



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	Pratt & Whitney, Division of United Technologies Corporation
Address	1 Aircraft Road, Middletown, CT 06457
Equipment Location	1 Aircraft Road, Middletown, CT 06457
Equipment Description	ATR Industries, Inc. Open Spray Booth
Town-Permit Numbers	104-0153
Premises Number	0007
Stack Number	42
Permit Issue Date	November 13, 2017
Expiration Date	None

/s/ Robert Kaliszewski
Robert E. Kaliszewski,
Deputy Commissioner

11/13/17
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

Pratt & Whitney operates a spray booth for the application of aerospace specialty coatings (subject to 40 CFR Part 63 Subpart GG), research and development coatings, Department of Defense classified coatings, other exempt coatings, and support equipment coatings (not subject to 40 CFR Part 63 Subpart GG). Coatings are applied to experimental and production aircraft engine components and ground-based gas turbine engine components. Due to the potential use of RCSA §22a-174-20(s) non-compliant coatings, the premises is subject to a limit of 1,666 lb/calendar month for VOC emissions.

The booth uses a 3-stage particulate filter system to control particulate emissions, there is no add-on control for VOC emissions.

B. Equipment Design Specifications

1. Type of Spray Gun: High Volume – Low Pressure (HVLP)
2. Number of Concurrently Operating Spray Guns per Booth: 1
3. Maximum Rated Spray Gun Throughput (gallons per hour): 1.9
4. Minimum Transfer Efficiency (%): 65

C. Control Equipment Design Specifications

1. Particulate Filter
 - a. Make and Model: ATR custom built, or equivalent
 - b. Filtering Material: polyester, or equivalent
 - c. Minimum Particulate Matter Filter Removal Efficiency (%): 99.95

D. Stack Parameters

1. Minimum Stack Height (ft): 40
2. Minimum Exhaust Gas Flow Rate (acfm): 10,500
3. Minimum Stack Exit Temperature (°F): 68
4. Minimum Distance from Stack to Nearest Property Line (ft): 1,600

PART II. OPERATIONAL CONDITIONS

A. Equipment

1. Maximum VOC Content per Gallon of Coating, excluding water and exempt VOC, as Applied (lb/gal): Not to exceed applicable VOC content limits in accordance with 40 CFR Part 63 Subpart GG

2. Maximum Hourly Coating Usage, as Applied (gal): 1.9
3. Maximum Annual Coating Usage, as Applied (gal): Not to exceed the allowable annual emissions limits in Part III.A of this permit
4. The coating 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
5. Work Practices
 - a. VOC containing coating, diluent or cleaning solvent, including a coating mixed on the premises, shall be stored in a nonabsorbent, non-leaking container. Such a container shall be kept closed at all times except when the container is being filled, emptied or is otherwise actively in use.
 - b. Spills and leaks of VOC-containing coating, diluent or cleaning solvent shall be minimized. Any leaked or spilled VOC-containing coating, diluent or cleaning solvent shall be absorbed and removed immediately.
 - c. Absorbent applicators, such as cloth and paper, which are moistened with a VOC-containing coating or solvent, shall be stored in a closed, nonabsorbent, non-leaking container for disposal or recycling.
 - d. VOC-containing coating, diluent and cleaning solvent shall be conveyed from one location to another in a closed container or pipe.

B. Control Equipment

1. Maximum Pressure Drop Across Filter Media: 2.0 inches H₂O
2. The filter media shall be changed when the pressure drop exceeds or falls below the manufacturer's recommended operating range or more frequently if required.

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/hr	lb/month	tpy
PM	0.13		0.03
PM ₁₀	0.13		0.03
PM _{2.5}	0.13		0.03
VOC		1,666 ¹	1.83

* Note: Premise-Wide limit of 1,666 pounds of VOC emissions per month from all miscellaneous metal and plastic parts surface coating operations.
[RCSA §22a-174-20(s)(7)(G)]

B. Hazardous Air Pollutants

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA Section 22a-174-29. [STATE ONLY REQUIREMENT]

- C.** Demonstration of compliance with the above emission limits may be met by calculating the emission rates using emission factors from the following sources:
- Material Balance
 - For Particulate only, the material balance calculations may assume a transfer efficiency of 65% and an overall particulate control efficiency of 99.95%.

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.

PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Monitoring

1. The Permittee shall continuously monitor the pressure drop across the filter media. The Permittee shall maintain an interlock system which will automatically shut down the coating spray application system if the pressure drop exceeds or falls below the filter manufacturer's recommended limits.
2. The Permittee shall perform inspections of the control devices as recommended by the manufacturer.

B. Record Keeping

1. The Permittee shall keep daily records for each coating and diluent used, such records shall include:
 - a. Date coating used;
 - b. Description of coating, including name and density (lb/gal);
 - c. Volatile organic compound content by weight (lb VOC/gal);
 - d. Water and exempt VOC content by weight (lb/gal);
 - e. Quantity of coating used (gal/day);
 - f. Quantity of diluent used for each coating (lb, gallons); and
 - g. Classification of each coating or solvent used (i.e. primers, topcoats, specialty coating, research and development coating).
2. The Permittee shall calculate and record the monthly and consecutive 12 month VOC, PM, PM₁₀, and PM_{2.5} emissions. The consecutive 12 month VOC, PM, PM₁₀, and PM_{2.5} emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
3. The Permittee shall make and keep records showing compliance with the Premise-Wide limit of 1,666 pounds of VOC emissions per calendar month from all miscellaneous metal and plastic parts surface coating operations.

4. The Permittee shall maintain monthly records of all VOC containing cleaning solvents used in the spray booth. Such records shall include:
 - a. Name and description of each cleaning solvent;
 - b. VOC content of each cleaning solvent, as-applied, and the associated calculations;
 - c. VOC content of each cleaning solvent, as supplied;
 - d. The amount of each cleaning solvent used; and
 - e. A description of the type of cleaning equipment and process.
5. The Permittee shall keep material safety data sheets (MSDS) or technical data sheets (TDS) or Safety Data Sheets (SDS) for each paint and solvent used. Such information shall include the quantity and type of each hazardous air pollutant contained in the paint or solvent. For paperwork reduction, these sheets may be kept on computer file in electronic form, access to above paperwork requirement may also be allowed via internet on-demand.
6. The Permittee shall keep records showing compliance with each hazardous air pollutant used in this source.
7. Monthly records shall clearly display, at a minimum, compliance with all materials usage and emissions limitations set forth in this permit.
8. The Permittee shall keep records of equipment manufacturer specifications and written recommendations to include all maintenance, filter replacement and inspections.
9. The Permittee shall keep all records required by this permit for a period of no less than five years and shall submit such records to the commissioner upon request.

C. Reporting

The Permittee shall submit to the Department, reports of any exceedances of the material usage or emission limitations, set forth in this permit, in writing within 30 days of the date of such exceedance. Such report shall at a minimum include:

1. a description of the nature of the exceedance;
2. the duration and magnitude of the exceedance;
3. the steps taken to reestablish compliance;
4. the success of such steps; and
5. the steps taken to assure that compliance is maintained in the future.

PART V. OPERATION AND MAINTENANCE REQUIREMENTS

- A.** The Permittee shall comply with all written recommendations set forth by the manufacturer(s) for maintaining and operating the spray gun, spray booth, and particulate filter in order to achieve their guaranteed transfer and capture efficiencies.
- B.** The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.

PART VI. SPECIAL REQUIREMENTS

- A.** The Permittee shall comply with all applicable sections of the following National Emission Standards for Hazardous Air Pollutants at all times.

Title 40 CFR Part 63, Subpart GG and A

Copies of the Code of Federal Regulations (CFR) are available online at the U.S. Government Printing Office website.

- B.** 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]
- C.** 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 VII. 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.