

4 November 2013

Mr. Michael Duchesne  
District Operations Manager  
Univar USA, Incorporated  
6 Harborside Blvd.  
Providence, RI 02905

Dear Mr. Duchesne:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your request for the installation of air pollution control equipment at your facility located at 6 Harborside Blvd, Providence, RI.

Enclosed is a minor source permit issued pursuant to our review of your request (Approval No. 2234).

If there are any questions concerning this permit, please contact me at 401-222-2808, extension 7110 or at [ruth.gold@dem.ri.gov](mailto:ruth.gold@dem.ri.gov).

Sincerely,

Ruth A. Gold  
Supervising Air Quality Specialist  
Office of Air Resources

cc: Providence Building Official  
Dale Raczynski, Epsilon Associates, Inc.

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

MINOR SOURCE PERMIT

UNIVAR USA, INCORPORATED

APPROVAL NO. 2234

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

UNIVAR USA, INCORPORATED

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For the following:

*Installation of a Duall Model No. PT506-20R packed bed scrubber to treat emissions from the transfer of Hydrogen Chloride (HCl) and Nitric Acid (HNO<sub>3</sub>) (Approval No. 2234). The scrubber will replace the existing Ambiaire Model PT-050 packed bed scrubber (Approval No. 1207).*

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Located at: 6 Harborside Blvd., Providence

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**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 *Univar USA, Incorporated* 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.**

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Douglas L. McVay, Chief  
Office of Air Resources

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Date of Issuance

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

Permit Conditions and Emission Limitations

**UNIVAR USA, INCORPORATED**

**APPROVAL No. 2234**

A. Emission Limitations

1. Hydrochloric Acid (HCl)

- a. HCl emissions generated from HCl unloading and loading transfers and storage shall be reduced by 99% or greater before discharge to the atmosphere.
- b. The total quantity of HCl emissions discharged to the atmosphere from the scrubber exhaust shall not exceed:
  - (1) 0.77 pounds per hour; and,
  - (2) 1,699 pounds in any consecutive 12-month period.

2. Nitric Acid (HNO<sub>3</sub>)

- a. HNO<sub>3</sub> emissions generated from HNO<sub>3</sub> unloading and loading transfers and storage shall be reduced by 98% or greater before discharge to the atmosphere.
- b. The total quantity of HNO<sub>3</sub> emissions discharged to the atmosphere from the scrubber exhaust shall not exceed 0.046 pounds per hour.

3. Opacity

There shall be no visible emissions from the scrubber exhaust. 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 requirement.

4. Odors

Any air contaminant or combination of air contaminants discharged to the atmosphere from the facility shall not create an objectionable odor beyond the property line of this facility. Odor evaluations shall be conducted according to the provisions of Air Pollution Control Regulation No. 17.

B. Operating Requirements

1. HCl and HNO<sub>3</sub> emissions from the unloading and loading transfer and storage operations shall be captured, contained and routed to the scrubber for treatment prior to discharge to the atmosphere.

C. Monitoring

1. The pH of the water recycle stream for the scrubber shall be monitored continuously and checked a minimum of once per day and the date, time, and measurement shall be recorded.
2. The pressure drop across the packed bed stage of the scrubber shall be monitored continuously and checked a minimum of once per day and the date, time, and measurement shall be recorded.
3. The scrubbing liquid flow rate shall be monitored continuously and checked a minimum of once per day and the date, time, and measurement shall be recorded.
4. The monitoring devices used for the measurement of pH, pressure drop and flow rate shall be calibrated periodically consistent with the manufacturer's recommendations.

D. Stack Testing

1. Within 180 days of startup of the scrubber, performance testing shall be conducted to demonstrate compliance with the emission limitations.
2. A stack testing protocol shall be submitted to the Office of Air Resources for review at least 60 days prior to the performance of any stack tests. The owner/operator shall provide the Office of Air Resources at least 60 days prior notice of any stack test.
3. All test procedures used for stack testing shall be approved by the Office of Air Resources prior to the performance of any stack tests.
4. The owner/operator shall install any and all test ports or platforms necessary to conduct the required stack testing, provide safe access to any platforms and provide the necessary utilities for sampling and testing equipment.
5. All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emissions limitations.
6. A final report of the results of stack testing shall be submitted to the Office of Air Resources no later than 60 days following completion of testing.

7. All stack testing must be observed by the Office of Resources or its authorized representatives to be considered acceptable, unless the Office of Air Resources provides authorization to the owner/operator to conduct the stack testing without an observer present.

E. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the total quantity of HCl and HNO<sub>3</sub> discharged to the atmosphere from all operations. Hourly emission averages shall be calculated. These hourly averages shall be used for comparison to emission limitations. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
2. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of emissions discharged to the atmosphere from the entire facility exceeds:
  - a. 0.77 pounds per hour or 1,699 pounds in any consecutive 12-month period for HCL;
  - b. 0.046 pounds per hour for HNO<sub>3</sub>.
3. The owner/operator shall maintain records of the pH, pressure drop and flow rate measurements for the scrubber.
4. The owner/operator shall notify the Office of Air Resources, in writing, of the date of actual initial start-up of the new scrubber no later than fifteen days after such date.
5. 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.
6. 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.
7. 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.
8. 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.

F. Malfunctions

- 1. A malfunction of any air pollution control system that would result in the exceedance of any emission limitation contained in this permit will necessitate the shutdown of the acid transfer process. The acid transfer process must remain shutdown until the malfunction has been identified and corrected.
- 2. The owner/operator 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 owner/operator must demonstrate to the Office of Air Resources that:

- a. The malfunction was not attributable to improperly designed air pollution control equipment, lack of preventative maintenance, careless or improper operation, or operator error;
- b. The malfunction was not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- c. 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.
- d. All possible steps were taken to minimize emissions during the period of time that the repairs were performed.
- e. Emissions during the period of time that the repairs were performed will not:
  - (1) 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
  - (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, 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 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.

#### G. 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. There shall be no bypassing of the scrubber during times when HCl and HNO<sub>3</sub> emissions are being generated.
3. Air pollution control permit Approval No. 1207, issued for the installation of an Ambiaire PT-050 packed bed scrubber on 24 September 1992 is revoked. This revocation will become effective upon start-up of the replacement scrubber.
4. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all reasonable 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.
5. 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.
6. The emission and dispersion characteristics of the HCl and HNO<sub>3</sub> emission sources shall be consistent with the parameters used in the air quality modeling to demonstrate that the emissions from the facility do not cause an impact which exceeds the Acceptable Ambient Level for any air toxic contaminant. The Office of Air Resources, in its sole discretion, may reopen this minor source permit if it determines that the emission and dispersion characteristics have changed significantly and that emission limitations must be revised and/or added to this permit to ensure that the facility does not cause or contribute to air pollution in violation of any Acceptable Ambient Level.