



**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

OPERATING PERMIT

Cranston Water Pollution Control Facility

PERMIT NO. RI-40-09

(Renewal date: July 21, 2009)

(Expiration date: July 21, 2014)

Pursuant to the provisions of Air Pollution Control Regulation No. 29, this operating permit is issued to:

**Cranston Water Pollution Control Facility
140 Pettaconsett Ave
Cranston RI 02920**

This permit shall be effective from the date of its issuance. All terms and conditions of the permit are enforceable by USEPA and citizens under the federal Clean Air Act, 42 U.S.C. 7401, et seq., unless specifically designated as not federally enforceable.

**Douglas L. McVay, Acting Chief
Office of Air Resources**

Date of issuance: 07/21/09

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SECTION I. SOURCE SPECIFIC CONDITIONS

A. Requirements for Emissions Units B002, B005, B006 and B007

The following requirements are applicable to:

- Emission Unit B002, which is a 2.1 MMBTU/hr HB Smith Water Tube Boiler, Model No. "Series 28", which burns natural gas.
- Emission Unit B005, which is a 1.08 MMBTU/hr Weil-McLain Water Tube Boiler, Model No. 878, Series 1, which burns natural gas.
- Emission Unit B006, which is a 1.44 MMBTU/hr Jacson and Church Fire Tube Boiler, Model No. JGM 100-4SZOA, which burns natural gas.
- Emission Unit B007, which is a 1.625 MMBTU/hr Captive Air Boiler, Model No. NHMUA5-60-25, which burns natural gas.

1. **Emission Limitations**

a. **Particulates**

The permittee shall not cause or permit the emissions of particulate matter in excess of 0.1 pounds per million BTU actual heat input. [13.2.1]

b. **Opacity**

The permittee shall not emit into the atmosphere, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. **Monitoring Requirements**

- a. On a daily basis, the permittee shall measure the amount of fuel used in B002, B005, B006, and B007. [27.6.9(a), Consent Agreement 95-11-AP(7)(a)]

3. Testing Requirements

a. Particulates

Compliance with the particulate emissions limitations contained in Condition I.A.1.a of this permit, shall be determined by emission testing conducted by the permittee according to Method 5 of 40 CFR 60, Appendix A, or another method approved by the Office of Air Resources and USEPA, shall be used. [13.3.1]

The requirements of particulate emissions testing may be waived if the Director and the USEPA:

- (1) Specifies or approves, in a specific case, the use of a reference method with minor changes in methodology; or
- (2) Approves the use of an equivalent or alternative method the results of which he has determined to be adequate for indicating whether the permittee is in compliance; or
- (3) Finds that the permittee has demonstrated by other means to the Director's and the USEPA's satisfaction that the source is in compliance with the relevant emissions standards. [13.3.3]

In the absence of data from emissions testing, the Director and the USEPA may determine that an emissions unit is or is not in compliance with the emissions limitations of Condition I.A.1.a of this permit based on available information including, but not limited to, type of fuel burned, design of unit, efficiency of air pollution control systems, operating and maintenance procedures, and emissions test results on similar units. [13.3.2]

b. Opacity

Test for determining compliance with the opacity limitations specified in Condition I.A.1.b of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

4. Recordkeeping Requirements

- a. The permittee shall record daily the fuel used in B002, B005, B006, and B007. [Consent Agreement 95-11-AP(7)(a), 27.6.9(a)]

- b. The permittee shall determine, on a monthly basis, no later than fifteen (15) days after the first of each month, the fuel usage and quantity of NO_x emitted from B002, B005, B006, and B007 for the previous twelve (12) month period. [Consent Agreement 95-11-AP(7)(b), 27.6.9(b)]

B. Requirements for Emissions Unit G001

The following requirements are applicable to:

- Emission Unit G001, which is a 1387 HP Waukesha Lean Burn Internal Combustion Engine, Model No. L7042GU, which burns natural gas. G001 is an emergency/standby unit.

1. Emission limitations

a. Opacity

The permittee shall not emit into the atmosphere, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Operating Requirements

- a. G001 shall be operated only as a mechanical or electrical power source when the primary power source has been rendered inoperable. This does not include power interruptions pursuant to an interruptible power service agreement. [27.1.8]
- b. G001 shall be operated less than 500 hours, during any consecutive 12-month period. If the hours of operation for G001 exceeds 500 hours in any 12 month period, that unit shall immediately be in compliance with RACT as specified in APC Regulation No. 27. [27.2.3]

3. Monitoring Requirements

- a. The permittee shall maintain a non-resettable elapsed time meter on G001 to indicate, in cumulative hours, the elapsed engine operating time. [27.6.10(b)]
- b. On a daily basis, the permittee shall measure the amount of fuel used in G001. [27.6.9(a), Consent Agreement 95-11-AP(7)(a)]

4. Testing Requirements

a. Opacity

Tests for determining compliance with the opacity limitations specified in Condition I.B.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

5. Recordkeeping Requirements

- a. On a monthly basis, no later than 5 days after the first of each month, the permittee shall determine and record the hours of operation for G001 for the previous 12 month period. [27.6.10(c)]
- b. The permittee shall record daily the fuel used in G001. [Consent Agreement 95-11-AP(7)(a), 27.6.9(a)]
- c. The permittee shall determine on a monthly basis, no later than fifteen (15) days after the first of each month, the fuel usage and the quantity of NO_x emitted from G001 for the previous twelve (12) month period. [Consent Agreement 95-11-AP(7)(b), 27.6.9(b)]

6. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources, in writing, whenever the hours of operation in any twelve month period exceeds 500 for G001. [27.6.10(d)]

C. Requirements for Emission Unit I001

The following requirements are applicable to

- Emission Unit I001, which is a 14'-3" Crouse Combustion Systems, Inc. Multiple Hearth Sewage Sludge Incinerator, which burns natural gas. I001 is associated with air pollution control device C003 which consists of a DR Technology/Crouse Venturi Scrubber, Model No. P8003 and DR Technology Impingement Tray Scrubber, Model No. P8003.

1. Emission Limitations

a. Nitrogen Oxides (NO_x)

The emission rate of nitrogen oxides discharged to the atmosphere shall not exceed 4.63 pounds per ton of dry sludge input or a maximum of 4.21 lbs/hr,

whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(2)(a)]

b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere shall not exceed 11.45 pounds per ton of dry sludge input or a maximum of 10.4 lbs/hr, whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(2)(b)]

c. Particulate Matter (PM)

(1) The emission rate of particulate matter discharged to the atmosphere shall not exceed 0.85 pounds per ton of dry sludge input or a maximum of 0.77 lbs/hr, whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(2)(c)(1), 12.3.3, 40 CFR 60.152(a)(1)]

(2) The concentration of particulate matter discharged to the atmosphere shall not exceed 0.015 grains per dry standard cubic foot. [Approval Nos. 647, 648, 649 & 1818(A)(2)(c)(2)]

d. Particulate Matter less than 10 microns in diameter (PM₁₀)

The emission rate of particulate matter less than 10 microns in diameter discharged to the atmosphere shall not exceed 0.80 pounds per ton of dry sludge input or a maximum of 0.73 lbs/hr, whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(2)(d)]

e. Sulfur Dioxide (SO₂)

The emission rate of sulfur dioxide discharged to the atmosphere shall not exceed 2.14 pounds per ton of dry sludge input or a maximum of 1.95 lbs/hr, whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(2)(e)]

f. Volatile Organic Compounds (VOCs)

(1) The concentration of total hydrocarbons in the exit gas from the incinerator shall not exceed 100 ppmv, on a dry basis, corrected to 7% O₂ (24-hour average). [Approval Nos. 647, 648, 649 & 1818(A)(2)(f)(1)]

(2) The emission rate of total volatile organic compounds discharged to the atmosphere shall not exceed 2.88 lbs/hr. [Approval Nos. 647, 648, 649 & 1818(A)(2)(f)(2)]

g. Opacity

Visible emissions discharged into the atmosphere shall not exceed 10% opacity (six-minute average) [1.2] while sludge is being charged to the incinerator from the sludge metering device. Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. This opacity standard shall not apply during periods of startup.

During startup, visible emissions discharged into the atmosphere shall not exceed 20% opacity (six-minute average) while sludge is being charged to the incinerator from the sludge metering device. Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. Startup shall be defined as that period of time from initiation sludge being charged to the incinerator until the unit reaches steady state operation. This period of time shall not exceed 4 hours. [Approval Nos. 647, 648, 649 & 1818(A)(2)(g), 1.4, 40 CFR 60.152(a)(2)]

2. Operating Requirements

- a. All emissions generated from I001 shall be captured, contained and routed to C003 for treatment prior to discharge to the atmosphere. [Approval Nos. 647, 648, 649 & 1818(B)(1)]
- b. I001 shall be operated according to its design specifications whenever it is charging sludge or is emitting air contaminants. [Approval Nos. 647, 648, 649 & 1818(B)(2)]
- c. The permittee shall limit the quantity of sludge input to I001 to 7,972 dry tons or less, for any consecutive 12-month period. [Approval Nos. 647, 648, 649 & 1818(B)(4)]
- d. The exhaust temperature in I001 shall be maintained at or above 1200° F (24-hr average), as measured in the duct going from Hearth 1 to the unfired external combustion chamber. [Approval Nos. 647, 648, 649 & 1818(B)(5)]
- e. The flue gas recirculation system for I001 shall be in full operation whenever the incinerator is in operation and is being charged with sludge. Any malfunction of the flue gas recirculation system shall be treated as a malfunction of an air pollution control system under I.C.2.h of this permit. [Approval Nos. 647, 648, 649 & 1818(B)(6)]
- f. The sewage sludge incinerated in I001 must meet the following specifications:

- (1) The sewage sludge filter cake moisture content shall be between 70 and 77 percent.
 - (2) The scum/grease feed rate shall not exceed 3336 lb/day from I001 and I002 combined. [Approval Nos. 647, 648, 649 & 1818(B)(7)]
- g. C003 shall be operated according to its design specifications whenever I001 is in operation or is emitting air contaminants. [16.2, 40 CFR 61.12(c)]
- h. In the case of a malfunction of the flue gas recirculation system, C003, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of the flue gas recirculation system, C003 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate I001 at any time beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following:
- (1) Identification of the specific air pollution control system and source on which it is installed;
 - (2) The expected period of time that the air pollution control system will be malfunctioning or out of service;
 - (3) The nature and quantity of air contaminants likely to be emitted during said period;
 - (4) Measures that will be taken to minimize the length of said period;
 - (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [Approval Nos. 647, 648, 649 & 1818(G)(1)(a-e), 16.3(a-e)]
- i. Malfunction means a sudden and unavoidable breakdown of process or control equipment. The permittee may seek to establish that a malfunction of any air pollution control system that would result in noncompliance with any of the terms of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the permittee must demonstrate to the Office of Air Resources that:
- (1) The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation, or operator error;

- (2) The malfunction was not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- (3) Repairs were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable.
- (4) All possible steps were taken to minimize emissions during the period of time that the repairs were performed.
- (5) Emissions during the period of time that the repairs were performed will not:
 - (a) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and
 - (b) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard.
- (6) The reasons that it would be impossible or impractical to cease the source operation during said period.
- (7) The permittee's action in response to the excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence.

This demonstration must be provided to the Office of Air Resources, in writing, within two working days of the time when the malfunction occurred and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The permittee shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction. [Approval Nos. 647, 648, 649 & 1818(G)(2)(a-g)]

- j. The permittee shall immediately take steps to resolve any incidence of smoke emissions in excess of twenty percent (20%) opacity and will shut down I001 if the immediate actions fail to eliminate the non-complying emission within two (2) minutes. [Consent Agreement 89-8- AP(8)] **Not Federally Enforceable**

3. Monitoring Requirements

- a. The permittee shall install, calibrate, maintain and operate equipment to measure the mass of sludge charged to I001 as follows:
 - (1) The incinerator to which each centrifuge is delivering sludge will be determined and recorded.
 - (2) The cumulative volumetric flow of liquid sludge being fed to each centrifuge will be continuously measured and recorded. The flow measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. If a centrifuge output is changed from one incinerator to the other, the subsequent volumetric flow will be assigned to the second incinerator.
 - (3) The liquid sludge will be sampled three times per day. The three samples will be composited and analyzed for dry sludge content using "209 F, Method for Solid and Semisolid Samples.
 - (4) The dry sludge content and the volume of liquid sludge delivered to each incinerator each day will be used to calculate the mass of sludge charged to each incinerator. [Approval Nos. 647, 648, 649 & 1818(C)(1)(a)-(d), 40 CFR 60.153(a)(1)]
- b. The permittee shall provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained. [Approval Nos. 647, 648, 649 & 1818(C)(2), 40 CFR 60.153(a)(2)]
- c. The permittee shall collect and analyze a grab sample of the sludge feed to I001 once per day. The dry sludge content and volatile solids content of the sample shall be analyzed using "209 F, Method for Solid and Semisolid Samples". [Approval Nos. 647, 648, 649 & 1818(C)(3), 40 CFR 60.153(b)(5), 40 CFR 60.154(b)(5), 40 CFR 60.153(c)(3)]
- d. The permittee shall calibrate, maintain and operate a monitoring device that continuously measures the pressure drop of the gas flow through the combined scrubber system of C003. The device used to monitor scrubber pressure drop shall be certified by the manufacturer to be accurate within 250 pascals (± 1 inch water gage) and shall be calibrated on an annual basis in accordance with the manufacturer's instructions. [Approval Nos. 647, 648, 649 & 1818(C)(4), 40 CFR 60.153(b)(1), 29.6.3(a) 40 CFR 64]
- e. The permittee shall calibrate, maintain and operate a monitoring device that continuously measures the scrubber water flow rate to C003. The device used to monitor scrubber water flow rate shall be certified by the

manufacturer to be accurate within $\pm 5\%$ over its operating range and shall be calibrated on an annual basis in accordance with the manufacturer's instructions. [Approval Nos. 647, 648, 649 & 1818(C)(5), 29.6.3(a) 40 CFR 64]

- f. The permittee shall calibrate, maintain and operate a monitoring device that continuously measures the oxygen content of the exhaust gas in I001. The oxygen monitor shall be located upstream of any rabble shaft cooling air inlet into the exhaust gas stream, fan, ambient air recirculation damper, or any other source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of ± 5 percent over its operating range, and shall be calibrated according to method(s) prescribed by the manufacturer at least once each 24-hour operating period. [Approval Nos. 647, 648, 649 & 1818(C)(6), 40 CFR 60.153(b)(2), 29.6.3(b)]
- g. The permittee shall calibrate, maintain and operate temperature measuring devices at every hearth in I001. A minimum of one thermocouple shall be installed in each hearth in the cooling and drying zones, and a minimum of two thermocouples shall be installed in each hearth in the combustion zone of I001. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. [Approval Nos. 647, 648, 649 & 1818(C)(7), 40 CFR 60.153(b)(3), 29.6.3(b)]
- h. The permittee shall calibrate, maintain and operate a device for measuring the fuel flow to I001. The flow measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. [Approval Nos. 647, 648, 649 & 1818(C)(8), 40 CFR 60.153(b)(4), 29.6.3(b)]
- i. On a daily basis, the permittee shall measure the amount of fuel used in each incinerator. [Approval Nos. 647, 648, 649 & 1818(C)(9), Consent Agreement 95-11-AP(7)(a), 27.6.9(a)]
- j. The permittee shall calibrate, maintain and operate a device for measuring the temperature in the incinerator exhaust in the duct going from Hearth 1 to the unfired external combustion chamber of I001 during all periods of operation. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. [Approval Nos. 647, 648, 649 & 1818(C)(10), 29.6.3(b)]
- k. The permittee shall calibrate, maintain and operate an instrument that continuously measures and records the total hydrocarbon concentration in the incinerator exhaust stack during all periods of operation. The total hydrocarbon instrument shall employ a flame ionization detector; shall have a heated sampling line maintained at a temperature of 150 degrees

Celsius or higher at all times and shall be calibrated at least once every 24-hour operating period using propane. [Approval Nos. 647, 648, 649 & 1818(C)(11), 29.6.3(b)]

- l. Once per month, an as-fired, sludge sample shall be taken and analyzed for the following metals: antimony, arsenic, beryllium, cadmium, chromium (total and hexavalent), cobalt, copper, lead, manganese, mercury, molybdenum, nickel, selenium, vanadium and zinc. No less than three samples of sludge shall be taken in the course of the day and composited into a single sample for analysis. The results of these analyses shall be submitted to the Office of Air Resources no later than 60 days after collection of the sample. [Approval Nos. 647, 648, 649 & 1818(C)(12)]
- m. The permittee shall conduct a minimum of one visible emissions test for each four hour period of operation for each incinerator on any day that the incinerator is operating. A visible emissions test shall consist of a minimum of six minutes of opacity observations performed per 40 CFR 60, Appendix A, Method 9. All observers must qualify as per 40 CFR 60, Appendix A, Method 9.

If the observed opacity exceeds 10 percent, corrective action shall be undertaken and the visible emissions test shall continue until a period of six minutes of opacity observations less than 10 percent is achieved. [Approval Nos. 647, 648, 649 & 1818(C)(13)]

4. Testing Requirements

- a. Five-year Performance Test

Beginning in the calendar year 2008, the permittee shall conduct an emission test every five years for particulate matter, particulate matter less than 10 microns in diameter, sulfur dioxide, nitrogen oxides, carbon monoxide and each listed toxic air contaminant in Table 1. [Approval Nos. 647, 648, 649 & 1818(D)(2)]

- b. Annual Performance Test

Beginning in the calendar year 2009, the permittee shall conduct an emission test each year for particulate matter, particulate matter less than 10 microns in diameter, sulfur dioxide, nitrogen oxides, carbon monoxide and each listed toxic air contaminant in Table 1 where measured emissions (lb/hr, lb/day or lb/year) from the most recent five-year performance test is greater than 10% of allowable emissions. The requirement for an annual performance test does not apply in the years when a five-year performance test is required. [Approval Nos. 647, 648, 649 & 1818(D)(3)]

- c. An emission testing protocol shall be submitted to the Office of Air Resources for review and approval prior to the performance of any emissions tests. The permittee shall provide the Office of Air Resources at least 60 days prior notice of any emissions test. [Approval Nos. 647, 648, 649 & 1818(D)(4)]
- d. All test procedures used for emissions testing shall be conducted in accordance with Appendix A of 40 CFR 60 or another method approved by the Office of Air Resources and U.S. Environmental Protection Agency (EPA) prior to the performance of any emissions tests. [Approval Nos. 647, 648, 649 & 1818(D)(5)]
- e. The permittee shall install any and all test ports or platforms necessary to conduct the required testing, provide safe access to any platforms, and provide the necessary utilities for sampling and testing equipment. [Approval Nos. 647, 648, 649 & 1818(D)(6)]
- f. All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitations. [Approval Nos. 647, 648, 649 & 1818(D)(7)]
- g. The permittee shall notify the Office of Air Resources at least 60 days before the tests are scheduled in order to allow for testing to be observed by an Office of Air Resources representative. [Approval Nos. 647, 648, 649 & 1818(D)(8)]
- h. A final report of the results of any compliance testing shall be submitted to the Office of Air Resources no later than 60 days following completion of testing. [Approval Nos. 647, 648, 649 & 1818(D)(9)]
- i. All emissions testing must be observed by the Office of Air Resources or its authorized representatives to be considered acceptable, unless the Office of Air Resources provides authorization to the owner/operator to conduct the testing without an observer present. [Approval Nos. 647, 648, 649 & 1818(D)(10)]
- j. **Particulate Matter**
 - (1) The permittee shall determine compliance with the particulate matter emission limitations contained in Condition I.C.1.c(1) of this permit by following the procedures in 40 CFR 60.154(b)(1)-(5): [12.5, 40 CFR 60.154(b)(1)-(5)]
 - (2) Emission testing shall be conducted by the permittee according to Method 5 of Appendix A to 40 CFR 60, or by another method that

has prior approval of or is required by the Director. [12.5(a)-(c), 40 CFR 60.154(a)]

k. **Opacity**

Tests for determining compliance with the opacity limitations specified in Condition I.C.1.g of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2, 40 CFR 60.154(b)(6)]

l. **Mercury**

Compliance with the mercury emission limitation in Condition I.H.1.c shall be determined in accordance with the procedures set forth in either 40 CFR 61.53(d) or 40 CFR 61.54. [40 CFR 61.53(d), 40 CFR 61.54(a)-(f)]

m. **Beryllium**

Compliance with the beryllium emission limitation in Condition I.H.1.c shall be determined in accordance with the procedures set forth in 40 CFR 61.33. [40 CFR 61.33(a)-(d)]

5. Recordkeeping Requirements

a. The permittee shall continuously record the following information during all periods of operation of I001:

- (1) The mass of the sludge charged to I001. [Approval Nos. 647, 648, 649 & 1818(E)(1)(a), 40 CFR 60.153(a)(1), 40 CFR 60.153(c)(3)]
- (2) The combustion zone temperatures of I001. [Approval Nos. 647, 648, 649 & 1818(E)(1)(b), 40 CFR 60.153(b)(3), 40 CFR 60.153(c)(3), 29.6.3(b)]
- (3) The fuel flow to I001 [Approval Nos. 647, 648, 649 & 1818(E)(1)(c), 40 CFR 60.153(b)(4), 40 CFR 60.153(c)(3), 29.6.3(b)].

- (4) The pressure drop of the gas flow through the combined wet scrubber system (C003) serving I001. [Approval Nos. 647, 648, 649 & 1818(E)(1)(d), 40 CFR 60.153(b)(1), 40 CFR 60.153(c)(1), 29.6.3(a) 40 CFR 64]
 - (5) The scrubber water flow rate through C003. [Approval Nos. 647, 648, 649 & 1818(E)(1)(e), 29.6.3(a) 40 CFR 64]
 - (6) The oxygen content of I001's exhaust. [Approval Nos. 647, 648, 649 & 1818(E)(1)(f), 40 CFR 60.153(b)(2), 40 CFR 60.153(c)(2), 29.6.3(b)]
 - (7) The I001 exhaust temperature. [Approval Nos. 647, 648, 649 & 1818(E)(1)(g), 29.6.3(b)]
- b. The permittee shall record daily the fuel used in I001. [Approval Nos. 647, 648, 649 & 1818(E)(2), Consent Agreement 95-11-AP(7)(a), 27.6.9(a)]
 - c. The permittee shall maintain records of the quantities of sludge received, the source of the sludge, and the date the sludge was received. [Approval Nos. 647, 648, 649 & 1818(E)(3)]
 - d. On a monthly basis, no later than fifteen (15) days after the first of each month, the permittee shall determine the quantity of NO_x emitted from I001 for the previous twelve (12) month period. [Approval Nos. 647, 648, 649 & 1818(E)(4), Consent Agreement 95-11-AP(7)(b), 27.6.9(b)]
 - e. The permittee shall maintain a record of the total solids and volatile solids content of the sludge charged to I001. [Approval Nos. 647, 648, 649 & 1818(E)(5), 40 CFR 60.153(b)(5), 40 CFR 60.153(c)(3)]
 - f. The permittee shall determine compliance with the sludge throughput limitation contained in Conditions I.C.2.c of this permit by using the total solids content and hourly sludge feed rates to calculate the dry tons of sludge charged to I001 during the previous 12 months. This calculation shall be performed each month, no later than 15 days after the first of each month. [Approval Nos. 647, 648, 649 & 1818(E)(6)]
 - g. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of I001, any malfunction of C003, or any periods during which a continuous monitoring system or monitoring device is inoperative. [Approval Nos. 647, 648, 649 & 1818(E)(7), 40 CFR 60.7(b)]

- h. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring devices and performance testing measurements; all CMS calibration checks; adjustments and maintenance performance on these systems or devices; and all other information required shall be recorded in a permanent form suitable for inspection. [Approval Nos. 647, 648, 649 & 1818(E)(8), 40 CFR 60.7(f)]

6. Reporting Requirements

- a. The permittee shall submit to the Office, semi-annually, a report in writing, which contains the following:
 - (1) A record of average scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the combined system of C003 was less than 17.3 inches (the average scrubber pressure drop measured during the November 2, 2006 performance test minus a 30% percent reduction in scrubber pressure drop). [40 CFR 60.155 (a)(1)(i), Approval Nos. 647, 648, 649 & 1818(E)(16)(a)(1), 29.6.3(a) 40 CFR 64]
 - (2) A record of average oxygen content in the exhaust gas of I001 for each period of 1-hour duration or more that the oxygen content of the incinerator exhaust exceeds 9.6 percent (3% increase from the average oxygen content during the November 2, 2006 performance tests. [40 CFR 60.155(a)(2), Approval Nos. 647, 648, 649 & 1818(E)(16)(b), 29.6.3(b)]
 - (3) For subsequent years, the permittee shall use the reporting thresholds for pressure and oxygen from the most recent stack test as reported by Conditions I.C.6.h-i of this permit. [29.6.3(b)]
- b. For each calendar day for which a report is required under condition I.C.6.a(1) or (2), the permittee shall include the following information in the report:
 - (1) Combined scrubber system pressure drop averaged over each 1-hour operating period. [40 CFR 60.155(b)(1), Approval Nos. 647, 648, 649 & 1818(E)(16)(c)(1), 29.6.3(a) 40 CFR 64]
 - (2) Oxygen content in I001 exhaust averaged over each 1-hour operating period. [40 CFR 60.155(b)(2), Approval Nos. 647, 648, 649 & 1818(E)(16)(c)(2), 29.6.3(b)]
 - (3) Temperatures of every hearth in I001 averaged over each 1-hour operating period. [40 CFR 60.155(b)(3), Approval Nos. 647, 648, 649 & 1818(E)(16)(c)(3), 29.6.3(b)]

- (4) The rate of sludge charged to I001 averaged over each 1-hour operating period. [40 CFR 60.155(b)(4), Approval Nos. 647, 648, 649 & 1818(E)(16)(c)(4)]
 - (5) I001 fuel use averaged over each 8-hour operating period. [40 CFR 60.155(b)(5), Approval Nos. 647, 648, 649 & 1818(E)(16)(c)(5)]
 - (6) Moisture and volatile solids content of the daily grab sample of sludge charged to I001. [40 CFR 60.155(b)(6), Approval Nos. 647, 648, 649 & 1818(E)(16)(c)(6)]
- c. The permittee shall submit monthly reports to the Office of Air Resources summarizing operating conditions, incidences of non-compliance, and progress toward compliance. Reports shall include but not be limited to:
- (1) Day/hours of operation,
 - (2) Non-complying incidents and corrective actions taken,
 - (3) Major maintenance projects,
 - (4) Capital improvements, and
 - (5) Copies of any reports by consultants hired by the permittee to recommend system improvements.

Reporting shall continue until the permittee is notified by the Office of Air Resources that the emissions are in compliance with Air Pollution Control Regulations. [Consent Agreement 89-8-AP(7)] **Not Federally Enforceable**

- d. The permittee shall notify the Office of Air Resources within 15 days whenever the dry tons of sludge charged to I001 exceeds 7,972 dry tons during any consecutive 12-month period. [Approval Nos. 647, 648, 649 & 1818(E)(12)(b)]
- e. The permittee must notify the Office of Air Resources no later than 24 hours after an exceedance of any emission limitation is discovered. Notification shall include: [Approval Nos. 647, 648, 649 & 1818(E)(15)]
- (1) Identification of the emission limitation exceeded
 - (2) Suspected reason for the exceedance

- (3) Corrective action taken or to be taken
- (4) Anticipated length of the exceedance
- f. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this section of the permit or any other applicable air pollution control rules and regulations for I001. [Approval Nos. 647, 648, 649 & 1818(E)(17)]
- g. The permittee shall notify the Office of Air Resources whenever the total scrubber water flow rate to C003 is less than 440 gallons per minute. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2 [29.6.3(a) 40 CFR 64]
- h. The permittee shall include with each stack test report required under Condition I.C.4.h, the average scrubber pressure drop measured during the test and the average scrubber pressure drop measured during the test minus a 30% percent reduction in scrubber pressure drop. The average scrubber pressure drop measured during the most recent performance test minus a 30% percent reduction in scrubber pressure drop shall be the reporting threshold in Condition I.C.6.a(1). [29.6.3(a) 40 CFR 64]
- i. The permittee shall include with each stack test report required under Condition I.C.4.h, the average oxygen content in the exhaust gas of I001 during the performance test and 3% increase from the average oxygen content in the exhaust gas of I001 during the performance test. The 3% increase from the average oxygen content during the most recent performance test shall be the reporting threshold in Condition I.C.6.a(2). [29.6.3(b)]

7. Other Requirements

- a. To the extent consistent with the requirements of this section of the permit and applicable federal and state laws, I001 shall be designed, constructed and operated in accordance with the representation of the facility in the preconstruction permit application prepared by ESS Group, Inc., dated 26 November 2003 and any revisions. [Approval Nos. 647, 648, 649 & 1818(F)(1)]
- b. I001 is subject to the requirements of the Federal New Source Performance Standard 40 CFR 60 Subpart A, "General Provisions" and Subpart O, "Standards of Performance for Sewage Treatment Plants" and the National Emission Standard for Hazardous Air Pollutants 40 CFR 61 Subpart A, "General Provisions", Subpart C, "National Emission Standard for Beryllium", and Subpart E, "National Emission Standard for Mercury."

Compliance with all applicable provisions therein is required, unless otherwise stated in this permit. [Approval Nos. 647, 648, 649 & 1818(F)(2)]

- c. At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source. [Approval Nos. 647, 648, 649 & 1818(F)(4)]

- d. The Office of Air Resources may reopen and revise this permit if it determines that:
 - (1) a material mistake was made in establishing the operating restrictions; or,
 - (2) inaccurate emission factors were used in establishing the operating restrictions; or,
 - (3) emission factors have changed as a result of stack testing or emissions monitoring.
 - (4) the PM-10 emission limitations in Condition I.C.1.d of this permit are not achievable. Determination of whether the emission limitations are achievable will be based on information available to the Office of Air Resources which may include, but is not limited to, stack testing results for the two incinerators in this permit, stack testing results for other similar incinerators and review of the operation and maintenance of the air pollution control systems. [Approval Nos. 647, 648, 649 & 1818(F)(6)]

- e. Operation of I001 as a regional sludge disposal facility does not relieve the permittee from compliance with applicable air pollution control rules and regulations. [Letter dated 4 October 1989 from James Fester of RIDEM to Raymond Azor of the City of Cranston]

D. Requirements for Emission Unit I002

The following requirements are applicable to

- Emission Unit I002, which is an 18'-9" Crouse Combustion Systems, Inc. Multiple Hearth Sewage Sludge Incinerator, which burns natural gas. I002 is associated with air pollution control devices C006 is an EnviroCare Systems VenturiPak Wet Scrubbing system.

1. Emission Limitations

a. Nitrogen Oxides (NO_x)

The emission rate of nitrogen oxides discharged to the atmosphere shall not exceed 4.63 pounds per ton of dry sludge input or a maximum of 9.72 lbs/hr, whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(1)(a)]

b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere shall not exceed 26.64 pounds per ton of dry sludge input or a maximum of 55.94 lbs/hr, whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(1)(b)]

c. Particulate Matter (PM)

(1) The emission rate of particulate matter discharged to the atmosphere shall not exceed 0.85 pounds per ton of dry sludge input or a maximum of 1.79 lbs/hr, whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(1)(c)(1), 12.3.3, 40 CFR 60.152(a)(1)]

(2) The concentration of particulate matter discharged to the atmosphere shall not exceed 0.015 grains per dry standard cubic foot. [Approval Nos. 647, 648, 649 & 1818(A)(1)(c)(2)]

d. Particulate Matter less than 10 microns in diameter (PM₁₀)

The emission rate of particulate matter less than 10 microns in diameter discharged to the atmosphere shall not exceed 0.80 pounds per ton of dry sludge input or a maximum of 1.68 lbs/hr, whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(1)(d)]

e. Sulfur Dioxide (SO₂)

The emission rate of sulfur dioxide discharged to the atmosphere shall not exceed 2.31 pounds per ton of dry sludge input or a maximum of 4.85 lbs/hr, whichever is more stringent. [Approval Nos. 647, 648, 649 & 1818(A)(1)(e)]

f. Volatile Organic Compounds (VOCs)

(1) The concentration of total hydrocarbons in the exit gas from the incinerator shall not exceed 100 ppmv, on a dry basis, corrected to 7% O₂ (24-hour average). [Approval Nos. 647, 648, 649 & 1818(A)(1)(f)(1)]

(2) The emission rate of total volatile organic compounds discharged to the atmosphere shall not exceed 6.97 lbs/hr. [Approval Nos. 647, 648, 649 & 1818(A)(1)(f)(2)]

g. Opacity

Visible emissions discharged into the atmosphere shall not exceed 10% opacity (six-minute average) [1.2] while sludge is being charged to the incinerator from the sludge metering device. Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. This opacity standard shall not apply during periods of startup.

During startup, visible emissions discharged into the atmosphere shall not exceed 20% opacity (six-minute average) while sludge is being charged to the incinerator from the sludge metering device. Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. Startup shall be defined as that period of time from initiation sludge being charged to the incinerator until the unit reaches steady state operation. This period of time shall not exceed 4 hours. [Approval Nos. 647, 648, 649 & 1818(A)(1)(g), 1.4, 40 CFR 60.152(a)(2)]

2. Operating Requirements

- a. All emissions generated from I002 shall be captured, contained and routed to C006 for treatment prior to discharge to the atmosphere. [Approval Nos. 647, 648, 649 & 1818(B)(1)]
- b. I002 shall be operated according to its design specifications whenever it is charging sludge or is emitting air contaminants. [Approval Nos. 647, 648, 649 & 1818(B)(2)]
- c. The permittee shall limit the quantity of sludge input to I002 to 16,622 dry tons or less, for any consecutive 12-month period. [Approval Nos. 647, 648, 649 & 1818(B)(3)]
- d. The exhaust temperature in I002 shall be maintained at or above 1200° F (24-hr average), as measured in the duct going from Hearth 1 to the unfired external combustion chamber. [Approval Nos. 647, 648, 649 & 1818(B)(5)]
- e. The flue gas recirculation system for I002 shall be in full operation whenever the incinerator is in operation and is being charged with sludge. Any malfunction of the flue gas recirculation system shall be treated as a malfunction of an air pollution control system under I.D.2.h of this permit. [Approval Nos. 647, 648, 649 & 1818(B)(6)]
- f. The sewage sludge incinerated in I002 must meet the following specifications:
 - (1) The sewage sludge filter cake moisture content shall be between 70 and 77 percent.
 - (2) The scum/grease feed rate shall not exceed 3336 lb/day from I001 and I002 combined. [Approval Nos. 647, 648, 649 & 1818(B)(7)]
- g. C006 shall be operated according to their design specifications whenever I002 is in operation or is emitting air contaminants. [16.2, 40 CFR 61.12(c)]
- h. In the case of a malfunction of the flue gas recirculation system and/or C006, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of the flue gas recirculation system and/or C006 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate I002 at any time beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following:

- (1) Identification of the specific air pollution control system and source on which it is installed;
 - (2) The expected period of time that the air pollution control system will be malfunctioning or out of service;
 - (3) The nature and quantity of air contaminants likely to be emitted during said period;
 - (4) Measures that will be taken to minimize the length of said period;
 - (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [Approval Nos. 647, 648, 649 & 1818(G)(1)(a-e), 16.3(a-e)]
- i. Malfunction means a sudden and unavoidable breakdown of process or control equipment. The permittee may seek to establish that a malfunction of any air pollution control system that would result in noncompliance with any of the terms of this permit or any other applicable air pollution control rules and regulations was due to unavoidable increases in emissions attributable to the malfunction. To do so, the permittee must demonstrate to the Office of Air Resources that:
- (1) The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation, or operator error;
 - (2) The malfunction was not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
 - (3) Repairs were performed in an expeditious fashion. Off-shift labor and overtime should be utilized, to the extent practicable, to ensure that such repairs were completed as expeditiously as practicable.
 - (4) All possible steps were taken to minimize emissions during the period of time that the repairs were performed.
 - (5) Emissions during the period of time that the repairs were performed will not:
 - (a) Cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by Air Pollution Control Regulation No. 22 and any Calculated Acceptable Ambient Levels; and

- (b) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard.
- (6) The reasons that it would be impossible or impractical to cease the source operation during said period.
- (7) The permittee's action in response to the excess emissions were documented by properly signed, contemporaneous operating logs or other relevant evidence.

This demonstration must be provided to the Office of Air Resources, in writing, within two working days of the time when the malfunction occurred and contain a description of the malfunction, any steps taken to minimize emissions and corrective actions taken.

The permittee shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction. [Approval Nos. 647, 648, 649 & 1818(G)(2)(a-g)]

- j. The permittee shall immediately take steps to resolve any incidence of smoke emissions in excess of twenty percent (20%) opacity and will shut down I002 if the immediate actions fail to eliminate the non-complying emission within two (2) minutes. [Consent Agreement 89-8- AP(8)] **Not Federally Enforceable**

3. Monitoring Requirements

- a. The permittee shall install, calibrate, maintain and operate equipment to measure the mass of sludge charged to I002 as follows:
 - (1) The incinerator to which each centrifuge is delivering sludge will be determined and recorded.
 - (2) The cumulative volumetric flow of liquid sludge being fed to each centrifuge will be continuously measured and recorded. The flow measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. If a centrifuge output is changed from one incinerator to the other, the subsequent volumetric flow will be assigned to the second incinerator.
 - (3) The liquid sludge will be sampled three times per day. The three samples will be composited and analyzed for dry sludge content using "209 F, Method for Solid and Semisolid Samples.
 - (4) The dry sludge content and the volume of liquid sludge delivered to each incinerator each day will be used to calculate the mass of sludge

charged to each incinerator. [Approval Nos. 647, 648, 649 & 1818(C)(1)(a)-(d), 40 CFR 60.153(a)(1)]

- b. The permittee shall provide access to the sludge charged so that a well-mixed representative grab sample of the sludge can be obtained. [Approval Nos. 647, 648, 649 & 1818(C)(2), 40 CFR 60.153(a)(2)]
- c. The permittee shall collect and analyze a grab sample of the sludge feed to I002 once per day. The dry sludge content and volatile solids content of the sample shall be analyzed using “209 F, Method for Solid and Semisolid Samples”. [Approval Nos. 647, 648, 649 & 1818(C)(3), 40 CFR 60.153(b)(5), 40 CFR 60.154(b)(5), 40 CFR 60.153(c)(3)]
- d. The permittee shall calibrate, maintain and operate a monitoring device that continuously measures the pressure drop of the gas flow through the combined scrubber system of C006. The device used to monitor scrubber pressure drop shall be certified by the manufacturer to be accurate within 250 pascals (± 1 inch water gage) and shall be calibrated on an annual basis in accordance with the manufacturer's instructions. [Approval Nos. 647, 648, 649 & 1818(C)(4), 40 CFR 60.153(b)(1), 29.6.3(a) 40 CFR 64]
- e. The permittee shall calibrate, maintain and operate a monitoring device that continuously measures the scrubber water flow rate to C006. The device used to monitor scrubber water flow rate shall be certified by the manufacturer to be accurate within $\pm 5\%$ over its operating range and shall be calibrated on an annual basis in accordance with the manufacturer's instructions. [Approval Nos. 647, 648, 649 & 1818(C)(5), 29.6.3(a) 40 CFR 64]
- f. The permittee shall calibrate, maintain and operate a monitoring device that continuously measures the oxygen content of the exhaust gas in I002. The oxygen monitor shall be located upstream of any rabble shaft cooling air inlet into the exhaust gas stream, fan, ambient air recirculation damper, or any other source of dilution air. The oxygen monitoring device shall be certified by the manufacturer to have a relative accuracy of ± 5 percent over its operating range, and shall be calibrated according to method(s) prescribed by the manufacturer at least once each 24-hour operating period. [Approval Nos. 647, 648, 649 & 1818(C)(6), 40 CFR 60.153(b)(2), 29.6.3(b)]
- g. The permittee shall calibrate, maintain and operate temperature measuring devices at every hearth in I002. A minimum of one thermocouple shall be installed in each hearth in the cooling and drying zones, and a minimum of two thermocouples shall be installed in each hearth in the combustion zone of I002. Each temperature measuring device shall be certified by the

manufacturer to have an accuracy of ± 5 percent over its operating range. [Approval Nos. 647, 648, 649 & 1818(C)(7), 40 CFR 60.153(b)(3), 29.6.3(b)]

- h. The permittee shall calibrate, maintain and operate a device for measuring the fuel flow to I002. The flow measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. [Approval Nos. 647, 648, 649 & 1818(C)(8), 40 CFR 60.153(b)(4), 29.6.3(b)]
- i. On a daily basis, the permittee shall measure the amount of fuel used in each incinerator. [Approval Nos. 647, 648, 649 & 1818(C)(9), Consent Agreement 95-11-AP(7)(a), 27.6.9(a)]
- j. The permittee shall calibrate, maintain and operate a device for measuring the temperature in the incinerator exhaust in the duct going from Hearth 1 to the unfired external combustion chamber of I002 during all periods of operation. Each temperature measuring device shall be certified by the manufacturer to have an accuracy of ± 5 percent over its operating range. [Approval Nos. 647, 648, 649 & 1818(C)(10), 29.6.3(b)]
- k. The permittee shall calibrate, maintain and operate an instrument that continuously measures and records the total hydrocarbon concentration in the incinerator exhaust stack during all periods of operation. The total hydrocarbon instrument shall employ a flame ionization detector; shall have a heated sampling line maintained at a temperature of 150 degrees Celsius or higher at all times and shall be calibrated at least once every 24-hour operating period using propane. [Approval Nos. 647, 648, 649 & 1818(C)(11), 29.6.3(b)]
- l. Once per month, an as-fired, sludge sample shall be taken and analyzed for the following metals: antimony, arsenic, beryllium, cadmium, chromium (total and hexavalent), cobalt, copper, lead, manganese, mercury, molybdenum, nickel, selenium, vanadium and zinc. No less than three samples of sludge shall be taken in the course of the day and composited into a single sample for analysis. The results of these analyses shall be submitted to the Office of Air Resources no later than 60 days after collection of the sample. [Approval Nos. 647, 648, 649 & 1818(C)(12)]
- m. The permittee shall conduct a minimum of one visible emissions test for each four hour period of operation for each incinerator on any day that the incinerator is operating. A visible emissions test shall consist of a minimum of six minutes of opacity observations performed per 40 CFR 60, Appendix A, Method 9. All observers must qualify as per 40 CFR 60, Appendix A, Method 9.

If the observed opacity exceeds 10 percent, corrective action shall be undertaken and the visible emissions test shall continue until a period of six minutes of opacity observations less than 10 percent is achieved. [Approval Nos. 647, 648, 649 & 1818(C)(13)]

4. Testing Requirements

a. Five-year Performance Test

Beginning in the calendar year 2008, the permittee shall conduct an emission test every five years for particulate matter, particulate matter less than 10 microns in diameter, sulfur dioxide, nitrogen oxides, carbon monoxide and each listed toxic air contaminant in Table 1. [Approval Nos. 647, 648, 649 & 1818(D)(2)]

b. Annual Performance Test

Beginning in the calendar year 2009, the permittee shall conduct an emission test each year for particulate matter, particulate matter less than 10 microns in diameter, sulfur dioxide, nitrogen oxides, carbon monoxide and each listed toxic air contaminant in Table 1 where measured emissions (lb/hr, lb/day or lb/year) from the most recent five-year performance test is greater than 10% of allowable emissions. The requirement for an annual performance test does not apply in the years when a five-year performance test is required. [Approval Nos. 647, 648, 649 & 1818(D)(3)]

c. An emission testing protocol shall be submitted to the Office of Air Resources for review and approval prior to the performance of any emissions tests. The permittee shall provide the Office of Air Resources at least 60 days prior notice of any emissions test. [Approval Nos. 647, 648, 649 & 1818(D)(4)]

d. All test procedures used for emissions testing shall be conducted in accordance with Appendix A of 40 CFR 60 or another method approved by the Office of Air Resources and U.S. Environmental Protection Agency (EPA) prior to the performance of any emissions tests. [Approval Nos. 647, 648, 649 & 1818(D)(5)]

e. The permittee shall install any and all test ports or platforms necessary to conduct the required testing, provide safe access to any platforms, and provide the necessary utilities for sampling and testing equipment. [Approval Nos. 647, 648, 649 & 1818(D)(6)]

f. All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance

with the applicable emission limitations. [Approval Nos. 647, 648, 649 & 1818(D)(7)]

- g. The permittee shall notify the Office of Air Resources at least 60 days before the tests are scheduled in order to allow for testing to be observed by an Office of Air Resources representative. [Approval Nos. 647, 648, 649 & 1818(D)(8)]
- h. A final report of the results of any compliance testing shall be submitted to the Office of Air Resources no later than 60 days following completion of testing. [Approval Nos. 647, 648, 649 & 1818(D)(9)]
- i. All emissions testing must be observed by the Office of Air Resources or its authorized representatives to be considered acceptable, unless the Office of Air Resources provides authorization to the owner/operator to conduct the testing without an observer present. [Approval Nos. 647, 648, 649 & 1818(D)(10)]
- j. **Particulate Matter**
 - (1) The permittee shall determine compliance with the particulate matter emission limitations contained in Condition I.D.1.c(1) of this permit by following the procedures in 40 CFR 60.154(b)(1)-(5): [12.5, 40 CFR 60.154(b)(1)-(5)]
 - (2) Emission testing shall be conducted by the permittee according to Method 5 of Appendix A to 40 CFR 60, or by another method that has prior approval of or is required by the Director. [12.5(a)-(c), 40 CFR 60.154(a)]
- k. **Opacity**

Tests for determining compliance with the opacity limitations specified in Condition I.D.1.g of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2, 40 CFR 60.154(b)(6)]
- l. **Mercury**

Compliance with the mercury emission limitation in Condition I.H.1.c shall be determined in accordance with the procedures set forth in either 40 CFR 61.53(d) or 40 CFR 61.54. [40 CFR 61.53(d), 40 CFR 61.54(a)-(f)]

m. **Beryllium**

Compliance with the beryllium emission limitation in Condition I.H.1.c shall be determined in accordance with the procedures set forth in 40 CFR 61.33. [40 CFR 61.33(a)-(d)]

5. Recordkeeping Requirements

- a. The permittee shall continuously record the following information during all periods of operation of I002:
- (1) The combustion zone temperatures of I002. [Approval Nos. 647, 648, 649 & 1818(E)(1)(b), 40 CFR 60.153(b)(3), 40 CFR 60.153(c)(3), 29.6.3(b)]
 - (2) The fuel flow to I002 [Approval Nos. 647, 648, 649 & 1818(E)(1)(c), 40 CFR 60.153(b)(4), 40 CFR 60.153(c)(3), 29.6.3(b)].
 - (3) The pressure drop of the gas flow through the combined wet scrubber system (C006) serving I002. [Approval Nos. 647, 648, 649 & 1818(E)(1)(d), 40 CFR 60.153(b)(1), 40 CFR 60.153(c)(1), 29.6.3(a) 40 CFR 64]
 - (4) The scrubber water flow rate through C006. [Approval Nos. 647, 648, 649 & 1818(E)(1)(e), 29.6.3(a) 40 CFR 64]
 - (5) The oxygen content of I002's exhaust. [Approval Nos. 647, 648, 649 & 1818(E)(1)(f), 40 CFR 60.153(b)(2), 40 CFR 60.153(c)(2), 29.6.3(b)]
 - (6) The I002 exhaust temperature. [Approval Nos. 647, 648, 649 & 1818(E)(1)(g), 29.6.3(b)]
- b. The permittee shall record daily the fuel used in I002. [Approval Nos. 647, 648, 649 & 1818(E)(2), Consent Agreement 95-11-AP(7)(a), 27.6.9(a)]
- c. The permittee shall maintain records of the quantities of sludge received, the source of the sludge, and the date the sludge was received. [Approval Nos. 647, 648, 649 & 1818(E)(3)]
- d. On a monthly basis, no later than fifteen (15) days after the first of each month, the permittee shall determine the quantity of NO_x emitted from I002 for the previous twelve (12) month period. [Approval Nos. 647, 648, 649 & 1818(E)(4), Consent Agreement 95-11-AP(7)(b), 27.6.9(b)]

- e. The permittee shall maintain a record of the total solids and volatile solids content of the sludge charged to I002. [Approval Nos. 647, 648, 649 & 1818(E)(5), 40 CFR 60.153(b)(5), 40 CFR 60.153(c)(3)]
- f. The permittee shall determine compliance with the sludge throughput limitation contained in Conditions I.D.2.c of this permit by using the total solids content and hourly sludge feed rates to calculate the dry tons of sludge charged to I002 during the previous 12 months. This calculation shall be performed each month, no later than 15 days after the first of each month. [Approval Nos. 647, 648, 649 & 1818(E)(6)]
- g. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of I002, any malfunction of C006, or any periods during which a continuous monitoring system or monitoring device is inoperative. [Approval Nos. 647, 648, 649 & 1818(E)(7), 40 CFR 60.7(b)]
- h. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring devices and performance testing measurements; all CMS calibration checks; adjustments and maintenance performance on these systems or devices; and all other information required shall be recorded in a permanent form suitable for inspection. [Approval Nos. 647, 648, 649 & 1818(E)(8), 40 CFR 60.7(f)]

6. Reporting Requirements

- a. The permittee shall submit to the Office, semi-annually, a report in writing, which contains the following:
 - (1) A record of average scrubber pressure drop measurements for each period of 15 minutes duration or more during which the pressure drop of the combined system of C006 was less than 19.3 inches (the average scrubber pressure drop measured during the February 1, 2006 performance test minus a 30% percent reduction in scrubber pressure drop). [40 CFR 60.155 (a)(1)(i), Approval Nos. 647, 648, 649 & 1818(E)(16)(a)(1), 29.6.3(a) 40 CFR 64]
 - (2) A record of average oxygen content in the exhaust gas of I002 for each period of 1-hour duration or more that the oxygen content of the incinerator exhaust exceeds 5.3 percent (3% increase from the average oxygen content during the February 1, 2006 performance tests. [40 CFR 60.155(a)(2), Approval Nos. 647, 648, 649 & 1818(E)(16)(b), 29.6.3(b)]

- (3) For subsequent years, the permittee shall use the reporting thresholds for pressure and oxygen from the most recent stack test as reported by Conditions I.D.6.g-h of this permit. [29.6.3(b)]
- b. The permittee shall submit monthly reports to the Office of Air Resources summarizing operating conditions, incidences of non-compliance, and progress toward compliance. Reports shall include but not be limited to:
- (1) Day/hours of operation,
 - (2) Non-complying incidents and corrective actions taken,
 - (3) Major maintenance projects,
 - (4) Capital improvements, and
 - (5) Copies of any reports by consultants hired by the permittee to recommend system improvements.

Reporting shall continue until the permittee is notified by the Office of Air Resources that the emissions are in compliance with Air Pollution Control Regulations. [Consent Agreement 89-8-AP(7)] **Not Federally Enforceable**

- c. The permittee shall notify the Office of Air Resources within 15 days whenever the dry tons of sludge charged to I002 exceeds 16, 622 dry tons during any consecutive 12-month period. [Approval Nos. 647, 648, 649 & 1818(E)(12)(a)]
- d. The permittee must notify the Office of Air Resources no later than 24 hours after an exceedance of any emission limitation is discovered. Notification shall include: [Approval Nos. 647, 648, 649 & 1818(E)(15)]
- (1) Identification of the emission limitation exceeded
 - (2) Suspected reason for the exceedance
 - (3) Corrective action taken or to be taken
 - (4) Anticipated length of the exceedance
- e. The permittee shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this section of the permit or any other applicable air pollution control rules and regulations for I002. [Approval Nos. 647, 648, 649 & 1818(E)(17)]

- f. The permittee shall notify the Office of Air Resources whenever the total scrubber water flow rate to C006 is less than 665 gallons per minute. This notification shall be provided in the semi-annual monitoring report required by condition II.AA.2 [29.6.3(a) 40 CFR 64]
- g. The permittee shall include with each stack test report required under Condition I.D.4.h, the average scrubber pressure drop measured during the test and the average scrubber pressure drop measured during the test minus a 30% reduction in pressure drop. The average scrubber pressure drop measured during the test minus a 30% reduction in pressure drop shall be the reporting threshold in Condition I.D.6.a(1). [29.6.3(a) 40 CFR 64]
- h. The permittee shall include with each stack test report required under Condition I.D.4.h, the average oxygen content in the exhaust gas of I001 during the performance test and 3% increase from the average oxygen content in the exhaust gas of I001 during the performance test. The 3% increase from the average oxygen content during the most recent performance test shall be the reporting threshold in Condition I.D.6.a(2). [29.6.3(b)]

7. Other Requirements

- a. To the extent consistent with the requirements of this section of the permit and applicable federal and state laws, I002 shall be designed, constructed and operated in accordance with the representation of the facility in the preconstruction permit application prepared by ESS Group, Inc., dated 26 November 2003 and any revisions. [Approval Nos. 647, 648, 649 & 1818(F)(1)]
- b. I002 is subject to the requirements of the Federal New Source Performance Standard 40 CFR 60 Subpart A, "General Provisions" and Subpart O, "Standards of Performance for Sewage Treatment Plants" and the National Emission Standard for Hazardous Air Pollutants 40 CFR 61 Subpart A, "General Provisions", Subpart C, "National Emission Standard for Beryllium", and Subpart E, "National Emission Standard for Mercury." Compliance with all applicable provisions therein is required, unless otherwise stated in this permit. [Approval Nos. 647, 648, 649 & 1818(F)(2)]
- c. At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating

and maintenance procedures and inspection of the source. [Approval Nos. 647, 648, 649 & 1818(F)(4)]

- d. The Office of Air Resources may reopen and revise this permit if it determines that:
- (1) a material mistake was made in establishing the operating restrictions; or,
 - (2) inaccurate emission factors were used in establishing the operating restrictions; or,
 - (3) emission factors have changed as a result of stack testing or emissions monitoring.
 - (4) the PM-10 emission limitations in conditions I.D.1.d of this permit are not achievable. Determination of whether the emission limitations are achievable will be based on information available to the Office of Air Resources which may include, but is not limited to, stack testing results for the two incinerators in this permit, stack testing results for other similar incinerators and review of the operation and maintenance of the air pollution control systems. [Approval Nos. 647, 648, 649 & 1818(F)(6)] [Approval Nos. 647, 648, 649 & 1818(F)(6)]
- e. Operation of I002 as a regional sludge disposal facility does not relieve the permittee from compliance with applicable air pollution control rules and regulations. [Letter dated 4 October 1989 from James Fester of RIDEM to Raymond Azor of the City of Cranston]

E. Requirements for Emissions Units P001 and M001

Emission Unit P001, which consists of :

- Three bar screens and two grit chambers used for screening and grit removal from influent, located in the Headworks Building
- Primary clarifiers consisting of three open concrete process tanks filled with wastewater
- Aeration tanks consisting of four open concrete process tanks used for biological treatment and nitrification of wastewater
- Secondary clarifiers consisting of four open concrete process tanks, which contain biologically treated wastewater

- Chlorine contact chambers consisting of two process tanks used to disinfect wastewater.
- One gravity thickener and one gravity belt thickener used to thicken sludge, located in the Sludge Thickening Building
- Two covered centrifuges used to dewater sludge, located in the Solids Handling Building
- Three covered screw pumps.
- Emission Unit M001, which is an Ecolo Odor Control System using D.O.E. #251. D.O.E. #251 is sprayed in the area of the primary clarifiers.

There are no specific applicable requirements for P001 and M001. This does not relieve the permittee from compliance with the provisions of the General Conditions, outlined in Section II of this permit, as they apply to P001 and M001.

F. Requirements for Emissions Units P002, and P003

The following requirements are applicable to:

- Emissions Unit P002, which are two 500,000 gallon sludge holding tanks and one 1,000,000 gallon sludge holding tank. P002 is associated with air pollution control device C005.
- Emissions Unit P003, which is the wastewater holding tank. P003 is associated with air pollution control device C005.
- Air pollution control device C005, which is a U.S. Filter – Davis Process packed tower scrubber, Model No. Process DD-71 Triplex.

1. Operating Requirements

- a. C005 shall be operated according to its design specifications whenever P002, and/or P003 is in operation or is emitting air contaminants. [16.2]
- b. In the event that C005 will be shut down for planned or unplanned maintenance and the duration of the shutdown will be twenty four hours or less, ferric chloride, sodium chlorite or calcium nitrate shall be added to P002 and P003 to minimize uncontrolled emissions during the shutdown. [Letter dated 28 April 2008 from Douglas L. McVay of RIDEM to Daniel J. Gorka of the Veolia Water North America]
- c. In the case of malfunction of C005, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In

the event that the malfunction of C005 is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate P002, and/or P003 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following: [16.3]

- (1) Identification of the specific air pollution control system (i. e. C005) and the source on which it is installed; (i. e. P002 and/or P003), [16.3(a)]
- (2) The expected period of time that C005 will be malfunctioning or out of service; [16.3(b)]
- (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.3(c)]
- (4) Measures that will be taken to minimize the length of said period, and [16.3(d)]
- (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [16.3(e)]

2. Monitoring Requirements

- a. The permittee shall check the pH and ORP (oxidation reduction potential) of C005 scrubbing liquid a minimum of once per shift. [29.6.3(b)]

3. Recordkeeping Requirements

- a. The permittee shall record the date, time, and measurement of the pH and ORP (oxidation reduction potential) of C005 scrubbing liquid a minimum of once per shift. [29.6.3(b)]

G. Requirements for Emissions Unit T001

The following requirements are applicable to:

- Emissions Unit T001, which is a lime silo. T001 has a 4,000 cubic feet storage capacity. Emissions Unit T001 is associated with air pollution control device C007, which is a Griffin shaker baghouse, Model No. 36-LS.

1. Emission Limitations

a. Opacity

The permittee shall not emit into the atmosphere, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]

2. Operating Requirements

a. C007, shall be operated according to its design specifications whenever T001 is in operation or is emitting air contaminants. [16.2]

b. In the case of malfunction of C007, all reasonable measures shall be taken to assure resumption of the designed control efficiency as soon as possible. In the event that the malfunction of C007, is expected or may reasonably be expected to continue for longer than 24 hours and if the permittee wishes to operate T001 beyond that period, the Director shall be petitioned for a variance under Section 23-23-15 of the General Laws of Rhode Island, as amended. Such petition shall include, but is not limited to, the following: [16.3]

- (1) Identification of the specific air pollution control system (i. e. C007) and the source on which it is installed; (i.e.T001), [16.3(a)]
- (2) The expected period of time that C007, will be malfunctioning or out of service; [16.3(b)]
- (3) The nature and quantity of air contaminants likely to be emitted during said period, [16.3(c)]
- (4) Measures that will be taken to minimize the length of said period, and [16.3(d)]
- (5) The reasons that it would be impossible or impractical to cease the source operation during said period. [16.3(e)]

3. Monitoring Requirements

a. The permittee shall observe any visible emissions that are present during loading of T001. [29.6.3(b)]

4. Testing Requirements

a. Opacity

Tests for determining compliance with the opacity limitations specified in condition I.G.1.a of this permit shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1,1.3.2]

5. Recordkeeping Requirements

- ##### **a.**
- The permittee shall check if visible emission are present during loading of T001 and record the date, time and Silo number of the Silo(s) being filled. [29.6.3(b)]

H. Facility-wide Requirements

1. Emissions Limitations

- ##### **a.**
- The permittee shall limit actual emissions of nitrogen oxides (NO_x) at the facility from any and all combustion units with a heat input greater than or equal to one million BTUs per hour to no more than fifty (50) tons during any consecutive twelve (12) month period. [Consent Agreement 95-11-AP(5), 27.2.2(a)]
- ##### **b.**
- The total quantity of Hazardous Air Pollutant (HAP) emitted from the entire facility shall not exceed 18,000 pounds of any one (1) HAP or 48,000 pounds of any combination of HAPs in any consecutive 12 month period. [Approval Nos. 647, 648, 649 & 1818(A)(3)(b)]
- ##### **c.**
- The total quantity of any listed toxic air contaminant discharged to the atmosphere from I001 and I002 shall not exceed the limitations shown in Table 1. The limitations shown in pounds per year are calculated on a 12-month rolling basis. These limitations were established to ensure that emissions from this facility do not exceed any of the acceptable ambient levels (AALs) listed in Air Pollution Control Regulation No. 22. [Approval Nos. 647, 648, 649 & 1818(A)(3)(a), 40 CFR 61.52(b), 40 CFR 61.32(a)]

2. Operating Requirements

- ##### **a.**
- If the emissions limitation set forth in Condition I.H.1.a of this permit is exceeded, the permittee shall immediately be in compliance with Reasonably Available Control Technology (RACT) Plan requirements as specified in APC Regulation 27, Section 27.4. Failure to immediately comply with

Section 27.4 shall subject the permittee to enforcement actions, which may include monetary penalties. [Consent Agreement 95-11-AP(6), 27.2.2]

3. Recordkeeping Requirements

- a. The permittee shall, on a monthly basis no later than (15) days after the first of each month, determine the fuel usage and quantity of NO_x emitted for the previous twelve (12) month period for each combustion unit and stationary source. [Consent Agreement 95-11-AP(7)(b), 27.6.9(b)]
- b. The permittee shall, on a monthly basis, no later than 5 days after the first of the month, determine the total quantity of hazardous air pollutants (HAPs) discharged to the atmosphere from the entire facility. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request. [Approval Nos. 647, 648, 649 & 1818(E)(13)]

4. Reporting Requirements

- a. The permittee shall notify the Office of Air Resources in writing within thirty (30) days of the end of the month, whenever NO_x emissions exceed fifty (50) tons during the previous twelve (12) months. [Consent Agreement 95-11-AP(7)(c), 27.6.9(c)]
- b. The permittee shall notify the Office of Air Resources in writing, within 15 days, whenever the total quantity of HAP discharged to the atmosphere exceeds 18,000 pounds of any one (1) HAP or 48,000 pounds of any combination of HAPs in any consecutive 12 month period. [Approval Nos. 647, 648, 649 & 1818(E)(14)]

SECTION II. GENERAL CONDITIONS

A. Annual Emissions Fee Payment

The permittee shall pay an annual emissions fee as established in Air Pollution Control Regulation No. 28 "Operating Permit Fees". [29.6.8(d)]

B. Permit Renewal and Expiration

This permit is issued for a fixed term of 5 years. The permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least 12 months prior to the date of permit expiration. Upon receipt of a complete and timely application for renewal, this source may continue to operate subject to final action by the Office of Air Resources on the renewal application. In such an event, the permit shield in Condition II.Y of this permit shall extend beyond the original permit term until renewal. This protection shall cease to apply if, subsequent to a completeness determination, the applicant fails to submit by the deadline specified in writing by the Office of Air Resources any additional information identified as being needed to process the application. The application for renewal shall include the current permit number, description of permit revisions and off-permit changes that occurred during the permit term, and any applicable requirements that were promulgated and not incorporated into the permit during the permit term. [29.6.8(a), 29.4.2(c), 29.4.6]

C. Transfer of Ownership or Operation

This permit is nontransferable by the permittee. Future owners and operators must obtain a new operating permit from the Office of Air Resources. A change in ownership or operational control of this source is treated as an administrative permit amendment if no other change in this permit is necessary and provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Office of Air Resources. [29.10.1(a)(4)]

D. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege. [29.6.8(c)(4)]

E. Submissions

1. Reports, test data, monitoring data, notifications, and requests for renewal shall be submitted to :

RIDEM - Office Air Resources
Compliance Assurance Section
235 Promenade St. Room 230
Providence, RI 02908

2. Any records, compliance certifications and monitoring data required by the provisions of this permit to be submitted to USEPA shall be sent to:

USEPA Region I
Office of Environmental Stewardship
Director, Air Compliance Program
Attn: Air Compliance Clerk
One Congress St. Suite 1100 (SEA)
Boston, MA 02114 - 2023

3. Any document submitted shall be certified as being true, accurate, and complete by a responsible official. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. [29.6.8(e)]

F. Inspection and Entry

1. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter this facility at all reasonable times for the purpose of:
 - a. having access to and copying at reasonable times any records that must be kept under the conditions of this permit;
 - b. inspecting at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - c. sampling or monitoring, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or other applicable requirements.[RIGL 23-23-5(7), 29.6.8(f)(1-4), Consent Agreement 89-8-AP(10), Approval Nos. 647, 648, 649 & 1818(F)(3)]

Nothing in this condition shall limit the ability of USEPA to inspect or enter the premises of the permittee under Section 114 or other provisions of the Clean Air Act.

G. Compliance

1. The permittee must comply with all conditions of this permit. Any noncompliance with a federally enforceable permit condition constitutes a violation of the Clean Air Act and is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. Any noncompliance with a permit condition designated as state only enforceable constitutes a violation of state rules only and is grounds for enforcement action, for permit termination, revocation and reissuance or modification, or for denial of a permit renewal application. [29.6.8(c)(1)]
2. For each unit at the facility for which an applicable requirement becomes effective during the permit term, the permittee shall meet such requirements on a timely basis unless a more detailed schedule is expressly required by the applicable requirement. [29.6.5(a)]
3. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. [29.6.8(c)(2)]

H. Excess Emissions Due to an Emergency

As the term is used in this condition an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of this source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes this source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error. [29.6.11(b)]

Technology-based emission limits are those established on the basis of emission reductions achievable with various control measures or process changes (e.g., a new source performance standard) rather than those established to attain a health based air quality standard.

The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that: [29.6.11(a) & 29.6.11(c)]

1. an emergency occurred and that the permittee can identify the cause(s) of the emergency; [29.6.11(c)(1)]
2. the permitted facility was at the time being properly operated; [29.6.11(c)(2)]
3. during the period of the emergency, the permittee took all reasonable steps to

minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit; and [29.6.11(c)(3)]

4. the permittee submitted notice of the emergency to the Office of Air Resources within 2 working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirements of Condition II.AA.3 of this permit. [29.6.11(c)(4)]

The permittee shall have the burden of proof in seeking to establish the occurrence of an emergency. [29.6.11(d)]

I. Duty to Provide Information

The permittee shall furnish to the Office of Air Resources, within a reasonable time, any pertinent information that the Office of Air Resources may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Office of Air Resources copies of records that the permittee is required to keep by this permit, or for information claimed to be confidential, the permittee may furnish such records directly to the Administrator along with a claim of confidentiality. [29.6.8(c)(5)]

J. Duty to Supplement

The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the Office of Air Resources. The permittee shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete renewal application was submitted but prior to release of a draft permit. [29.5.4]

K. Reopening for Cause

The Office of Air Resources will reopen and revise this permit as necessary to remedy deficiencies in the following circumstances:

1. Additional requirements under the Clean Air Act become applicable to a major source 3 or more years prior to the expiration date of this permit. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the expiration date of this permit, unless this permit or any of its terms and conditions has been extended. [29.6.13(a)]
2. The Office of Air Resources or the Administrator determines that this permit contains a material mistake or inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. [29.6.13(c)]

3. The Office of Air Resources or the Administrator determines that the permit must be revised or revoked to assure compliance with the applicable requirements. [29.6.13(d)]

Reopenings shall not be initiated before a notice of intent to reopen is provided to the permittee by the Office of Air Resources at least 30 days in advance of the date that this permit is to be reopened, except that the Office of Air Resources may provide a shorter time period (but not less than 5 days) in the case of an emergency. [29.9.5(b)]

Proceedings to reopen and issue this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable. [29.9.5(a)]

All permit conditions remain in effect until such time as the Office of Air Resources takes final action. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [§70.6(a)(6)(iii)]

L. Severability Clause

The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby. [29.6.8(b)]

M. Off-Permit Changes

1. The permittee is allowed to make certain changes that are not addressed or prohibited by this permit without a permit revision, provided that the following conditions are met: [29.11.2(a)]
 - a. Each such change shall not violate any term or condition of this permit. [29.11.2(b)]
 - b. Each change shall comply with all applicable requirements. [29.11.2(b)]
 - c. Changes under this provision may not include changes or activities subject to any requirement under Title IV or modifications under any provision of Title I of the Clean Air Act. [29.11.2(a)]
 - d. Before the permit change is made, the permittee must provide contemporaneous written notice to the Office of Air Resources and the USEPA Region I, except for changes that qualify as insignificant activities in Appendix A of APC Regulation No. 29. This notice shall describe each change, including the date, and change in emissions, pollutants emitted, and

any applicable requirement that would apply as a result of the change. [29.11.2(c)]

- e. The permit shield does not apply to changes made under this provision. [29.11.2(d)]
 - f. The permittee shall keep a record describing changes made at the stationary source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the emissions resulting from those changes, including any other data necessary to show compliance with applicable ambient air quality standards. The record shall reside at the permittee's facility. [29.11.2(e)]
2. Changes made pursuant to this provision shall not be exempt from the requirement to obtain a minor source permit pursuant to the requirements of Air Pollution Control Regulation No. 9, if applicable. [29.11.2(a)]
 3. Changes made pursuant to this provision shall be incorporated into this permit at the time of renewal. [29.11.2(f)]

N. Section 502(b)(10) Changes

1. The permittee is allowed to make changes within this permitted facility that contravene the specific terms of this permit without applying for a permit revision, provided the changes do not exceed the emissions allowable under this permit, whether expressed therein as a rate of emissions or in terms of total emissions and are not Title I modifications. This class of changes does not include:
 - a. changes that would violate applicable requirements; or
 - b. changes to federally-enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements. [29.11.1(a), 29.1.36]
2. The permittee shall provide written notice to the Office of Air Resources and the USEPA Region I of any change made under this provision. The notice must be received by the Office of Air Resources no later than fourteen (14) days in advance of the proposed changes. The notice shall include information describing the nature of the change, the effect of the change on the emission of any air contaminant, the scheduled completion date of the planned change and identify any permit terms or conditions that are no longer applicable as a result of the change. The permittee shall attach each notice to its copy of this permit. [29.11.1(a)(1), 29.11.1(a)(2)]
3. The permittee shall be allowed to make such change proposed in its notice the day following the last day of the advance notice described in paragraph 2 if the Office of Air Resources has not responded nor objected to the proposed change on or before

that day. [29.11.1(b)]

4. Any permit shield provided in this permit does not apply to changes made under this provision. If subsequent changes cause the permittee's operations and emissions to revert to those anticipated in this permit, the permittee resumes compliance with the terms and conditions of the permit, and has provided the Office of Air Resources and USEPA with a minimum of fourteen (14) days advance notice of such changes in accordance with the provisions of paragraph 2, the permit shield shall be reinstated in accordance with terms and conditions stated in this permit. [29.11.1(c)]
5. Changes made pursuant to this provision shall be incorporated into the operating permit at the time of renewal. [29.11.1(d)]

O. Emissions Trading

No permit revision shall be required under any approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for in the permit. [29.6.6(a)]

P. Emission of Air Contaminants Detrimental to Person or Property

The permittee shall not emit any air contaminant which either alone or in connection with other emissions, by reason of their concentration or duration, may be injurious to human, plant or animal life, or cause damage to property or which unreasonably interferes with the enjoyment of life or property. [7.2]

Q. Odors

1. The permittee shall not emit or cause to be emitted into the atmosphere any air contaminant or combination of air contaminants which creates an objectionable odor beyond the property line of this facility. [17.2]
2. A staff member of the Office of Air Resources shall determine by personal observation if an odor is objectionable, taking into account its nature, concentration, location, duration and source. [17.3]

R. Visible Emissions

1. Except as may be specified in other provisions of this permit, the permittee shall not emit into the atmosphere, from any emission unit, any air contaminant, for a period or periods aggregating more than three minutes in any one hour, which is greater than or equal to 20 percent opacity. [1.2] Where the presence of uncombined water is the only reason for failure to meet this requirement, such failure shall not be a violation of this permit. [1.4]
2. Tests for determining compliance with the opacity limitations specified in this permit

shall be performed per 40 CFR 60, Appendix A, Method 9. Additionally, all observers must qualify as per 40 CFR 60, Appendix A, Method 9. [1.3.1, 1.3.2]

S. Open Fires

It shall be unlawful for the permittee to burn any material in an open fire, except as provided in APC Regulation No. 4, Section 4.3. [4.2]

T. Construction Permits

It shall be unlawful for the permittee to construct, install, modify or cause the construction, installation or modification of any stationary source subject to the provisions of APC Regulation No. 9 without obtaining either a minor source permit or a major source permit from the Director. [9.2.1]

U. Sulfur in Fuel

1. Except as may be specified in other provisions of this permit, unless the Director declares in writing after a hearing that a shortage of low sulfur fuel exists, the permittee shall not use or store fuel oil with a sulfur content greater than 1.0% by weight, except for use with marine vessels or motor vehicles. [8.2, 8.3.6]
2. Compliance with the sulfur in fuel limitations contained in this section shall be determined by the procedures listed below or by another method deemed equivalent by the Director and USEPA: [29.6.3(b)]
 - a. For each shipment of fuel oil, the permittee shall obtain a certification from the fuel supplier which contains:
 - (1) For distillate fuel oil:
 - (a) the name of the supplier
 - (b) a statement that the oil complies with the specification for fuel oil number 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78 "Standard Specification for Fuel Oils."
 - (2) For residual fuel oil:
 - (a) The name of the supplier,
 - (b) The nitrogen and sulfur content of the oil and the ASTM method used to determine the nitrogen and sulfur content of the oil,

- (c) The location of the oil when the sample was drawn for analysis to determine the nitrogen and sulfur content of the oil, specifically including whether the oil was sampled as delivered to the permittee or whether the sample was drawn from oil in storage at the oil suppliers/refiners facility or another location. [27.6.5(a – d)]
- (3) For diesel fuel oil:
- (a) The name of the fuel supplier;
 - (b) A statement that the oil complies with the specification for diesel fuel oil grade 1-D or 2-D, as defined by the American Society for Testing and Materials in ASTM D975-03 “Standard Specification for Fuel Oils.” [29.6.3]
- b. As an alternative to fuel oil certification, the permittee may elect to sample the fuel oil prior to combustion. Sampling and analysis shall be conducted after each new shipment of fuel oil is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any fuel oil is combusted. [8.4.1(b), 27.6.6]
 - c. All fuel oil must be sampled and analyzed according to ASTM methods which have the prior approval of or are required by the Office of Air Resources. [8.4.1(b), 27.6.6]
 - d. Copies of the fuel oil analysis sheets shall be maintained at the facility and be made accessible for review by the Office of Air Resources or designated personnel of the Office of Air Resources and USEPA. These records shall include a certified statement, signed by a responsible official, that the records represent all of the fuel combusted during each quarter. [27.6.7]
 - e. The Director may require, under his supervision, the collection of fossil fuel samples for the purpose of determining compliance with the sulfur limitations in this permit. Sampling and analysis of fossil fuels under Condition II.U.2 of this permit shall not limit the collection of samples under this condition. [8.4.3]

V. Air Pollution Episodes

Conditions justifying the proclamation of an air pollution alert, air pollution warning or air pollution emergency shall be deemed to exist whenever the Director determines that the accumulation of air pollutants in any place is attaining or has attained levels which could, if such levels are sustained or exceeded, lead to a substantial threat to the health of persons. If the governor declares an air pollution alert, air pollution warning or air pollution emergency, the permittee shall comply with the applicable requirements contained in APC Regulation

No. 10. [10.1]

W. Fugitive Dust

The permittee shall not cause or permit any materials, including but not limited to sand, gravel, soil, aggregate and any other organic or inorganic solid matter capable of releasing dust, to be handled, transported, mined, quarried, stored or otherwise utilized in any way so as to cause airborne particulate matter to travel beyond the property line of the facility without taking adequate precautions to prevent particulate matter from becoming airborne. Such precaution shall be in accordance with good industrial practice as determined by the Director and/or shall be other reasonable fugitive dust prevention measures as determined by the Director. [5.3]

X. Compliance Certifications

1. The permittee shall submit a certification of compliance with permit terms and conditions annually. [29.6.5(c)(1)]
2. The certification shall describe the following:
 - a. the permit term or condition that is the basis of the certification; [29.6.5(c)(3)a]
 - b. the current compliance status; [29.6.5(c)(3)b]
 - c. whether compliance was continuous or intermittent; and [29.6.5(c)(3)c]
 - d. the methods used for determining compliance, currently and over the reporting period. [29.6.5(c)(3)d]
3. All compliance certifications shall be submitted to the Office of Air Resources and to the USEPA Region I. It shall be submitted within 60 days following the end of the reporting period which is the calendar year unless otherwise specified. [29.6.5(c)(4)]
4. All compliance certifications shall be certified as being true, accurate, and complete by a responsible corporate official. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the certification are true, accurate, and complete. [29.6.8(e)]

Y. Permit Shield

1. Compliance with the terms and conditions of this permit shall be deemed compliance with all requirements applicable to the source in the following: Approval Nos. 647, 648, 649, and 1818; Letter dated 4 October 1989 from James Fester of RIDEM to Raymond Azor of the City of Cranston, Letter dated 28 April 2008 from Douglas L. McVay of RIDEM to Daniel J. Gorka of the Veolia Water North America , Consent Agreement 89-8-AP, Consent Agreement 95-11-AP; RI APC Regulation Nos. 1, 4, 5, 7, 8, 9, 10, 12, 13, 14, 16, 17, 22, 27, 28, and 29; and Federal Regulations 40 CFR 60 Subpart A and Subpart O, and 40 CFR 61 Subpart A, Subpart C, and Subpart E. [29.6.12(a)(1)]
2. The Office of Air Resources has determined that units B002, B005, B006, B007, G001, I001, I002, T001, P001, P002, P003, and M001 are not subject to the following: RI APC Regulation Nos. 3, 6, 11, 15, 19, 20, 21, 23, 24, 25, 26, 30, 31, 32, 33, 35, 36, 39, 41 and 43. [29.6.12(a)(2)]
3. Nothing in this permit shall alter or affect the following:
 - a. the provisions of Section 303 of the Clean Air Act, including the authority of USEPA under that Section. [29.6.12(c)(1)]
 - b. the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [29.6.12(c)(2)]
 - c. the applicable requirements of the acid rain program consistent with Section 408 of the Clean Air Act. [29.6.12(c)(3)]
 - d. the ability of the USEPA to obtain information under Section 114 of the Act. [29.6.12(c)(4)]
4. If it is determined that this operating permit was issued based on inaccurate or incomplete information provided by the permittee, this permit shield shall be void as to the portions of this permit which are affected, directly or indirectly, by the inaccurate or incomplete information. [29.6.12(d)]

Z. Recordkeeping

1. The permittee shall, at the request of the Director, provide data on operational processes, fuel usage, raw materials, stack dimensions, exhaust gas flow rates and temperatures, emissions of air contaminants, steam or hot water generator capacities, types of equipment producing air contaminants and air pollution control systems or other data that may be necessary to determine if the facility is in compliance with air pollution control regulations. [14.2.1]

2. All records and supporting information required by this permit shall be maintained at the permittee's 140 Pettaconsett Avenue facility for a period of at least 5 years from the date of sample monitoring, measurement, report or application, and shall be made available to representatives of the Office of Air Resources and USEPA upon request. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [14.2.1, 29.6.4(a)(2), Consent Agreement 95-11-AP(7), Consent Agreement 89-8-AP(5), 40 CFR 61.54(g), 40 CFR 61.33(e), 40 CFR 60.153(c), 40 CFR 61.14(f), 40 CFR 60.7(f), Approval Nos. 647, 648, 649 & 1818(E)(20)]
3. The permittee shall keep records of required monitoring information that include the following:
 - a. The date, place and time of sampling or measurements; [29.6.4(a)(1)]
 - b. The date(s) analyses were performed; [29.6.4(a)(1)]
 - c. The company or entity that performed the analyses; [29.6.4(a)(1)]
 - d. The analytical techniques or methods used; [29.6.4(a)(1)]
 - e. The results of such analyses; and [29.6.4(a)(1)]
 - f. The operating conditions as existing at the time of sampling or measurement. [29.6.4(a)(1)]

AA. Reporting

1. The information recorded by the permittee pursuant to Condition II.Z.1 of this Section shall be summarized and reported at least annually to the Director. It shall be submitted by April 15th unless otherwise specified. [14.2.2] Information submitted pursuant to this condition will be correlated with applicable emission limitations and other applicable emissions information and will be available for public inspection. [14.2.3]
2. The permittee shall submit reports of any required monitoring for each semi annual period ending 30 June and 31 December of every calendar year. These reports shall be due to the Office of Air Resources no later than forty-five (45) days after the end of the reporting period. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with Condition II.X.4. [29.6.4(b)(1)]
3. Deviations from permit conditions, including those attributable to upset conditions as defined in this permit, shall be reported, in writing, within five (5) business days of

the deviation, to the Office of Air Resources. A copy of any such report shall be sent to the USEPA Region I. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken. Each report must be certified by a responsible official consistent with Condition II.X.4. of this permit. [29.6.4(b)(2), Approval Nos. 647, 648, 649 & 1818(E)(18)]

4. The Office of Air Resources shall be notified in writing of any planned physical change or operational change to the emissions units and control devices identified in this permit. Such notification shall include information describing the nature of the change, information describing the effect of the change on the emissions of air contaminants and the scheduled completion date of the planned change. Any change which may result in an increased emission rate of any air contaminant shall be subject to approval of the Office of Air Resources. [40 CFR 60.7(a)(4), Approval Nos. 647, 648, 649 & 1818(E)(19)]

BB. Credible Evidence

For the purpose of submitting compliance certifications or establishing whether or not the permittee has violated or is in violation of any provision of this permit, the methods used in this permit shall be used, as applicable. However, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the permittee would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed. [40 CFR 51.212c, 52.12c, 52.33a]

CC. Emission Statements

1. The permittee shall submit annually an emission statement which includes information for both VOC and NO_x if facility wide actual emissions are 25 tons per year of either pollutant. Emission statements shall be submitted to the Director on April 15th of each year unless otherwise specified. The permittee may apply to the Office of Air Resources to be allowed to discontinue submitting annual emission statements if actual emissions at the facility decrease to below 10 tons per year as a result of a permanent process change. [14.3.1] The permittee shall submit an emission statement in a format approved by the Office of Air Resources. The emission statement shall contain the following information: [14.3.2]
 - a. A certification that the information contained in the emission statement is accurate and complete to the best knowledge of the certifying individual.
 - b. The full name, title, signature, date of signature, and telephone number of the certifying individual.
 - c. Facility identification information, including the full name, physical location, mailing address, latitude, longitude, and four digit SIC code(s).

- d. Process data pertaining to each process emitting VOC and/or NO_x, including:
 - (1) Annual and typical ozone season daily fuel use,
 - (2) Annual and typical ozone season daily process rate(s), and
 - (3) Process throughput while air pollution control equipment was not in operation.

- e. Operating data pertaining to each process emitting VOC and/or NO_x during the reporting year, including:
 - (1) Percentage annual throughput,
 - (2) Average hours of operation per day during the reporting year and on a typical ozone season day,
 - (3) Average number of days of operation per week during the reporting year and during a typical ozone season week, and
 - (4) Weeks of operation during the reporting year and during the peak ozone season.

- f. Control equipment information, including:
 - (1) Specific primary and secondary control equipment for each process emitting VOC and/or NO_x,
 - (2) Current overall control efficiency for each piece of control equipment (indicated by percent capture and percent destruction or removal), and
 - (3) Control equipment downtime during the reporting year and during the peak ozone season.

- g. Emissions information, including:
 - (1) Actual annual and typical ozone season daily emissions of VOC and NO_x for each process. Emissions should be reported in tons per year and in pounds per day.
 - (2) A description of the emission calculation method and, if applicable, emission factor(s) used, and
 - (3) The calendar year for which emissions are reported.

- h. Any additional information required by the Director to document the facility's emission statements.

DD. Miscellaneous Conditions

- 1. This permit may be modified, revoked, reopened, reissued or terminated for cause. The filing of a request, by the permittee, for a permit modification, revocation and reissuance or termination or of a notification of planned changes or anticipated noncompliance does not release the permittee from the conditions of this permit.

[29.6.8(c)(3)]

2. Any application for a permit revision need only submit information related to the proposed change. [29.4.3(c)]
3. Terms not otherwise defined in this permit shall have the meaning given to such terms in 40 CFR 60.2, 40 CFR 61.02 or the referenced regulation as applicable.
4. Where more than one condition in this permit applies to an emission unit and/or the entire facility, the most stringent condition shall apply.

SECTION III. SPECIAL CONDITIONS

A. Ozone-depleting Substances

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - a. All containers containing a class I or class II substance that is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR 82.106.
 - b. The placement of the required warning statement must comply with the requirements of 40 CFR 82.108.
 - c. The form of the label bearing the required warning statement must comply with the requirements of 40 CFR 82.110.
 - d. No person may modify, remove or interfere with the required warning statement except as described in 40 CFR 82.112.
2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners (MVAC) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices of 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment of 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs and MVAC-like appliances (as defined in 40 CFR 82.152) must comply with recordkeeping requirements of 40 CFR 82.166.

- e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair equipment requirements of 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
3. If the permittee manufactures, transforms, imports or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR Part 82, Subpart A, "Production and Consumption Controls".
 4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR Part 82, Subpart B, "Servicing of Motor Vehicle Air Conditioners".

The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.
 5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program".

B. Prevention of Accidental Releases

This section contains air pollution control requirements that are applicable to this facility, and the United States Environmental Protection Agency enforces these requirements.

Your facility is subject to the requirements of the General Duty Clause, under 112(r)(1) of the CAA Amendments of 1990. This clause specifies that owners or operators of stationary sources producing, processing, handling or storing a chemical in any quantity listed in 40 CFR Part 68 or any other extremely hazardous substance have a general duty to identify hazards associated with these substances and to design, operate and maintain a safe facility, in order to prevent releases and to minimize the consequences of accidental releases which may occur.

Table 1. Emissions Limitations for Listed Toxic Air Contaminants

Pollutant	Limitation		
	pounds/hour	pounds/day	pounds/year
Acrylonitrile	4.68	----	393.9
Antimony & compounds, except trioxide ^a	----	0.28	----
Antimony trioxide	----	0.28	102.2 ¹
Arsenic & compounds ^a (inorganic)	0.0047	----	7.88
Benzene	4.68	42	3939.2
Beryllium & compounds ^a	----	0.022 ²	8.03 ³
Cadmium & compounds ^a	----	0.140	23.64
Chromium VI & compounds ^a -solid particulate	----	1.40	3.15
Cobalt & compounds ^a	----	----	393.9
Hydrogen Chloride	46.76	----	18,000 ⁴
Lead & compounds ^a , inorganic	----	----	315.1
Manganese & compounds ^a	----	0.070	25.55 ⁵
Mercury & compounds ^a	0.047	0.421	153.7 ⁶
Nickel & compounds ^a	0.14	----	157.6
Phosphoric Acid	----	----	275,743
Sulfuric Acid	2.34	----	20,498 ⁷
Total 2,3,7,8 TCDD equivalents	----	----	1.18E-04
Vanadium & compounds ^a	0.0047	----	----

^aFor metal compounds, limitations apply to the metal portion of the compound.

¹Daily limit x 365 days/yr (102.2) is more stringent than that back calculated from the AAL (787.8)

²NSPS limit of 10 grams/24 hrs (0.022) is more stringent than that back calculated from the AAL (0.028)

³Daily limit x 365 days/yr (8.03) is more stringent than that back calculated from the AAL (15.76)

⁴HAP limitation (Condition A.3.b) is more stringent than that back calculated from the AAL (354,527)

⁵Daily limit x 365 days/yr (25.55) is more stringent than that back calculated from the AAL (1575.7)

⁶Daily limit x 365 days/yr (153.7) is more stringent than that back calculated from the AAL (354.5)

⁷Hourly limit x 8760 hrs/yr (20,498) is more stringent than that back calculated from the AAL (39,392)