

26 March 2010

Mr. Charles J. Volpe  
Environmental Manager  
Advanced Chemical Company  
105 Bellows Street  
Warwick, RI 02888

Dear Mr. Volpe:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of an incinerator at your 105 Bellows Street, Warwick facility.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval No. 2096).

I can be reached at 222-2808, extension 7020 if you have any questions.

Sincerely,

Pamela E. Crump, EIT  
Air Quality Specialist  
Office of Air Resources

cc: Warwick Building Official  
Paul C. "Pete" Toy, Jr. – Toyenco, Inc.

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

MINOR SOURCE PERMIT

ADVANCED CHEMICAL COMPANY

APPROVAL NO. 2096

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

Advanced Chemical Company

For the following:

Installation of a United Model No. W-3000-HT dual chamber incinerator to process precious metal bearing material.

Located at: 105 Bellows Street, Warwick

**This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Advanced Chemical Company* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.**

\_\_\_\_\_  
Douglas L. McVay, Acting Chief  
Office of Air Resources

\_\_\_\_\_  
Date of issuance

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

Permit Conditions and Emissions Limitations

**ADVANCED CHEMICAL COMPANY**

Approval No. 2096

A. Emission Limitations

1. Particulate Matter

The concentration of particulate matter in the exhaust flue shall not exceed 0.08 grains per dry standard cubic foot (0.08 gr/dscf) corrected to 12% CO<sub>2</sub>.

2. Visible emissions from the incinerator exhaust flue shall not exceed 10% opacity (six-minute average).

B. Operating Requirements

1. The incinerator shall not be loaded unless the secondary chamber temperature is at or above 1800°F.

2. The secondary chamber temperature shall be maintained at a minimum of 1800°F, and the secondary chamber volume shall be of sufficient capacity to provide a minimum residence time for combustion gases of one second at 1800°F.

3. The secondary chamber thermocouple shall be located as close to the secondary chamber exit as possible or at a location that represents a minimum of a one second residence time at 1800°F.

4. An operator shall always be in attendance whenever the incinerator is operating.

5. Operation of the incinerator shall be consistent with the operating procedures included with the permit application except where conditions of this approval may indicate otherwise.

6. An incinerator operating procedures manual shall be maintained on-site at all times. All personnel who operate the incinerator shall be familiar with the operating procedures.

C. Continuous Monitors

1. The secondary chamber temperature shall be monitored and recorded continuously.

D. Recordkeeping and Reporting

1. The owner/operator shall maintain the following records concerning the process equipment and waste material:
  - a. The daily operating hours of the incinerator.
  - b. The number of batches processed in each chamber in the incinerator each day including the date and time the incinerator is loaded for each batch.
  - c. The weight of each batch in pounds.
  - d. A description of the waste material processed in the incinerator for each batch.
  - e. The operating temperature of the secondary chamber.
2. The owner/operator shall notify the Office of Air Resources, in writing, of the date of actual initial start-up of the incinerator no later than fifteen days after such date.
3. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.
4. The owner/operator shall notify the Office of Air Resources in writing of any planned physical or operational change to any equipment that would:
  - a. Change the representation of the facility in the application.
  - b. Alter the applicability of any state or federal air pollution rules or regulations.
  - c. Result in the violation of any terms or conditions of this permit.
  - d. Qualify as a modification under APC Regulation No. 9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

5. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:
  - a. The name and location of the facility;
  - b. The subject source(s) that caused the noncompliance with the permit term;
  - c. The time and date of first observation of the incident of noncompliance;
  - d. The cause and expected duration of the incident of noncompliance;
  - e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate;
  - f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.
6. All records required in this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

E. Other Permit Conditions

1. To the extent consistent with the requirements of this permit and applicable federal and state laws, the facility shall be designed, constructed and operated in accordance with the representation of the facility in the permit application.
2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources.

3. At all times, including periods of startup, shutdown and malfunction, the owner/operator 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.

F. Malfunctions

1. The owner/operator shall shut down the incinerator in the event of a malfunction that results in, or that could result in, emissions in excess of the permit limits. The incinerator shall remain shutdown until the malfunction has been identified and corrected.
2. The owner/operator may seek to establish that a malfunction 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 owner/operator must demonstrate to the Office of Air Resources that:
  - a. The malfunction was not attributable to improperly designed equipment, lack of preventative maintenance, careless or improper operation or operator error;
  - b. The malfunction is not part of a recurring pattern indicative of inadequate design, operation or maintenance;
  - c. Repairs were performed in an expeditious fashion.
  - d. All reasonable steps were taken to minimize emissions during the period of time that repairs were performed.
  - e. Emissions during the period of time that the repairs were performed will not:
    - (1) Cause and 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
    - (2) Cause or contribute to air pollution in violation of any applicable state or national ambient air quality standard.

- f. The reasons that it would be impossible or impractical to cease the source operation during said period.
- g. The owner/operator's actions 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 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 owner/operator shall have the burden of proof in seeking to establish that noncompliance was due to unavoidable increases in emissions attributable to the malfunction.

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