



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).

<b>Owner/Operator</b>	Pratt & Whiney Division of Raytheon Technologies Corporation
<b>Address</b>	1 Aircraft Road, Middletown, CT 06457
<b>Equipment Location</b>	1 Aircraft Road, Middletown, CT 06457
<b>Equipment Description</b>	ATR Paint Spray Booth
<b>Town-Permit Numbers</b>	104-0139
<b>Premises Number</b>	0007
<b>Stack Number</b>	27
<b>Modification Issue Date</b>	November 20, 2020
<b>Prior Permit Issue Date</b>	12/09/2004
<b>Expiration Date</b>	None

*Tracy R. Babbidge*

for Betsey C. Wingfield  
Deputy Commissioner

11/20/2020

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's Middletown facility includes a spray booth where coatings are applied to engine parts, products and other support equipment. One or more electrically heated ovens are used to provide a final cure of the coating material.

### **B. Equipment Design Specifications**

1. Type of Spray Gun: HVLP
2. Number of Spray Guns per Booth: 1
3. Maximum Rated Spray Gun Throughput (pounds per hour): 10
4. Minimum Transfer Efficiency (%): 65

### **C. Control Equipment Design Specifications**

1. Particulate Filter
  - a. Filtering Material: Panel Filters
  - b. Minimum Particulate Matter Filter Removal Efficiency (%): 99.95

### **D. Stack Parameters**

1. Minimum Stack Height (ft): 33
2. Minimum Exhaust Gas Flow Rate (acfm): 12,000
3. Minimum Stack Exit Temperature (°F): Ambient Building
4. Minimum Distance from Stack to Nearest Property Line (ft): 1,305

## **PART II. OPERATIONAL CONDITIONS**

### **A. Equipment**

1. **Types of Coatings Applied:**
  - a. Specialty coatings as defined by 40 CFR 63, Subpart GG
  - b. Specialty, R&D, Department of Defense "classified", and any other coatings which are exempt from the requirements of 40 CFR 63, Subpart GG
2. Maximum VOC Content of Specialty Coatings as Applied (excluding water and exempt VOCs): Not to exceed VOC content limits as defined in RCSA §22a-174-20(s), as applicable and 40 CFR 63.745.
3. Type of Cleaners Used: All solvent cleaners used shall comply with 40 CFR 63.744

**B. O&M Requirements**

1. The permittee shall properly operate, inspect and maintain the equipment in accordance with the manufacturer's specifications and recommendations.
2. Housekeeping operations shall comply with 40 CFR 63.744(a)

**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 <sub>10/2.5</sub>	0.59		0.11
VOC	10.0	1,666 <sup>1</sup>	1.83

Note 1: Premises-Wide miscellaneous metal surface coating limit [RCSA §22a-174-20(s)(7)]

**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. Special Requirements**

This booth shall only be used for the application of coatings in accordance with Section II.A.1 of this permit. If the booth is subject to a change that would constitute a modification as defined by RCSA 22a-174-1, the permittee must apply for a modification to this permit and the source may become subject to additional requirements of 40 CFR 63, Subpart GG.

**D. 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 from usage data and material data sheets or other technical documentation.
- For particulate emissions 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. RECORD KEEPING AND REPORTING REQUIREMENTS**

### **A. Record Keeping**

1. The Permittee shall keep hourly, daily, and monthly records of all coatings (as applied) and cleaners used in this booth. Such records shall contain the following information along with records required by 40 CFR 63.752:
  - 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)
2. The Permittee shall calculate and record the hourly, daily, and monthly consecutive 12 month VOC, PM, PM<sub>10</sub>, and PM<sub>2.5</sub> emissions. The consecutive 12 month VOC, PM, PM<sub>10</sub>, and PM<sub>2.5</sub> 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 keep monthly records of VOC emissions from all surface coating operations at the premises.
4. The Permittee shall keep monthly records showing compliance with the premises-wide limit of 1,666 pounds of VOC emissions per calendar month from all miscellaneous metal and plastic parts surface coating operations.
5. The Permittee shall keep monthly records of all VOC containing cleaning solvents used in the spray booth in accordance with 40 CFR §63.752(b).
6. The Permittee shall keep safety data sheets (SDS) or technical data sheets (TDS) or product data sheets (PDS) 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.
7. Daily 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 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.

### **B. Reporting**

1. The permittee shall notify the commissioner in writing of any deviation from an emissions limitation, and shall identify the cause or likely cause of such deviation, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures, as follows:

- a. For any hazardous air pollutant, no later than twenty-four (24) hours after such deviation commenced; and
  - b. For any other regulated air pollutant, no later than ten (10) days after such deviation commenced.
2. 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:
- a. a description of the nature of the exceedance;
  - b. the duration and magnitude of the exceedance;
  - c. the steps taken to reestablish compliance;
  - d. the success of such steps; and
  - e. the steps taken to assure that compliance is maintained in the future.

## **PART V. STACK EMISSION TEST REQUIREMENTS**

Stack testing shall not be required for this source at this time.

## **PART VI. OPERATION AND MAINTENANCE REQUIREMENTS**

- A.** The Permittee shall comply with all applicable provisions of 40 CFR 63, Subpart GG.
- B.** Maximum VOC emissions from all miscellaneous metal surface coating operations at the premises shall be limited to 1,666 pounds in any calendar month per RCSA 22a-174-20(s)(7) such that the provisions of subsection 20(s) do not apply
- C.** 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.
- D.** 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.
- E.** 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.
- F.** The permittee shall operate in compliance with fugitive dust regulations in RCSA Section 22a-174-18.
- G.** Legible signs shall be posted, maintained, and kept clearly visible at all times in both the paint blending and spray booth areas which clearly specify the allowable gallon per hour application rates.
- H.** 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. The control equipment shall be place at all times. In addition, methods used to increase transfer efficiency shall include, but not be limited to, the following:

1. Minimize the distance from the spray gun to the object being coated;
  2. Minimize the air velocity in the spray booth (but not below health-based requirements); and
  3. Keep the atomizing air pressure to a minimum level, as recommended by the spray gun manufacturer.
- I. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants.

## **PART VII. 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. Premises Emissions Summary**

1. On January 1<sup>st</sup> of each calendar year, if the potential emissions of NO<sub>x</sub> and/or VOC from the premises are equal to or greater than 25 tons per year per pollutant, then for such pollutant(s), the Permittee shall:
  - a. Monitor NO<sub>x</sub> and/or VOC emissions, as applicable, from the premises for such calendar year.
  - b. Calculate and record annual NO<sub>x</sub> and/or VOC emissions, as applicable, from the premises for such calendar year, in units of tons. The Permittee shall make these calculations on or before February 1<sup>st</sup> of the following year with respect to the previous calendar year. Such records shall include a sample calculation(s).
  - c. If actual NO<sub>x</sub> and/or VOC emissions, as applicable, from the premises are equal to or greater than 25 tons for such calendar year, the Permittee shall submit to the commissioner, on or before March 1<sup>st</sup> of the following year, an annual emissions summary with respect to the premises for the previous calendar year. Such summary shall be submitted on forms prescribed or provided by the commissioner.
2. A Permittee is exempt from Part VII.B.1 requirements of this permit if, on January 1<sup>st</sup> of the subject year, the premises was operating in accordance with any of the following:
  - a. A valid Title V permit issued pursuant to RCSA section 22a-174-33;
  - b. RCSA section 22a-174-33a;
  - c. RCSA section 22a-174-33b; or
  - d. A valid Approval of Registration issued pursuant to a General Permit to Limit Potential to Emit.

## **PART VIII. 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; Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.