



Connecticut Department of

**ENERGY &
ENVIRONMENTAL
PROTECTION**

**BUREAU OF AIR MANAGEMENT
NEW SOURCE REVIEW PERMIT
TO CONSTRUCT AND OPERATE A STATIONARY SOURCE**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-3a of the Regulations of Connecticut State Agencies (RCSA).

Owner/Operator	Hamilton Sundstrand Corporation
Address	One Hamilton Road, Windsor Locks, CT 06096
Equipment Location	One Hamilton Road, Windsor Locks, CT 06096
Equipment Description	Aluminum Heat Exchanger Coating Process
Town-Permit Numbers	213-0043
Premises Number	002
Stack Number	68
Modification Issue Date	August 17, 2015
Prior Permit Issue Date(s)	12/22/1993 (original) 8/13/2009 (modification)
Expiration Date	None

/s/ Anne Gobin for
Robert J. Klee
Commissioner

August 17, 2015
Date

This permit specifies necessary terms and conditions for the operation of this equipment to comply with state and federal air quality standards. The Permittee shall at all times comply with the terms and conditions stated herein.

PART I. DESIGN SPECIFICATIONS

A. General Description

Hamilton Sundstrand Corporation operates a heat exchanger coating process. The process coats miscellaneous metal components of heat exchanger units used in both military and commercial aircraft. The constituents of the process include a spray booth, a wiping table, a blowdown station, a catch basin and electrically heated curing ovens. The flow of the process consists of suspending the heat exchanger components over the catch basin while coating is pumped through perforated hoses over and into these components from a drum of premixed coating. The excess coating is caught in the catch basin and then pumped back into the drum of coating for reuse. Excess coating on the metal components is wiped off by hand using cloth rags with acetone. At the blowdown station the metal parts are air blown at ambient temperature for a minimum of 30 minutes after which the metal parts are sprayed as necessary with additional coating in the spray booth. All the coated metal parts are then placed in the electrical heated curing ovens to complete the coating process.

B. Equipment Design Specifications

1. Type of Spray Gun: High Volume Low Pressure (HVLP).
2. Number of Spray Guns per Booth: 1
3. Maximum Rated Spray Gun Throughput (gallons per hour): 10
4. Minimum Spray Gun Transfer Efficiency (%): 35
5. Type of Pump used at Catch Basin: Air Operating Double Diaphragm Pump operating at 120 psi.
6. Maximum Catch Basin Pump Flow Rate (gallons per hour): 15

C. Control Equipment Design Specifications

1. Control Equipment: Dry Filter System
2. Particulate Matter Filter Arrestance Efficiency: 99% or Greater

D. Stack Parameters

1. Spray Booth
 - a. Minimum Stack Height (ft): 40
 - b. Maximum Exhaust Temperature (°F): ambient
 - c. Maximum Exhaust Gas Flow Rate (acfm): 8000
 - d. Minimum Distance from Stack to Property Line (ft): 590

2. Catch Basin
 - a. Minimum Stack Height (ft): 40
 - b. Maximum Exhaust Temperature (°F): ambient
 - c. Maximum Exhaust Gas Flow Rate (acfm): 2377
 - d. Minimum Distance from Stack to Property Line (ft): 590
3. Blowdown Exhaust
 - a. Minimum Stack Height (ft): 40
 - b. Maximum Exhaust Temperature (°F): ambient
 - c. Maximum Exhaust Gas Flow Rate (acfm): 5348
 - d. Minimum Distance from Stack to Property Line (ft): 590

PART II. OPERATING CONDITIONS AND MAINTENANCE REQUIREMENTS

A. Equipment

1. Maximum VOC Content per Gallon of Coating, as applied (lb/gal), minus exempt VOC and water, shall be limited such that the emission limits in Part III of this permit are not exceeded.
2. The maximum volumetric limits on coating usage and cleaning solvent usage (gal/hr, gal/day, gal/yr) shall be limited such that the emission limits in Part III of this permit are not exceeded.
3. The coating and cleaner usage limits apply to any of the following components or mixtures of the following components: Paint, Enamel, Lacquer, Catalyst, Primer, Reducer, Sealer, Diluent, Additive, or other Coating Material or Preparation.
4. The total VOC emissions from all miscellaneous metal parts and products surface coating operations at this premises shall be limited to 1,666 lb/month. Exceedance of this limit shall subject this source to the requirements of RCSA §22a-174-20(s).
5. The Permittee shall maintain and operate the equipment in order to obtain a Particulate Matter Filter Arrestance Efficiency of 99.0 % or greater.
6. The pressure drop across the filter system in inches of water/mercury shall not exceed the manufacturer recommendations.
7. The Permittee shall comply with all specifications and written recommendations set by the manufacturer for maintaining and operating the spray gun, spray booth, catch basin, blowdown, and particulate filter in order to achieve their guaranteed transfer and capture efficiencies. The control equipment shall be in place at all times.
8. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.
9. The Permittee shall properly operate the control equipment at all times that this equipment is in operation or emitting air pollutants.

10. The Permittee shall cover all open drums and vessels that contain solvents, cleaners, coatings, or cleaning rags so as to minimize the amount of VOCs emitted to the atmosphere. Empty containers shall be disposed of in a manner consistent with handling techniques for hazardous materials, as applicable.

PART III. ALLOWABLE EMISSION LIMITS

The Permittee shall not cause or allow this equipment to exceed the emission limits stated herein at any time.

A. Criteria Pollutants

Pollutant	lb/month	tpy
VOC	208	1.25

Demonstration of compliance with the above emission limits may be met by calculating the emission rates using the following:

- Material balances from usage data and Material Safety Data Sheets (MSDS).

The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

B. Hazardous Air Pollutants

Chemical compounds, e.g., coatings, solvents, etc., used by this source now or in the future, either for production or on a trial basis, which contain hazardous air pollutants (HAPs) that are regulated under RCSA §22a-174-29 are allowed provided that:

1. The Permittee demonstrates that the HAPs actual stack concentration (ASC) does not exceed the maximum allowable stack concentration (MASC) using the equation in RCSA §22a-174-29(c). The Permittee shall be allowed to use the adjustment factor in RCSA §22a-174-29(i).
2. The Permittee keeps records of all compounds used, MSDSs or the manufacturer's technical data sheets.

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring

1. When the spray booth is in use the Permittee shall monitor the pressure drop across the filter system in inches of water/mercury.
2. The Permittee shall inspect and replace the particulate filter as recommended by the manufacturer.

B. Record Keeping

1. The Permittee shall keep records of all coatings and cleaners used in this booth. Such records shall contain the following information:
 - a. A current list of coatings in use with name, VOC content as applied, minus exempt VOC and water, and solids content as applied;
 - b. A current list of cleaners in use with name, VOC content as applied, minus exempt VOC and water, and solids content as applied;
2. The Permittee shall keep the following records daily and monthly:
 - a. Date of application;
 - b. Name of coating or cleaner used;
 - c. Amount of each coating and cleaner used in the spray booth;
 - d. Amount of cleaner used at the wipe down table;
 - e. Hours of operation;
 - f. Amount of VOC emitted (lb or ton);
 - g. Amount of PM-10 emitted (lb or ton).

Additionally, the 12 month record of non-exempt VOC emissions shall be determined by adding the current month's record to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.

3. The Permittee shall keep monthly and annual records of the type and quantity of any solvent used to clean the guns and booth and calculate any non-exempt VOC emissions from these cleaning solvents. These non-exempt VOC emissions shall be counted toward the monthly and annual allowable VOC emission limits.
4. The permittee shall make and keep accurate annual records of the quantity and type of solvents spilled, evaporated, or manifested as waste material.
5. The Permittee shall maintain annual records of premises hazardous air pollutant (HAPs) emissions to demonstrate that the source does not exceed major source thresholds (25 tons per year or more of aggregated federal HAPs and/or 10 tons per year or more of any one federal HAP) and thereby not subject to the requirements of an affected source under 40 CFR 63, Subpart GG, "Aerospace Manufacturing and Rework Facility NESHAP".
6. The Permittee shall keep material safety data sheets (MSDS) or manufacturer's technical data sheets for each paint and solvent used and for five years after the discontinuation of use of a coating. Such material safety data sheets or manufacturer's technical data sheets must include the quantity and type of each hazardous air pollutant contained in the paint or solvent.
7. The Permittee shall make and keep records of manufacturer's specifications and written recommendations for maintenance and operation of the equipment.
8. For each day the spray booth is in use the Permittee shall make and keep a record of the pressure drop across the filter system in inches of water/mercury.
9. The permittee shall keep sufficient records to determine compliance with all materials usage and emissions limitations set forth in this permit.

10. The Permittee shall keep all required records on the premises to determine compliance with the terms and conditions of this permit in accordance with RCSA Section 22a-174-4. Such records shall be made available upon request by the commissioner and kept for the duration of the permit or for the previous five years, whichever is less.

PART V. SPECIAL REQUIREMENTS

- A. The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor beyond the property boundary of the premises that constitutes a nuisance as set forth in RCSA Section 22a-174-23. [STATE ONLY REQUIREMENT]
- B. The Permittee shall operate this facility at all times in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations, as set forth in RCSA Sections 22a-69-1 through 22a-69-7.4. [STATE ONLY REQUIREMENT]

PART VI. ADDITIONAL TERMS AND CONDITIONS

- A. This permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the regulated activity in compliance with all applicable requirements of any federal, municipal or other state agency. Nothing in this permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B. Any representative of the DEEP may enter the Permittee's site in accordance with constitutional limitations at all reasonable times without prior notice, for the purposes of inspecting, monitoring and enforcing the terms and conditions of this permit and applicable state law.
- C. This permit may be revoked, suspended, modified or transferred in accordance with applicable law.
- D. This permit is subject to and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut and conveys no property rights in real estate or material, nor any exclusive privileges, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby. This permit shall neither create nor affect any rights of persons of municipalities who are not parties to this permit.
- E. Any document, including any notice, which is required to be submitted to the commissioner under this permit shall be signed by a duly authorized representative of the Permittee and by the person who is responsible for actually preparing such document, each of whom shall certify in writing as follows: "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under Section 22a-175 of the Connecticut General Statutes, under Section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute."

- F.** Nothing in this permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- G.** Within 15 days of the date the Permittee becomes aware of a change in any information submitted to the commissioner under this permit, or that any such information was inaccurate or misleading or that any relevant information was omitted, the Permittee shall submit the correct or omitted information to the commissioner.
- H.** The date of submission to the commissioner of any document required by this permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this permit, including but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is personally delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this permit, the word "day" means calendar day. Any document or action which is required by this permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.
- I.** Any document required to be submitted to the commissioner under this permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.