

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

PSD
ATG
NSPS

OPERATING PERMIT

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>CP-23-0004</u>	Source(s)	<u>Six (6) Mass Burn Type</u>
Owner	<u>Shawmut Bank, Conn. National Assoc.</u>	Air	<u>Municipal Waste Incinerators</u>
Operator	<u>Waste Resource Energy, Inc.</u>	Cleaning	<u></u>
Address	<u>10 Highland Avenue</u> <u>Chester, PA 19013</u>	Device	<u>described herein</u> <u>Delaware County Resource Recovery</u>
Attention	<u>Mr. Mike Johnson</u>	Location	<u>Facility</u> <u>Front & Thurlow Streets</u> <u>City of Chester</u> <u>Delaware 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 approvals issued under 23-340-002, 23-340-002A and 23-340-002C;
 - 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.

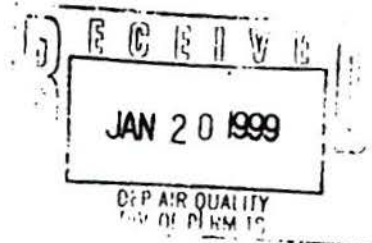
(SEE THE ATTACHED ADDITIONAL CONDITIONS)

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 11/16/95

Joseph A. Feola
Joseph A. Feola
Regional Manager

cc: Central Office
Southeast Regional Office
(KAL)



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Conditions (continued):

3. This Operating Permit is issued to Shawmut Bank, Conn National Associates, owner, and Waste Resource Energy, Inc. ("WRE"), operator, of the Delaware County Resource Recovery Facility.

Source

A municipal waste incinerator energy resource recovery facility as further described in the Plan Approval application 23-340-002C submitted May 3, 1989 and supplemental information submitted. The facility includes the six (6) Westinghouse - O'Connor mass-turn rotary combustors (incinerators) each having a thermal rating of 194 X 10 MM Btu/hr and each rated at 448 tons/day, nominal, of municipal waste having a higher heating value of 5200 Btu per pound.

Control Equipment

The air contaminant emissions from each unit are controlled by individual dry acid gas scrubbers and pulse-jet cleaning type fabric collectors, all as further described in the volume 2 of the Prevention of Significant Deterioration ("PSD") permit application submitted to the Department on May 22, 1987.

5. Stack Emission Limitations

- (4) Nitrogen oxide (NOx) emissions per combustor, expressed as NO₂ shall not exceed 180 ppm_{dv}, on a twenty-four (24) hour daily average, 88.56 pounds per hour corrected to 7% O₂ on a dry basis and 0.42 pounds per 10⁶ Btu. The NOx emission limits indicated above are a result of controlled combustion. This control has been determined by the Department as being Reasonably Available Control Technology ("RACT") for emission of oxides of nitrogen. Compliance with the above emission limit, in conjunction with the testing and reporting requirements of this Operating Permit, will establish the facility in compliance with 25 Pa. Code Chapter 129 Sections 129.91 - 129.95 for NOx emissions. Prior to the reissuance of this operating permit the operator shall, using Department approved methods and through the use of a Department approved continuous emission monitoring system, determine the final NOx emission rate for the combustors to replace the interim NOx emission limitation above.
- (5) Volatile Organic Compound ("VOC") emissions, expressed as total hydrocarbons, shall not exceed 37.6 pounds per hour as a total emission rate for the 6 combustors. The VOC emissions for the total facility, including 6 combustors and 4000 gallon diesel storage tank, shall not exceed 50 tons per year. The VOC emissions limits indicated above for the 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. The fixed roof on the storage tank has also been determined to be RACT. Compliance with the above emission limits, in conjunction with the testing and reporting requirements of the operating Permit, will establish the facility in compliance with 25 Pa. Code Chapter 129 Sections 129.91 - 129.95 for VOC emissions. The owner/operator shall comply with the Special Permit requirements stipulated in Chapter 127 of Article III of the Department's Rules and Regulations if at anytime it is determined that WRE is emitting

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Conditions (continued):

VOC emissions in excess of 50 tons/yr.

- (6) The nitrogen oxide emission limits indicated in condition 5.A.3 and 5.A.4 of this Operating Permit apply at all times when municipal waste is being combusted, except during periods of start-up and shutdown provided the duration of start-up or shutdown shall not exceed three (3) hours per occurrence.

Start-up commences with the introduction of municipal waste to an empty combustor and does not include any warm up period when the combustor is combusting only a fossil fuel or any other auxiliary fuel, approved by the Department, and no municipal waste is being combusted. Shutdown period commences with cessation of charging municipal waste for the express purpose of shutting down the combustor.

8. 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" (Revision No. 5 - March 1993) and latest amendments ("CSM Manual") for the following:

- (3) Nitrogen dioxide monitored downstream of air pollution control equipment.

C. Other Continuous Monitoring Requirements

Continuous monitoring shall be conducted at the locations approved by the Department for the following:

- D. Continuous monitoring shall be conducted in accordance with 25 Pa. Code Chapter 139 and as 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 5 of this Operating Permit.
- F. For the purpose of compliance with this Operating Permit, the oxygen content, as monitored upstream and downstream 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% O₂. The O₂ monitoring downstream from the combustion chamber shall be on a wet and dry basis.

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Conditions (continued):

- I. The continuous emission monitoring system, shall be maintained and operated to achieve the following data availability requirements:

Monitored Pollutant or Parameter

<u>Requirement</u>	<u>O₂</u>	<u>NO_x</u>
Data Availability:	>= 95% valid hours/day	>= 90% valid hours/month
Valid Hour:	>= 75% valid readings (45 min.)	>= 75% valid readings (45 min.)

9. Testing Requirements

- B. The owner/operator 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:

- (2) For NO_x as required for system performance audit of the CEM system.
- (3) For VOC and NO_x every twelve (12) months.

10. Start-up Requirements

No solid waste shall be charged into the incinerator(s) until equilibrium has been attained in the furnace zones, the temperature of the combustion gases reaches 1800°F for 1 second of retention time and the combustor is empty. All control equipment shall be operational and functioning properly prior to the introduction of solid waste into the incinerator(s).

11. Shutdown Requirements

During the process of shut down of the incinerator(s), auxiliary burners shall be used to ensure that the temperature of the combustion gases do not drop below 600°F while any waste material is still being incinerated. All control equipment shall be operational and functioning properly until all the solid waste is incinerated.

16. Record Keeping and Recording Requirements

- A. The owner/operator 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 evaluations, records of calibration checks, and records of 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

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Conditions (continued):

permittee shall be retained for at least five (5) years following the date 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 owner/operator shall submit to the Regional Air Quality Program Manager three (3) copies of all completed test reports, including all operating conditions, for all tests listed in Conditions 9A and B of this Operating permit on or before ninety (90) days after completion of the test(s) and analyses.
- D. All CEM report(s) 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 and later amendments. The Department reserves the right to require the report submissions on floppy disks with a format acceptable to the Department.

APPENDIX A

Municipal Like Residual Waste

The following list of wastes is approvable as Form S waste for burning at DCRRF.

Carpet or fabric scrap waste

Cured resin waste

Foam type waste

Food waste

Fresh air intake filters

Gasket waste (unused)

Labels/packing waste

Non-halogenated plastic waste (polyethylene, polystyrene, polyurethane)

Nylon material waste

Packing/shipping material waste

Paper, cardboard waste

Rubber elastomer waste

Screen waste

Shingle scrap waste

Thermal insulation waste

Personal protective equipment (unused or uncontaminated)

Untreated wood, sawdust and shavings (must be from untreated wood)

Empty containers

Linoleum Waste

Glass Reinforced Plastic

APPENDIX B
Residual Waste

The following list of wastes are acceptable for consideration as Form R wastes for burning at DCRRF.

Form R Residual Wastes

Acidic chemicals (pH <6)

Basic chemicals (pH >8)

Combustible Chemicals

Chemical salts

Carbon residues (decoloring filtering)

Surface coating (solids, semi-solid paints, polishes, adhesives and ink)

Filter aids (diatomaceous earth)

Filter media

Spent dyes

Detergents

Cleaning agents

Off specification products, intermediates

Pharmaceutical waste

Leather wastes

Treated wood waste including particle board

Textile waste (yarn, fabric, fiber and elastic)

Halogenated plastics (PVC, teflon, CPE)

Electronic component waste (off spec semi-conductors, circuit boards)

Agricultural waste (fertilizer, feed supplements)

Photographic waste (film and photographic paper)

Empty containers (which have been processed by a Department approved procedure)

Oil contaminated waste (spent adsorbent and oily rags)

Spent catalysts

Spill residue