

10 July 2014

Robert Perrotti  
Paint & Environmental Supervisor  
AMTROL INC.  
1400 Division Road  
West Warwick, RI 02893

Dear Mr. Perrotti:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your minor source permit application for the installation of process equipment at your facility, located 1400 Division Road, West Warwick, RI.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval No. 2254 and 2255).

If there are any questions concerning this permit, please contact me at 401-222-2808, extension 7415 or at [stephen.stamand@dem.ri.gov](mailto:stephen.stamand@dem.ri.gov).

Sincerely,

Stephen G. St. Amand  
Air Quality Specialist  
Office of Air Resources

cc: West Warwick Building Official  
Kelly A. Cowan – Woodard & Curran

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

MINOR SOURCE PERMIT

AMTROL INC.

APPROVAL NOs. 2254 and 2255

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

*AMTROL INC.*

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For the following:

*Installation of two spray coating booths for the surface coating of miscellaneous metal parts*

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*(Approval Nos. 2254 and 2255).*

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Located at: *1400 Division Road, West Warwick, Rhode Island*

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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 *AMTROL INC.* 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

**AMTROL INC.**

**APPROVAL NOs. 2254 and 2255**

**A. Emission Limitations**

1. Volatile Organic Compounds (VOC)

- a. The VOC content of each coating used for coating automobile LP and vapor propane tanks shall not exceed 3.5 lbs VOC/gallon of coating (excluding water and exempt compounds, as applied). This limitation is based on a determination that the coatings used are categorized as “extreme performance coatings” based on the following definition:

*“A coating used on a metal surface where the coated surface is, in its intended use, subject to the following:*

*(A) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solution; or  
(B) Repeated exposure to temperatures in excess of 250° F; or  
(C) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents. “*

- b. The total quantity of VOC emissions discharged to the atmosphere from the entire facility shall not exceed 8,167 pounds of VOC per calendar month based upon a 12-month rolling average.

2. Hazardous Air Pollutant (HAP) Emission Limitations

The total quantity of HAP emissions discharged to the atmosphere from the entire facility shall not exceed 1,500 pounds of any one HAP or 4,000 pounds of any combination of HAPs per calendar month based upon a 12-month rolling average. HAP shall mean an air pollutant which has been listed pursuant to Section 112(b) of the Clean Air Act Amendments of 1990.

3. Listed Toxic Air Contaminants

The total quantity of emissions discharged to the atmosphere from the entire facility, of any listed toxic air contaminant shall not exceed the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9, based upon a 12-month rolling average. Emissions from

activities exempted from the provisions of APC Regulation No. 22 in subsection 22.2.2 are not included in this limitation.

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. Compliance Demonstration and Testing**

1. VOC Content of Coatings Formulated On-Site

a. For each coating that is formulated on-site (by thinning or mixing with another material), the VOC content of the coating shall be determined by:

(1) Maintaining batch formulation information documenting the VOC content of each coating; or,

(2) Using EPA Method 24 or an alternative procedure approved by EPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A,” EPA-340/1-91-010.

b. If the VOC content of a coating determined by an EPA Method 24 test is greater than that indicated by the facility’s formulation data, the EPA Method 24 test shall govern.

2. VOC Content of Coatings As-Supplied

a. For each coating that is not formulated on-site by thinning or mixing with another material (“as-supplied”), the VOC content of the coating shall be determined by documentation furnished by the coating supplier or an outside laboratory that provides the VOC content, water content, exempt compounds content, solids content and density of each coating used.

b. VOC, water, exempt compounds and solids content, by weight, of as-supplied coatings shall be determined with EPA Method 24 or an alternative procedure approved by EPA and the Office of Air Resources. Sampling procedures shall follow the guidelines presented in “Standard Procedures for Collection of Coating and Ink Samples for VOC Content Analysis by Reference Method 24 and Reference Method 24A”, EPA-340/1-91-010.

- c. If the owner/operator uses a coating that does not release VOC reaction by products during the cure; for example, if all VOC is solvent; the owner/operator may request permission to use batch formulation information to determination VOC content. If the VOC content of a coating determined by an EPA Method 24 test is greater than that indicated by the formulation data, the EPA Method 24 test shall govern.

### **C. Operating Requirements**

1. High Volume Low Pressure (HVLV) or equivalent, spray guns shall be used for surface coating operations in each spray booth. An equivalent spray gun must achieve a transfer efficiency of at least 70%.
2. Each spray booth shall be equipped, at all times, with overspray filter media that treats all exhausted air prior to discharge to the atmosphere.
3. A gauge shall be installed and maintained to indicate the static pressure differential across the overspray filter media.
4. All materials containing VOC shall be stored in containers that are closed at all times except when material is being added or removed.
5. All equipment and activities necessary to perform spray-applied painting operations shall not use paints which contain metal fabrication and finishing HAP (MFHAP) as defined in 40 CFR 63.11522. This requirement applies to all equipment used to apply cleaning materials to a substrate to prepare it for paint application (surface preparation) or to remove dried paint; to apply a paint to a substrate (paint application) and to dry or cure the paint after application; or to clean paint operation equipment (equipment cleaning).

### **D. Recordkeeping and Reporting**

1. The owner/operator shall collect and record the following information each month:
  - a. The name, identification number and amount of each coating, as applied;
  - b. The name, identification number and amount of each material containing VOC and/or HAP used at the facility;
  - c. The mass of VOC and HAP per volume (excluding water and exempt compounds), as applied, for each coating used;
  - d. A Material Safety Data Sheet (MSDS) showing the VOC and HAP content of each material used at the facility;

- e. The type and amount of solvent used as thinners and in cleaning operations at the facility.
2. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the total quantity of VOC discharged to the atmosphere from all operations at the entire facility. Monthly and 12-month rolling averages shall be calculated. The 12-month rolling average shall be used for comparison with emission limitations. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
3. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of VOCs discharged to the atmosphere from all operations at this facility exceeds 8,167 pounds per calendar month (12-month rolling average).
4. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the total quantity of HAP emissions discharged to the atmosphere from all operations at the entire facility. Monthly and 12-month rolling averages shall be calculated. The 12-month rolling average shall be used for comparison with emission limitations. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
5. The owner/operator shall notify the Office of Air Resources in writing, within 15 days of determining that the total quantity of HAP emissions discharged to the atmosphere from all operations at this facility exceeds 1,500 pounds of any one (1) HAP or 4,000 pounds of any combination of HAPs per calendar month (12-month rolling average).
6. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the total quantity of each listed toxic air contaminant in Appendix A of Air Pollution Control Regulation No. 9 discharged to the atmosphere from all operations for the entire facility. Monthly and 12-month rolling averages shall be calculated. The 12-month rolling average shall be used for comparison with emission limitations. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
7. The owner/operator shall notify the Office of Air Resources, in writing, within 15 days of determining that the total of emissions discharged to the atmosphere from the entire facility, of any listed toxic air contaminant exceeds the minimum quantity for that contaminant as specified in Appendix A of Air Pollution Control Regulation No. 9.

8. The owner/operator, before changing the method of compliance from complying coatings to daily weighted averaging or control devices, shall submit a Compliance Certification Plan to the Office of Air Resources for review and approval. Such plan shall include:
  - a. The name and location of the facility;
  - b. The name, address, telephone number of the person responsible for the facility;
  - c. The name and identification number of the emission units which will comply by means of daily-weighted averaging or control device;
  - d. For daily-weighted averaging:
    - i. The instrument or method by which the permittee will accurately measure or calculate the volume of each coating (excluding water), as applied, used each day on each emission unit;
    - ii. The method by which the permittee will create and maintain records each day as required by Subsection 19.5.2(c) of APC Regulation No. 19; and
    - iii. The time at which the facility's day begins if a time other than midnight local time is used to define a day;
  - e. For control devices:
    - i. The name and identification number of each coating, as applied, on each coating line or operation;
    - ii. The mass of VOC per volume coating solids applied and the gallons of solids of each coating applied;
    - iii. Identification of each control device which will be or has been installed and date of installation;
    - iv. Identification of coating lines which will be controlled by each control device and documentation of expected capture and destruction efficiency or reduction efficiency; and
    - v. Control device design information;
      - (a) For thermal incinerators – design combustion temperature (°F);

- (b) For catalytic incinerators – design exhaust gas temperature (°F) design temperature rise across catalyst bed (°F), anticipated frequency of catalyst change, and catalyst changes;
    - (c) For condensers – design inlet temperature of cooling medium (°F) and design exhaust gas temperature (°F); and
    - (d) For carbon adsorbers – design pressure drop across the adsorber, VOC concentration at breakthrough.
  - f. Information describing the effect of the change on the emissions of any air contaminant; and
  - g. A demonstration that emissions from the stationary source will not cause an increase in the ground level ambient concentration at or beyond the property line in excess of that allowed by APC Regulation No. 22.
9. The owner/operator shall notify the Office of Air Resources, in writing, of the actual initial startup of the spray booths no later than 15 calendar days after such date. To satisfy the Final Compliance Certification requirements of APC Regulation 19.5.3(b), the report shall include:
- a. A certification that the facility is in compliance with the emission limitations in Subsection 19.3.1 by the use of complying coatings;
  - b. The name, identification number, mass of VOC per volume (minus water) and the volume of each coating (minus water), as applied, for each spray booth; and
  - c. Identification of any changes from the permit application.
10. To satisfy the annual registration requirements of APC Regulation 19.6, the owner/operator shall submit to the Office of Air Resources an Annual Air Pollution Inventory Report by April 15<sup>th</sup> each year. The report shall be provided on forms supplied by the Director and shall include the following information:
- a. The name and address of the company and the name and telephone number of a responsible corporate official submitting the registration;
  - b. A description of all operations in the facility where volatile organic compounds are emitted;
  - c. Quantities of coatings, solvents, dissolvers, viscosity reducers, diluents, thinners, reagents, cleaning agents, enamels, lacquers, or paints consumed during the calendar year of record, and



- d. The amount of volatile organic compound per gallon of coating solution (pounds per gallon) for each coating, enamel, lacquer, or paint consumed at the facility during the calendar year of record.
11. 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.
  12. 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 the 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.

13. Deviations from permit conditions shall be reported, in writing, within five (5) business days of the deviation, to the Office of Air Resources and to the USEPA. Reports shall describe the probable cause of such deviations, and any corrective actions or preventative measure taken.
14. 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.

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