



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
FIELD OPERATIONS - BUREAU OF AIR QUALITY

ATG PSD  
NSPS

OPERATING PERMIT  
(Amended 05/17/96)

In accordance with provisions of the Air Pollution Control Act, the act of January 8, 1960, P.L. 2119, as amended, and after due consideration of an application received under Chapter 127 of the rules and regulations of the Department of Environmental Protection, the Department hereby issues this permit for the operation of the air contamination source(s) described below:

Permit No.	<u>OP-09-0013</u>	Source(s)	<u>Municipal Waste Resource Recovery</u>
Owner	<u>Wheelabrator Falls, Inc.</u>	Air	<u>Facility (2 units) with Acid Gas</u>
Address	<u>1201 New Ford Mill Road</u>	Cleaning	<u>Scrubbers, Fabric Filters and Selective</u>
	<u>Morrisville, PA 19067-0413</u>	Device	<u>Non-Catalytic Reduction</u>
Attention	<u>Mr. Willie M. Taylor, Jr.</u>	Location	<u>New Ford Mill Road</u>
	<u>Plant Manager</u>		<u>Falls Township</u>
			<u>Bucks County</u>

This permit is subject to the following conditions:

1. That the source(s) and any associated air cleaning devices are to be:
  - a. operated in such a manner as not to cause air pollution;
  - b. in compliance with the specifications and conditions of the Plan Approval issued under the number 09-340-003A;
  - c. operated and maintained in a manner consistent with good operating and maintenance practices.
2. This permit is valid only for the specific equipment, location and owner named above.

(SEE ADDITIONAL CONDITIONS ATTACHED)

Failure to comply with the conditions placed on this permit is a violation of Section 127.444. Violation of this or any other provision of Article III of the rules and regulations of the Department of Environmental Protection will result in suspension or revocation of this permit and/or prosecution under Section 9 of the Air Pollution Control Act.

Issued 01/11/96

Francine Carlini  
Regional Manager  
Air Quality

cc: Central Office  
Administration  
SEFO  
Re (KAL)300.12

OPERATING PERMIT CONDITIONS  
PERMIT NO. OP-09-0013  
WHEELABRATOR FALLS, INC.

CONDITIONS (CONTINUED):

3. This Operating Permit is issued to a municipal waste fired resource recovery facility as further described in the application submitted February 16, 1989, and supplemental information for plan approval and including two Von Roll/Babcock & Wilcox mass burn type, waterwall steam generator-municipal waste combustors. Each combustor will have a nominal rating of 750 tons per day of municipal waste. Maximum input to each unit is limited to  $325 \times 10^6$  Btu/hour and 800 tons per day of waste. The air contaminant emissions from each unit are to be controlled by individual acid gas dry scrubbers, activated carbon injection and fabric filters as described in the application as amended. Nitrogen oxide emissions shall be controlled by combustion controls in conjunction with a selective noncatalytic reduction system.
- B. This Operating Permit is the Department's determination of Reasonably Available Control Technology (RACT) for nitrogen oxides (NOx) and volatile organic compound (VOC) emissions from the facility as required by 25 Pa. Code Chapter 129 Sections 129.91-129.95.

4. Stack Emission Limitations

4. Nitrogen oxide (NOx) emissions per combustor, expressed as NO<sub>2</sub> shall not exceed 102.6 pounds per hour and, 180 ppm<sub>dv</sub>, twenty-four hour daily average, corrected to 7% O<sub>2</sub> using selective noncatalytic reduction (SNCR). A SNCR optimization program will be designed for the Department to maximize the control of NOx concentrations and minimize associated problems such as ammonia slip and visible plume formation. The program shall commence on the same day that initial tests are started as required in Condition 8. The Department may set a new lower allowable emission rate for NOx after reviewing the results of the 18 month optimization program. The program shall include 18 months of NOx testing and monitoring data required under Conditions 7.A. and 8.A. and B. A detailed report shall be prepared by the applicant and submitted to the Department within 24 months of the start of the program.
- a. The facility's annual capacity factor as defined in 40 CFR §60.41b for natural gas usage shall be less than 10%. If this capacity is exceeded, the facility shall be subject to 40 CFR Section 60.44b.
- b. The facility, in addition to the two combustors, has 18 gas fired heaters and 1 diesel fire pump. The NOx emission limit for the facility shall not exceed 899.7 tons per year. The annual NOx emission limit for the facility is specified below:

	NOx Emission Limitation
Source	TPY
2 Combustors	898.8
18 Gas Fired Heaters	0.4
1 Diesel Fired Pump	0.5
Facility Total	899.7

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CONDITIONS (CONTINUED):

- c. The NOx emission limits indicated above for the 2 combustors are a result of SNCR. This control system has been approved by the Department as meeting the requirements of Reasonably Available Control Technology (RACT) for the emissions of nitrogen oxide compounds under 25 Pa. Code §129.91 and §129.92. Compliance with the emission limits for the combustors shall be documented by a Department approved continuous emission monitoring (CEM) system.
  - d. The CEM system shall continuously monitor and record emission data from the combustors. The facility shall also record hours of operation and amount of waste charged.
  - e. Compliance with the above NOx limits for the eighteen (18) gas fired heaters and 25 Pa. Code §129.93(c) shall be documented by recordkeeping of fuel usage, and maintenance and operation in accordance with manufacturers specifications and good air pollution control practices.
  - f. Compliance with the above NOx limits for the diesel fired pump and 25 Pa. Code §129.93(c) shall be documented by recordkeeping of fuel usage, and maintenance and operation in accordance with manufacturers specifications and good air pollution control practices.
  - g. The methods to document compliance noted above shall establish the facility in compliance with 25 Pa. Code Chapter 129 Sections 129.91 129.95 for NOx emissions.
5. Volatile Organic Compound (VOC) emissions per combustor, expressed as total hydrocarbon, shall not exceed 2.68 pounds per hour and 11.74 tons per year. EPA Method 25 or Department approved equivalent shall be used to determine VOC emissions. The VOC emissions for the total facility including 2 combustors, 18 gas fired heaters and 1 diesel fire pump shall not exceed 24.46 tons per year. The annual VOC emission limitation for the facility is specified below:

Source	VOC Emission Limitation (TPY)
2 Combustors	23.48
18 Gas Fired Heaters	0.14
<u>1 Diesel Fired Pump</u>	<u>0.84</u>
Facility Total	24.46

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CONDITIONS (CONTINUED):

- a. The VOC emission limits indicated above for the 2 combustors are a result of controlled combustion. This control has been determined by the Department as being Reasonably Available Control Technology (RACT) for emissions of volatile organic compounds. Compliance with the above emission limits for the combustor(s) shall be documented by the performance of a stack test every six (6) months and recordkeeping of hours of operation and amount of waste charged.
- b. Compliance with the VOC limits for the eighteen (18) gas fired heaters and the diesel fire pump shall be documented by recordkeeping of fuel usage per day.
- c. The Department reserves the right to change the frequency of testing based on the facilities VOC stack test data base.
- d. The methods to document compliance noted above will establish the facility in compliance with 25 Pa. Code §§129.91 to 129.95 for VOC emissions. Should the VOC emissions at the facility exceed 25 tons per year, the permittee shall be required to comply with 25 PA Code §127.203 and obtain VOC emission offset at the rate of 1.3:1.0.
- E. The nitrogen oxide emissions limits indicated in Condition 4.A.3. and 4.A.4. above apply at all times when municipal waste is being combusted, except during periods of start-up and shutdown, provided, however that the duration of start-up or shutdown shall not exceed three (3) hours per occurrence.

7. Continuous Monitoring Requirements

A. CEM for Criteria Pollutants

Continuous Emission Monitors ("CEM") shall be operated and maintained in accordance with the Department's "Continuous Source Monitoring Manual" (Revised No. 5 - March 1993) (CSM Manual) for the following:

- 3. Nitrogen oxides monitored downstream of the air pollution control equipment.

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CONDITIONS (CONTINUED):

C. Other Continuous Monitoring Requirements

1. Continuous monitoring shall be conducted at the locations approved by the Department for the following:
  - A. Oxygen monitored upstream (wet, unless exempted under condition 5.B. above, and dry) and downstream (dry) of the air pollution control equipment.
- D. Continuous monitoring shall be conducted in accordance with 25 Pa. Code Chapter 139, 40 CFR 60, Subpart Ea and be approved by the Department.
- E. The continuous monitors shall be operated in such a manner as to determine compliance with the applicable limits of Condition 4. of this Operating Permit and to operate the refuse-fired steam generator(s) as required under operating requirement of Condition 5. of this Operating Permit.
- F. For the purpose of compliance with this Operating Permit, the oxygen (dry) content, as monitored upstream of the air pollution control equipment, unless otherwise specified by the Department, shall be used wherever the oxygen content is required to be adjusted to 7% O<sub>2</sub>.
- G. The owner shall install, operate and maintain equipment the Department approves that will bring the facility into compliance with the reporting requirements as stipulated in the Department's CSM Manual, the Compliance Assurance Policy on Municipal Waste Incinerators and the latest amendments to both of the above documents, for the parameters to be monitored continuously as indicated in condition 7 of this Operating Permit on or before twelve (12) months after issuance of the Operating Permit.
- H. The continuous emission monitoring system shall be maintained and operated to achieve the following data availability requirements:

Monitored Pollutant or Parameter

<u>Requirement</u>	Oxygen	NOx
Data Availability:	100% valid hours/day	>=90% valid hours/mo
Valid Hour.	>=90% valid readings (54 min/hr)	>=75% valid readings (45 min.)

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CONDITIONS (CONTINUED):

- L The Department reserves the right to require the owner/operator to install, operate and maintain an uninterruptable power supply which has been approved by the Department, on the continuous monitoring system at the facility. This decision shall be made based on the frequency of power outages, loss of data and the affect on the CEM system.

8. Testing Requirements

- A. An initial source test shall be conducted for:  
12. NO<sub>x</sub> (expressed as NO<sub>2</sub>);  
and 16. Volatile Organic Compounds (VOC).
- B. The permittee may be required to conduct source tests at any time or frequency as may be prescribed by the Department. At a minimum, source tests shall be conducted:
4. For NO<sub>x</sub> - as required by the Department for the initial certification and system performance audit of the continuous emission monitors or to show compliance with emission standards.
- G. Source testing of the ash conditioning room and lime silo fabric collectors shall be conducted upon the Department's request.

9. Start-up Requirements

No solid waste shall be charged into the combustor(s) until equilibrium has been attained in the furnace zones and the temperature at the exit of the superheater. All control equipment shall be operational and functioning properly prior to the introduction of solid waste into the combustor(s).

10. Shutdown Requirements

Shutdown commences with the cessation of charging municipal waste for the express purpose of shutting down the combustor.

During this process, auxiliary burners shall be used to ensure that the temperature does not drop below 1600°F (temperature to be determined as required under Condition 8. D. of the Operating Permit, (after the exit of the superheater)) while any waste material is still being combusted. All control equipment shall be operational and functioning properly until all the solid waste is combusted.

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CONDITIONS (CONTINUED):

15. Record Keeping and Reporting Requirements

- A. The permittee shall maintain a file containing all records and other data that are required to be collected pursuant to the various provisions of this Operating Permit. This file shall include, but not be limited to: all air pollution control system performance evaluation and records of calibration checks, adjustments and maintenance performed on all equipment which is subject to this Operating Permit. All measurements, records and other data required to be maintained by the permittee shall be retained for at least five (5) years following the date on which such measurements, records or data are recorded.
- B. The total amount of supplemental fuel consumed shall be metered and recorded at all times.
- C. The permittee shall submit to the Regional Air Quality Manager three (3) copies of the completed test report, including all operating conditions, for all tests listed in Conditions 8. A. and B. of this Operating Permit on or before ninety (90) days after completion of the test(s) and analyses, but no later than the time frame as established in the Department's Compliance Assurance Policy for Municipal Waste Incinerators and latest amendments.
- D. All CEM reports shall be submitted to the Department within thirty (30) days after each quarter but no later than the time frame established in the Department's latest Continuous Source Monitoring Manual and the Compliance Assurance Policy for Municipal Waste Incinerators, dated July 1989, and latest amendments. The Department reserves the right to require the report submissions in floppy disks with a format acceptable to the Department.
- E. The permittee shall keep hourly, daily, monthly and yearly records of quantities of all solid waste combusted at this facility in a format to be approved by the Department.
- F. The permittee shall provide the Department with access to all continuous emission monitor read-outs via telephone dial-up (modem) from the Department's computer. It will be the permittee's responsibility to provide all hardware, software and funds required to provide this access. The Department shall specify the acquisition configuration.
- G. The permittee shall comply with the record keeping requirements of 40 CFR 60, Section 60.59a.
- H. The permittee shall, at a minimum, keep manual hourly records of the rates of all reagents injected into each municipal waste combustor's selective non-catalytic reduction system and the rate of all activated carbon injected to each combustor's flue gases for each mercury emission control system. The Department reserves the right to waive the above recording requirement. The determination shall be based on review of the permittee's proposal for an alternative recording procedure.

