

Stack/Vent Restrictions

Stack & Vent ID	Maximum Diameter (inches)	Minimum Height Above Ground Level (feet)	Applicable Requirement
3.6 SVOPENFLARE	9	30	R336.1225, R336.1901

The exhaust gases shall be discharged unobstructed vertically upwards to the ambient air.



Terry

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY - AIR QUALITY DIVISION

AIR USE PERMIT APPLICATION

For authority to install, construct, reconstruct, relocate, modify, or alter process, fuel-burning or refuse burning equipment and/or control equipment (permits to install are required by administrative rules pursuant to section 5505 of act 451, p.a. 1994 as amended).

FOR DEQ USE ONLY
APPLICATION NUMBER
144-98A

Please type or print clearly. Instructions are available on the Internet at http://www.deq.state.mi.us/aqd/, or call the Air Quality Division at 517-373-7023.

RECEIVED

AUG 02 2001

AIR QUALITY DIV.

1. APPLICANT NAME: Westside Gas Producers, LLC
2. APPLICANT ADDRESS: 425 South Main Street, Suite 201
3. EQUIPMENT OR PROCESS LOCATION: 14034 M60 West
4. GENERAL NATURE OF BUSINESS: Landfill Gas (LFG) Processing Plant
5. EQUIPMENT OR PROCESS DESCRIPTION: A Description MUST Be Provided Here.
6. FACILITY CODES:
7. ACTION AND TIMING: ESTIMATED STARTING DATE August 20, 2001
8. NAME OF PRIOR OWNER: Biogas Energy, L.P.
9. AUTHORIZED FIRM MEMBER CERTIFICATION: Curtis T. Ranger, PE
10. CONTACT PERSON NAME: James R. Pefia, PE
11. DISPOSITION OF APPLICATION: FOR DEQ USE ONLY. DO NOT WRITE BELOW

*SUBJECT TO COMPLIANCE WITH ALL DEPARTMENT RULES AND THE CONDITIONS STIPULATED IN THE ATTACHED SUPPLEMENT.