

30 May 2012

Mr. Brian Ferland
Vishay Electro-films
111 Gilbane Street
Warwick, RI 02886

Dear Mr. Ferland:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the operation of air pollution control equipment at your facility located at 111 Gilbane Street, Warwick.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval No. 2168).

If there are any questions concerning this permit, please contact me at 222-2808, extension 7430.

Sincerely,

Darren J. Austin
Air Quality Specialist
Office of Air Resources

cc: Warwick Building Official

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

MINOR SOURCE PERMIT

VISHAY ELECTRO-FILMS

APPROVAL NO. 2168

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

Vishay Electro-films

For the following:

Installation of a Mapco horizontal fume scrubber, Model No. MW-100-5-5-R to treat chromic acid fumes generated from Wet Bench 04 and Wet Bench 08.

Located at: *111 Gilbane 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 *Vishay Electro-films* 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 Emission Limitations

VISHAY ELECTRO-FILMS

APPROVAL NO. 2168

A. Emission Limitations

1. The quantity of nickel discharged to the atmosphere from Wet Bench 04 and Wet Bench 08 shall not exceed 0.4 pound in any consecutive 12-month period.
2. Chromic acid emissions generated from Wet Bench 04 and Wet Bench 08 shall be reduced by 99% or greater before discharge to the atmosphere.
3. Visible emissions from the scrubber exhaust shall not exceed 10% opacity (six-minute average).

B. Operating Requirements

1. All emissions generated from Wet Bench 04 and Wet Bench 08 shall be captured, contained and routed to the horizontal fume scrubber for treatment prior to discharge into the atmosphere.

C. Monitoring

1. The pH of the scrubbing liquid shall be monitored continuously and checked a minimum of once per shift and the date, time, and measurement shall be recorded.
2. The pressure drop across the scrubber shall be monitored continuously. Pressure drop shall be checked a minimum of once per day, and the date, time and measurement shall be recorded.
3. The monitoring devices used for the measurement of pH and pressure drop shall be calibrated periodically consistent with the manufacturer's recommendations.

D. Recordkeeping and Reporting

1. The owner/operator shall maintain records of the pH and pressure drop measurements for the scrubber.
2. 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.

3. 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.

4. 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.
5. All records required as a condition of this approval must be made available to the Office of Air Resources or its representative upon request. These records must be maintained for a minimum of five years after the date of each record.

E. Malfunctions

1. Malfunction means a sudden and unavoidable breakdown of process or control equipment. In the case of a malfunction of any air pollution control system, 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 an air pollution control system is expected or may reasonably be expected to continue for longer than 24 hours and if the owner/operator wishes to operate the source on which it is installed 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:
 - a. Identification of the specific air pollution control system and source on which it is installed;
 - b. The expected period of time that the air pollution control system will be malfunctioning or out of service;
 - c. The nature and quantity of air contaminants likely to be emitted during said period;
 - d. Measures that will be taken to minimize the length of said period;
 - e. The reasons that it would be impossible or impractical to cease the source operation during said period.

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 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. 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 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.

F. Other Permit Conditions

1. To the extent consistent with the requirements of this approval 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 Wet Bench 04 or Wet Bench 08 is in operation.
3. 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.
4. At all times, including periods of startup, shutdown and malfunction, the permittee shall, to the extent practicable, maintain and operate the acid gas scrubber 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, and review of operating and maintenance procedures and inspection of the source.

5. Approval No. 2020 issued on 28 January 2008 for the installation of an IPF Model No. H153-3400 PP horizontal fume scrubber shall be revoked effective with the startup of the MAPCO horizontal fume scrubber.

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