State of Ohio Environmental Protection Agency

RE: FINAL PERMIT TO INSTALL **CERTIFIED MAIL**
WOOD COUNTY

Street Address:
122 S. Front Street
Lazarus Gov. Center **TELE:** (614) 644-3020 **FAX:** (614) 644-2329
Mailing Address:
Lazarus Gov. Center
P.O. Box 1049

Application No: 03-16179
Fac ID: 0387000046
DATE: 2/10/2005

MSC Walbridge Coatings, Inc.
Roger Blem
30610 East Broadway
Walbridge, OH 43465

Enclosed please find an Ohio EPA Permit to Install which will allow you to install the described source(s) in a manner indicated in the permit. Because this permit contains several conditions and restrictions, I urge you to read it carefully.

The Ohio EPA is urging companies to investigate pollution prevention and energy conservation. Not only will this reduce pollution and energy consumption, but it can also save you money. If you would like to learn ways you can save money while protecting the environment, please contact our Office of Pollution Prevention at (614) 644-3469.

You are hereby notified that this action by the Director is final and may be appealed to the Ohio Environmental Review Appeals Commission pursuant to Chapter 3745.04 of the Ohio Revised Code. The appeal must be in writing and set forth the action complained of and the grounds upon which the appeal is based. It must be filed within thirty (30) days after the notice of the Directors action. A copy of the appeal must be served on the Director of the Ohio Environmental Protection Agency within three (3) days of filing with the Commission. An appeal may be filed with the Environmental Review Appeals Commission at the following address:

Environmental Review Appeals Commission
309 South Fourth Street, Room 222
Columbus, Ohio 43215

Sincerely,

Michael W. Ahern

Michael W. Ahern, Manager
Permit Issuance and Data Management Section
Division of Air Pollution Control

cc: **USEPA** **NWDO**

STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY

Permit To Install	**Issue Date: 2/10/2005**
Terms and Conditions	**Effective Date: 2/10/2005**

FINAL PERMIT TO INSTALL 03-16179

Application Number:	03-16179
Facility ID:	0387000046
Permit Fee:	**$2000**
Name of Facility:	MSC Walbridge Coatings, Inc.
Person to Contact:	Roger Blem
Address:	30610 East Broadway Walbridge, OH 43465

Location of proposed air contaminant source(s) [emissions unit(s)]:
30610 East Broadway
Walbridge, **Ohio**

Description of proposed emissions unit(s):
(2)25.1 MBTU boiler, (1)7.32 MMBTU boiler,.

The above named entity is hereby granted a Permit to Install for the above described emissions unit(s) pursuant to Chapter 3745-31 of the Ohio Administrative Code. Issuance of this permit does not constitute expressed or implied approval or agreement that, if constructed or modified in accordance with the plans included in the application, the above described emissions unit(s) of environmental pollutants will operate in compliance with applicable State and Federal laws and regulations, and does not constitute expressed or implied assurance that if constructed or modified in accordance with those plans and specifications, the above described emissions unit(s) of pollutants will be granted the necessary permits to operate (air) or NPDES permits as applicable.

This permit is granted subject to the conditions attached hereto.

Ohio Environmental Protection Agency

Joseph P. Koncelik

Director

Part I - GENERAL TERMS AND CONDITIONS

A. Permit to Install General Terms and Conditions

1. Compliance Requirements

The emissions unit(s) identified in this Permit to Install shall remain in full compliance with all applicable State laws and regulations and the terms and conditions of this permit.

2. Reporting Requirements

The permittee shall submit required reports in the following manner:

a. Reports of any required monitoring and/or recordkeeping information shall be submitted to the appropriate Ohio EPA District Office or local air agency.

b. Except as otherwise may be provided in the terms and conditions for a specific emissions unit, quarterly written reports of (a) any deviations (excursions) from emission limitations, operational restrictions, and control device operating parameter limitations that have been detected by the testing, monitoring, and recordkeeping requirements specified in this permit, (b) the probable cause of such deviations, and (c) any corrective actions or preventive measures which have been or will be taken, shall be submitted to the appropriate Ohio EPA District Office or local air agency. If no deviations occurred during a calendar quarter, the permittee shall submit a quarterly report, which states that no deviations occurred during that quarter. The reports shall be submitted quarterly, i.e., by January 31, April 30, July 31, and October 31 of each year and shall cover the previous calendar quarters. (These quarterly reports shall exclude deviations resulting from malfunctions reported in accordance with OAC rule 3745-15-06.)

3. Records Retention Requirements

Each record of any monitoring data, testing data, and support information required pursuant to this permit shall be retained for a period of five years from the date the record was created. Support information shall include, but not be limited to, all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. Such records may be maintained in computerized form.

4. Inspections and Information Requests

The Director of the Ohio EPA, or an authorized representative of the Director, may, subject to the safety requirements of the permittee and without undue delay, enter upon the premises of this source at any reasonable time for purposes of making inspections, conducting tests, examining records or reports pertaining to any emission of air contaminants, and determining compliance with any applicable State air pollution laws and regulations and the terms and conditions of this permit. The permittee shall furnish to the Director of the Ohio EPA, or an authorized

representative of the Director, upon receipt of a written request and within a reasonable time, any information that may be requested to determine whether cause exists for modifying, reopening or revoking this permit or to determine compliance with this permit. Upon verbal or written request, the permittee shall also furnish to the Director of the Ohio EPA, or an authorized representative of the Director, copies of records required to be kept by this permit.

5. Scheduled Maintenance/Malfunction Reporting

Any scheduled maintenance of air pollution control equipment shall be performed in accordance with paragraph (A) of OAC rule 3745-15-06. The malfunction of any emissions units or any associated air pollution control system(s) shall be reported to the appropriate Ohio EPA District Office or local air agency in accordance with paragraph (B) of OAC rule 3745-15-06. Except as provided in that rule, any scheduled maintenance or malfunction necessitating the shutdown or bypassing of any air pollution control system(s) shall be accompanied by the shutdown of the emissions unit(s) that is (are) served by such control system(s).

6. Permit Transfers

Any transferee of this permit shall assume the responsibilities of the prior permit holder. The appropriate Ohio EPA District Office or local air agency must be notified in writing of any transfer of this permit.

7. Air Pollution Nuisance

The air contaminants emitted by the emissions units covered by this permit shall not cause a public nuisance, in violation of OAC rule 3745-15-07.

8. Termination of Permit to Install

This Permit to Install shall terminate within eighteen months of the effective date of the Permit to Install if the owner or operator has not undertaken a continuing program of installation or modification or has not entered into a binding contractual obligation to undertake and complete within a reasonable time a continuing program of installation or modification. This deadline may be extended by up to 12 months if application is made to the Director within a reasonable time before the termination date and the party shows good cause for any such extension.

9. Construction of New Sources(s)

The proposed emissions unit(s) shall be constructed in strict accordance with the plans and application submitted for this permit to the Director of the Ohio Environmental Protection Agency. There may be no deviation from the approved plans without the express, written approval of the Agency. Any deviations from the approved plans or the above conditions may lead to such sanctions

and penalties as provided under Ohio law. Approval of these plans does not constitute an assurance that the proposed facilities will operate in compliance with all Ohio laws and regulations. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed sources cannot meet the requirements of this permit or cannot meet applicable standards.

If the construction of the proposed emissions unit(s) has already begun or has been completed prior to the date the Director of the Environmental Protection Agency approves the permit application and plans, the approval does not constitute expressed or implied assurance that the proposed facility has been constructed in accordance with the approved plans. The action of beginning and/or completing construction prior to obtaining the Director's approval constitutes a violation of OAC rule 3745-31-02. Furthermore, issuance of the Permit to Install does not constitute an assurance that the proposed source will operate in compliance with all Ohio laws and regulations. Approval of the plans in any case is not to be construed as an approval of the facility as constructed and/or completed. Moreover, issuance of the Permit to Install is not to be construed as a waiver of any rights that the Ohio Environmental Protection Agency (or other persons) may have against the applicant for starting construction prior to the effective date of the permit. Additional facilities shall be installed upon orders of the Ohio Environmental Protection Agency if the proposed facilities cannot meet the requirements of this permit or cannot meet applicable standards.

10. Public Disclosure

The facility is hereby notified that this permit, and all agency records concerning the operation of this permitted source, are subject to public disclosure in accordance with OAC rule 3745-49-03.

11. Applicability

This Permit To Install is applicable only to the emissions unit(s) identified in the Permit To Install. Separate Permit To Install for the installation or modification of any other emissions unit(s) are required for any emissions unit for which a Permit To Install is required.

12. Best Available Technology

As specified in OAC Rule 3745-31-05, all new sources must employ Best Available Technology (BAT). Compliance with the terms and conditions of this permit will fulfill this requirement.

13. Source Operation and Operating Permit Requirements After Completion of Construction

This facility is permitted to operate each source described by this Permit to Install for a period of up to one year from the date the source commenced operation. This permission to operate is granted only if the facility complies with all requirements contained in this permit and all applicable air pollution laws, regulations, and policies. Pursuant to OAC Chapter 3745-35, the permittee shall submit a complete operating permit application within ninety (90) days after commencing operation of the emissions unit(s) covered by this permit.

14. Construction Compliance Certification

The applicant shall provide Ohio EPA with a written certification (see enclosed form) that the facility has been constructed in accordance with the Permit to Install application and the terms and conditions of the Permit to Install. The certification shall be provided to Ohio EPA upon completion of construction but prior to startup of the source.

15. Fees

The permittee shall pay fees to the Director of the Ohio EPA in accordance with ORC section 3745.11 and OAC Chapter 3745-78. The permittee shall pay all applicable Permit to Install fees within 30 days after the issuance of this Permit to Install.

B. Permit to Install Summary of Allowable Emissions

The following information summarizes the total allowable emissions, by pollutant, based on the individual allowable emissions of each air contaminant source identified in this permit.

SUMMARY (for informational purposes only)
TOTAL PERMIT TO INSTALL ALLOWABLE EMISSIONS

Pollutant	Tons Per Year
NO_x	24.49
CO	20.59
SO_2	24.23
VOC	1.32
PE	4.13

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
		OAC rule 3745-23-06(B)
		OAC rule 3745-21-08(B)
B001 - natural gas/landfill gas fired boiler (rated maximum capacity of 25.1 MMBtu/hr)	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-17-10(B)(1)	
	OAC rule 3745-17-07 (A)(1)	
	OAC rule 3745-18-06	

Applicable Emissions Limitations/Control Measures
2.44 lbs nitrogen oxides (NO_x)/hr; 10.69 tons NO_x/yr
2.05 lbs carbon monoxide (CO)/hr; 8.98 tons CO/yr
0.13 lbs organic compounds (OC)/hr; 0.57 tons OC/yr
2.39 lbs sulfur dioxide (SO_2)/hr; 10.47 tons SO_2/yr
0.41 lbs particulate emissions (PE)/hr; 1.80 tons PE/yr
Visible PE shall not exceed 10% opacity as a six-minute average
Control Requirements, see A.2.a
see A.2.b
see A.2.c
see A.2.d
see A.2.e
see A.2.e

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) control requirement for this emissions unit has been determined to be the reduction of non-methane organic compound (NMOC) emissions by 98 weight percent or reduce the outlet NMOC emissions to less than 20 parts

per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

2.c The visible emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.d This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(C).

2.e The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

B. Operational Restrictions

1. This emissions unit shall burn landfill gas or natural gas only.

2. The permittee shall install a temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one percent of the temperature being measured expressed in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations.

3. The landfill gas stream shall be introduced into the flame zone of the boiler. The permittee shall maintain a description of the location at which the landfill gas is introduced into the boiler.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record , each day, all 3-hour periods of operation during which the average combustion chamber temperature within the emission unit was more than 28 degrees Celsius below the average combustion temperature during the most recent performance test.

2. The permittee shall record each day when a fuel other than landfill gas and/or natural gas was burned in this emissions unit.

3. The permittee shall install, calibrate, and maintain a gas flow rate measuring device that shall

record the flow to the boiler or bypass of the boiler at least every fifteen minutes or secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

4. The permittee shall keep the records of the indication of flow to the boiler or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour periods of operation which the average combustion temperature within the boiler was more than 28 degrees Celsius below the average combustion temperature during the most recent performance test. The report shall identify the actual average temperature during the exceedance. This report shall be submitted in accordance with the general terms and conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than landfill gas and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

3. Any breakdown or malfunction resulting in the emission of raw landfill gas to the atmosphere shall be reported to the Northwest District Office of the Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere.

4. The permittee shall submit an annual report which provides a description and duration of all periods when the landfill gas stream was diverted from the boiler through a bypass line or the indication of bypass flow. These reports shall be submitted by January 31st of each year and shall cover the previous calendar year.

5. The permittee shall submit a report whenever there is a change in the location at which the collected gas vent stream is introduced into the boiler. The report shall be submitted within 30 days after the change.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the reduction of 98 weight-percent of NMOC or the reduction of the outlet concentration of NMOC to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

c. The following test methods shall be employed to demonstrate compliance: Method 18, 25, or 25C of 40 CFR, Part 60, Appendix A. Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent compilation of air pollutant emission factors (AP-42). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at its maximum capacity of 25.1 MMBtu/hr and burning landfill gas, unless otherwise specified or approved by the Ohio EPA, NWDO.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA's refusal to accept the results of the emission tests.

f. Personnel from the Ohio EPA shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA NWDO.

2. Compliance with the emission limitations in Section A.1. of these terms and conditions shall be

determined in accordance with the following methods:

a. Emission Limitation:
2.44 lbs NO_x/hr, 10.69 tons NO_x/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum natural gas fuel usage of 24,416 ft^3/hr by the appropriate AP-42 emission factor of 100 lb/10^6 ft^3 from Chapter 1, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

b. Emission Limitation:
2.05 lbs CO/hr, 8.98 tons CO/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum natural gas fuel usage of 24,416 ft^3/hr by the appropriate AP-42 emission factor of 84 lb/10^6 ft^3 from Chapter 1, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

c. Emission Limitation:
0.13 lbs OC/hr; 0.57 tons OC/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum natural gas fuel usage of 24,416 ft^3/hr by the appropriate AP-42 emission factor of 5.5 lb/10^6 ft^3 from Chapter 1, Table 1.4-2 (7/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating

schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

d. Emission Limitation:
2.39 lbs SO_2/hr, 10.47 tons SO_2/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by using the following equation:

SO_2 = (ppmv) x (MW) x (DSCFM) x (1.5584×10^{-7}) at 68^0 F and 29.92 inches Hg which is the equation to convert ppm to lbs/hr for a pollutant in air

where ppmv = the concentration of SO_2 in landfill gas [given as 46.9 ppmv in AP-42 Chapter 2 Section 4 (11/98)]
MW = molecular weight which is 64.04 lbs/lb moles
DSCFM = Stack gas dry volumetric flow rate, at standard conditions which is 5100 ft^3/min

If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

e. Emission Limitation:
0.41 lbs PE/hr, 1.80 tons PE/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum landfill gas fuel usage of 50,228 ft^3/hr by the appropriate AP-42 emission factor of 8.2 lb/10^6 ft^3 from Chapter 2, Table 2.4-5 (11/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

f. Emission Limitation:
Non-methane organic compound (NMOC) emissions shall be reduced by 98 weight percent or reduce the outlet NMOC emissions to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

Applicable Compliance Method:
Compliance with the hourly mass emission limitations shall be demonstrated by the performance testing required in condition E.1.

g. Emission Limitation:
visible PE shall not exceed 10% opacity, as a six-minute average

Applicable Compliance Method:
If required, compliance with the visible PE limitations shall be determined in accordance with the test methods and procedures in Method 9 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
		OAC rule 3745-23-06(B)
		OAC rule 3745-21-08(B)
B002 - Natural gas/landfill gas-fired boiler (rated maximum capacity of 7.321 MMBtu/hr)	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-17-10(B)(1)	
	OAC rule 3745-17-07 (A)(1)	
	OAC rule 3745-18-06	

Applicable Emissions Limitations/Control Measures
0.71 lbs nitrogen oxides (NO_x)/hr; 3.11 tons NO_x/yr
0.60 lbs carbon monoxide (CO)/hr; 2.63 tons CO/yr
0.04 lbs organic compounds (OC)/hr; 0.18 tons OC/yr
0.75 lbs sulfur dioxide (SO_2)/hr; 3.29 tons SO_2/yr
0.12 lbs particulate emissions (PE)/hr; 0.53 tons PE/yr
Visible PE shall not exceed 10% opacity as a six-minute average
see A.2.a
see A.2.b
see A.2.c
see A.2.d
see A.2.e
see A.2.e

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) control requirement for this emissions unit has been determined to be the reduction of non-methane organic compound (NMOC) emissions by 98 weight percent or reduce the outlet NMOC emissions to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

2.c The visible emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.d This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06©).

2.e The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

B. Operational Restrictions

1. This emissions unit shall burn landfill gas or natural gas only.

2. The permittee shall install a temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one percent of the temperature being measured expressed in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations.

3. The landfill gas stream shall be introduced into the flame zone of the boiler. The permittee shall maintain a description of the location at which the landfill gas is introduced into the boiler.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record , each day, all 3-hour periods of operation during which the average combustion chamber temperature within the emission unit was more than 28 degrees Celsius below the average combustion temperature during the most recent performance test.

2. The permittee shall record each day when a fuel other than landfill gas and/or natural gas was burned in this emissions unit.

3. The permittee shall install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the boiler or bypass of the boiler at least every fifteen minutes or secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

4. The permittee shall keep the records of the indication of flow to the boiler or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour periods of operation which the average combustion temperature within the boiler was more than 28 degrees Celsius below the average combustion temperature during the most recent performance test. The report shall identify the actual average temperature during the exceedance. This report shall be submitted in accordance with the general terms and conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than landfill gas and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

3. Any breakdown or malfunction resulting in the emission of raw landfill gas to the atmosphere shall be reported to the Northwest District Office of the Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere.

4. The permittee shall submit an annual report which provides a description and duration of all periods when the landfill gas stream was diverted from the boiler through a bypass line or the indication of bypass flow. These reports shall be submitted by January 31st of each year and shall cover the previous calendar year.

5. The permittee shall submit a report whenever there is a change in the location at which the collected gas vent stream is introduced into the boiler. The report shall be submitted within 30 days after the change.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

   a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

   b. The emission testing shall be conducted to demonstrate compliance with the reduction of 98 weight-percent of NMOC or the reduction of the outlet concentration of NMOC to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

   c. The following test methods shall be employed to demonstrate compliance: Method 18, 25, or 25C of 40 CFR, Part 60, Appendix A. Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent compilation of air pollutant emission factors (AP-42). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

   d. The tests shall be conducted while the emissions unit is operating at its maximum capacity of 7.321 MMBtu/hr and burning landfill gas, unless otherwise specified or approved by the Ohio EPA, NWDO.

   e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA's refusal to accept the results of the emission tests.

   f. Personnel from the Ohio EPA shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

   g. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within

30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA NWDO.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:
0.71 lbs NO_x/hr, 3.11 tons NO_x/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum natural gas fuel usage of 7,120 ft^3/hr by the appropriate AP-42 emission factor of 100 lb/10^6 ft^3 from Chapter 1, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

b. Emission Limitation:
0.60 lbs CO/hr, 2.63 tons CO/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum natural gas fuel usage of 7,120 ft^3/hr by the appropriate AP-42 emission factor of 84 lb/10^6 ft^3 from Chapter 1, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

c. Emission Limitation:
0.04 lbs OC/hr; 0.18 tons OC/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum natural gas fuel usage of 7,120 ft^3/hr by the appropriate AP-42 emission

factor of 5.5 lb/10^6 ft^3 from Chapter 1, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

d. Emission Limitation:
0.75 lbs SO_2/hr, 3.29 tons SO_2/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by using the following equation:

SO_2 = (ppmv) x (MW) x (DSCFM) x (1.5584 X 10^{-7}) at 68^0 F and 29.92 inches Hg which is the equation to convert ppm to lbs/hr for a pollutant in air

where ppmv = the concentration of SO_2 in landfill gas [given as 46.9 ppmv in AP-42 Chapter 2 Section 4 (11/98)]
MW = molecular weight which is 64.04 lbs/lb moles
DSCFM = Stack gas dry volumetric flow rate, at standard conditions which is 1600 ft^3/min

If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

e. Emission Limitation:
0.12 lbs PE/hr, 0.53 tons PE/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum landfill gas fuel usage of 14,612 ft^3/hr by the appropriate AP-42 emission factor of 8.2 lb/10^6 ft^3 from Chapter 2, Table 2.4-5 (11/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

f. Emission Limitation:
Non-methane organic compound (NMOC) emissions shall be reduced by 98 weight percent or reduce the outlet NMOC emissions to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

Applicable Compliance Method:
Compliance with the hourly mass emission limitations shall be demonstrated by the performance testing required in condition E.1.

g. Emission Limitation:
visible PE shall not exceed 10% opacity, as a six-minute average

Applicable Compliance Method:
If required, compliance with the visible PE limitations shall be determined in accordance with the test methods and procedures in Method 9 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

None

PART II - SPECIAL TERMS AND CONDITIONS FOR SPECIFIC EMISSIONS UNIT(S)

A. Applicable Emissions Limitations and/or Control Requirements

1. The specific operations(s), property, and/or equipment which constitute this emissions unit are listed in the following table along with the applicable rules and/or requirements and with the applicable emissions limitations and/or control measures. Emissions from this unit shall not exceed the listed limitations, and the listed control measures shall be specified in narrative form following the table.

Operations, Property, and/or Equipment	Applicable Rules/Requirements	
		OAC rule 3745-23-06(B)
		OAC rule 3745-21-08(B)
B003 - Natural gas/landfill gas-fired boiler (rated maximum capacity of 25.1 MMBtu/hr)	OAC rule 3745-31-05(A)(3)	
	OAC rule 3745-17-10(B)(1)	
	OAC rule 3745-17-07 (A)(1)	
	OAC rule 3745-18-06	

Applicable Emissions Limitations/Control Measures
2.44 lbs nitrogen oxides (NO_x)/hr; 10.69 tons NO_x/yr
2.05 lbs carbon monoxide (CO)/hr; 8.98 tons CO/yr
0.13 lbs organic compounds (OC)/hr; 0.57 tons OC/yr
2.39 lbs sulfur dioxide (SO_2)/hr; 10.47 tons SO_2/yr
0.41 lbs particulate emissions (PE)/hr; 1.80 tons PE/yr
Visible PE shall not exceed 10% opacity as a six-minute average
see A.2.2.a
see A.2.b
see A.2.c
see A.2.d
see A.2.e
see A.2.e

2. Additional Terms and Conditions

2.a The "Best Available Technology" (BAT) control requirement for this emissions unit has been determined to be the reduction of non-methane organic compound (NMOC) emissions by 98 weight percent or reduce the outlet NMOC emissions to less than 20 parts

per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

2.b The emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05 (A)(3).

2.c The visible emission limitation specified by this rule is less stringent than the emission limitation established pursuant to OAC rule 3745-31-05(A)(3).

2.d This emissions unit is exempt from the requirements of OAC rule 3745-18-06 pursuant to OAC rule 3745-18-06(C).

2.e The permittee has satisfied the "latest available control techniques and operating practices" required pursuant to OAC rule 3745-23-06(B) and the "best available control techniques and operating practices" required pursuant to OAC rule 3745-21-08(B) by committing to comply with the best available technology requirements established pursuant to OAC rule 3745-31-05(A)(3) in this permit to install.

B. Operational Restrictions

1. This emissions unit shall burn landfill gas or natural gas only.

2. The permittee shall install a temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of plus or minus one percent of the temperature being measured expressed in degrees Celsius or plus or minus 0.5 degrees Celsius, whichever is greater. The temperature monitor and recorder shall be installed, calibrated, operated, and maintained in accordance with the manufacturer's recommendations.

3. The landfill gas stream shall be introduced into the flame zone of the boiler. The permittee shall maintain a description of the location at which the landfill gas is introduced into the boiler.

C. Monitoring and/or Record keeping Requirements

1. The permittee shall collect and record , each day, all 3-hour periods of operation during which the average combustion chamber temperature within the emission unit was more than 28 degrees Celsius below the average combustion temperature during the most recent performance test.

2. The permittee shall record each day when a fuel other than landfill gas and/or natural gas was burned in this emissions unit.

3. The permittee shall install, calibrate, and maintain a gas flow rate measuring device that shall

record the flow to the boiler or bypass of the boiler at least every fifteen minutes or secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

4. The permittee shall keep the records of the indication of flow to the boiler or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines.

D. Reporting Requirements

1. The permittee shall submit deviation (excursion) reports which identify all 3-hour periods of operation which the average combustion temperature within the boiler was more than 28 degrees Celsius below the average combustion temperature during the most recent performance test. The report shall identify the actual average temperature during the exceedance. This report shall be submitted in accordance with the general terms and conditions of this permit.

2. The permittee shall submit deviation (excursion) reports that identify each day when a fuel other than landfill gas and/or natural gas was burned in this emissions unit. Each report shall be submitted within 30 days after the deviation occurs.

3. Any breakdown or malfunction resulting in the emission of raw landfill gas to the atmosphere shall be reported to the Northwest District Office of the Ohio EPA within one hour after the occurrence, or as soon as reasonably possible, and immediate remedial measures shall be undertaken to correct the problem and prevent further emissions to the atmosphere.

4. The permittee shall submit an annual report which provides a description and duration of all periods when the landfill gas stream was diverted from the boiler through a bypass line or the indication of bypass flow. These reports shall be submitted by January 31st of each year and shall cover the previous calendar year.

5. The permittee shall submit a report whenever there is a change in the location at which the collected gas vent stream is introduced into the boiler. The report shall be submitted within 30 days after the change.

E. Testing Requirements

1. The permittee shall conduct, or have conducted, emission testing for this emissions unit in accordance with the following requirements:

a. The emission testing shall be conducted within 60 days after achieving the maximum production rate at which the emissions unit will be operated, but not later than 180 days after initial startup of such emissions unit.

b. The emission testing shall be conducted to demonstrate compliance with the reduction of 98 weight-percent of NMOC or the reduction of the outlet concentration of NMOC to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

c. The following test methods shall be employed to demonstrate compliance: Method 18, 25, or 25C of 40 CFR, Part 60, Appendix A. Method 3 or 3A shall be used to determine oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18, the minimum list of compounds to be tested shall be those published in the most recent compilation of air pollutant emission factors (AP-42). Alternative U.S. EPA-approved test methods may be used with prior approval from the Ohio EPA.

d. The tests shall be conducted while the emissions unit is operating at its maximum capacity of 25.1 MMBtu/hr and burning landfill gas, unless otherwise specified or approved by the Ohio EPA, NWDO.

e. Not later than 30 days prior to the proposed test date(s), the permittee shall submit an "Intent to Test" notification to the Ohio EPA, NWDO. The "Intent to Test" notification shall describe in detail the proposed test methods and procedures, the emissions unit operating parameters, the time(s) and date(s) of the tests, and the person(s) who will be conducting the tests. Failure to submit such notification for review and approval prior to the tests may result in the Ohio EPA's refusal to accept the results of the emission tests.

f. Personnel from the Ohio EPA shall be permitted to witness the test(s), examine the testing equipment, and acquire data and information necessary to ensure that the operation of the emissions unit and the testing procedures provide a valid characterization of the emissions from the emissions unit and/or the performance of the control equipment.

g. A comprehensive written report on the results of the emissions tests shall be signed by the person or persons responsible for the tests and submitted to the Ohio EPA, NWDO within 30 days following completion of the tests. The permittee may request additional time for the submittal of the written report, where warranted, with prior approval from the Ohio EPA NWDO.

2. Compliance with the emission limitations in Section A.1 of these terms and conditions shall be determined in accordance with the following methods:

a. Emission Limitation:
2.44 lbs NO_x/hr, 10.69 tons NO_x/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum natural gas fuel usage of 24,416 ft^3/hr by the appropriate AP-42 emission factor of 100 lb/10^6 ft^3 from Chapter 1, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

b. Emission Limitation:
2.05 lbs CO/hr, 8.98 tons CO/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum natural gas fuel usage of 24,416 ft^3/hr by the appropriate AP-42 emission factor of 84 lb/10^6 ft^3 from Chapter 1, Table 1.4-1 (7/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

c. Emission Limitation:
0.13 lbs OC/hr; 0.57 tons OC/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum natural gas fuel usage of 24,416 ft^3/hr by the appropriate AP-42 emission factor of 5.5 lb/10^6 ft^3 from Chapter 1, Table 1.4-2 (7/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating

schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

d. Emission Limitation:
2.39 lbs SO_2/hr, 10.47 tons SO_2/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by using the following equation:

SO_2 = (ppmv) x (MW) x (DSCFM) x (1.5584×10^{-7}) at 68^0 F and 29.92 inches Hg which is the equation to convert ppm to lbs/hr for a pollutant in air

where ppmv = the concentration of SO_2 in landfill gas [given as 46.9 ppmv in AP-42 Chapter 2 Section 4 (11/98)]
MW = molecular weight which is 64.04 lbs/lb moles
DSCFM = Stack gas dry volumetric flow rate, at standard conditions which is 5100 ft^3/min

If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

e. Emission Limitation:
0.41 lbs PE/hr, 1.80 tons PE/yr

Applicable Compliance Method:
The permittee shall demonstrate compliance with the hourly emission rate by multiplying the maximum landfill gas fuel usage of 50,228 ft^3/hr by the appropriate AP-42 emission factor of 8.2 lb/10^6 ft^3 from Chapter 2, Table 2.4-5 (11/98). If required, the permittee shall demonstrate compliance by emission testing in accordance with approved U.S. EPA test methods.

The tons/yr was developed by multiplying the lb/hr limitation by the maximum operating schedule of 8760 hrs/yr, and dividing by 2000 lbs/ton. Therefore, provided compliance is shown with the hourly limitation, compliance will also be shown with the annual limitation.

f. Emission Limitation:
Non-methane organic compound (NMOC) emissions shall be reduced by 98 weight percent or reduce the outlet NMOC emissions to less than 20 parts per million by volume, dry basis (ppmvd) as hexane at 3 percent oxygen.

Applicable Compliance Method:
Compliance with the hourly mass emission limitations shall be demonstrated by the performance testing required in condition E.1.

g. Emission Limitation:
visible PE shall not exceed 10% opacity, as a six-minute average

Applicable Compliance Method:
If required, compliance with the visible PE limitations shall be determined in accordance with the test methods and procedures in Method 9 of 40 CFR Part 60, Appendix A.

F. Miscellaneous Requirements

None