

PERMIT FOR PROCESS EQUIPMENT

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR MANAGEMENT**

1. Legal Firm Name of Permittee: Pratt & Whitney, Division of United Technologies Corporation
2. Address: Aircraft Road, Middletown, CT 06457
3. Equipment Location: Aircraft Road, Middletown, CT 06457
4. Equipment Description (Model, I.D. #): Surface Coating Operation

PERMIT TO:

- Construct Operate Modify

FEDERAL REQUIREMENTS:

- NSPS (40 CFR Part 60) Subpart: _____
- NESHAPS (40 CFR Part 61) Subpart: _____
- MACT (40 CFR Part 63) Subpart: GG

OZONE NON-ATTAINMENT STATUS:

- severe (Major source if VOC or NOx > 25 TPY)
- serious (Major source if VOC or NOx > 50 TPY)

Date Issued	Exp. Date
4/24/2001	
Town No.	Premise No.
104	07
Permit No.	Stack No.
0126	35
Permit Fee:	
\$2000.00	

TYPE OF POLLUTANT FOR WHICH THIS PREMISE IS A MAJOR SOURCE":

EPA SOURCE CLASS:	TSP	SOx	NOx	CO	VOC	PM-10	LEAD	OTHER
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New Source	<input type="checkbox"/>							
Major Mod	<input type="checkbox"/>							
Minor Mod	<input checked="" type="checkbox"/>							

ARTHUR J. ROQUE, JR.
COMMISSIONER, DEPARTMENT OF
ENVIRONMENTAL PROTECTION
OR DESIGNATED AGENT

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PART I. PROCESS DESCRIPTION

A. General Process Description

Pratt & Whitney's Middletown facility includes a surface coating operation where specialty coatings are applied to jet engine aircraft parts. The surface coating operation takes place inside a paint spray booth and includes the following types of coating methods: spray, dip, brush and tube. Only one method of coating is used at any one time. Cleaning of the parts before and after coating is accomplished through hand-wiping. Two electrically heated ovens are used to provide a final cure of the coating material. All exhaust from the coating operation is passed through panel filters mounted integrally to the booth.

B. Equipment Design Specifications

1. Equipment Description: Surface Coating Booth
2. Allowable Coating Methods: spray, dip, brush, and tube
3. Maximum Coating Methods Used at any one time: 1
4. Number of HVLP spray guns: 1
5. Minimum Transfer Efficiency of spray gun: 65%
6. Maximum Application Rate of spray gun: 1.8 gal/hr
7. Number of Electric ovens: 2

C. Control Equipment Specifications

1. Control Equipment: Panel Filters
2. Minimum Control Efficiency (%): 97%

D. Stack Parameters

1. Number of booth exhaust stacks: 1
2. Number of oven exhaust stacks: 2
3. Stack Height, each (ft): 35
4. Exhaust Gas Flow Rate from booth stack (acfm): 18,000
5. Exhaust Gas Flow Rate from oven stacks, each (acfm): 2,600
6. Minimum Distance of Stacks to Property Line (ft): 1,200

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PART II. OPERATING REQUIREMENTS

Notwithstanding the design specifications or description provided in Part I, above, the permittee of the subject source shall comply with the following operating requirements.

A. Operating Parameter Limitations

Equipment

1. Type of Coatings Applied: Specialty coatings as defined by 40 CFR 63, Subpart GG (Attachment A) and Appendix A and B of the EPA Control Techniques Guideline: Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (Attachment B).
2. Maximum VOC Content of Specialty Coatings as Applied (excluding water and exempt VOCs): Not to exceed VOC content limits as defined in section B.3(a)(1) of the EPA Control Techniques Guideline: Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (Attachment B).
3. Maximum Application Rate: 1.8 gal/hr
4. Type of Cleaners Used: All solvent cleaners used shall comply with 40 CFR 63.744 (Attachment A) and section B.3(c) of the EPA Control Techniques Guideline: Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (Attachment B)

Particulate Control

1. Minimum Control Efficiency: 97%

B. O&M Requirements

1. The spray booth, spray guns, and filter media shall comply with any supplied warranties, recommendations and stipulations set by the manufacturer of the equipment.
2. All control equipment specified in this permit shall be properly installed and in good operating condition before the spray booth is operated.

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PART II. OPERATING REQUIREMENTS, cont.

3. Housekeeping operations shall comply with 40 CFR 63.744 (Attachment A) and section B.3(c) of the EPA Control Techniques Guideline: Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (Attachment B).

C. Emission Limits

1. Criteria Pollutants

The Permittee shall meet the emission limits stated herein at all times.

<u>Criteria Pollutants</u>	<u>#/hr</u>	<u>#/month</u>	<u>TPY</u>
PM-10	0.13	--	1.03E-2
VOC	7.17	1,666*	4.14

*premises-wide surface coating limit

Demonstration of compliance with the above emission limits shall be demonstrated by material usage data and Material Safety Data Sheets.

The above statement shall not preclude the Commissioner from requiring other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

2. Hazardous Air Pollutants (HAPs)

Refer to Part III. Monitoring, Record Keeping and Reporting Requirements for MASC compliance.

D. Special Requirements

This booth shall only be used for the application of specialty coatings as defined by 40 CFR 63, Subpart GG (Attachment A) and section B.3(a)(1) of the EPA Control Techniques Guideline: Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (Attachment B). If the booth is to be used for coatings other than those defined above, the

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PART II. OPERATING REQUIREMENTS, cont.

permittee must apply for a modification to this permit and the source may become subject to additional requirements of 40 CFR 63, Subpart GG (Attachment A) and the EPA Control Techniques Guideline: Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (Attachment B).

PART III. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS

A. Material and Usage Records

1. The source shall maintain 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 63.753 (Attachment A) and section B.4 of the EPA Control Techniques Guideline: Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations (Attachment B):
 - a. A current list of coatings in use with category and VOC content less water and less exempt VOC as applied;
 - b. A current list of cleaners in use with VOC content less water and less exempt VOC as applied;
 - c. Solids content as applied;

2. The permittee shall keep the following records hourly, daily and monthly:
 - a. Date of application;
 - b. Method of coating application;
 - c. Name of coating or cleaner used;
 - d. Amount of each coating used;
 - e. Amount of VOC emitted (lb or ton); and,
 - f. Amount of PM-10 emitted (lb or ton).

Additionally, twelve (12) month record of VOC and particulate emissions shall be determined by adding the current month's record to that of the previous eleven (11) months. These calculations shall be made on a monthly basis.

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PART III. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS, cont

3. The permittee shall keep monthly records of VOC emissions from all surface coating operations at the premises.
4. Usage records for this booth along with Material Safety Data Sheets for each coating and diluent shall be maintained on site for a period of no less than five (5) years and submitted to the Bureau upon request. Material Safety Data Sheets or technical data sheets must include the quantity and type of each hazardous air pollutant contained in the coating or diluent.

B. Hazardous Air Pollutants (HAPs) MASC

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 Section 22a-174-29 of the Regulations of Connecticut State Agencies (hereinafter referred to as RCSA) are allowed provided that:

1. the permittee can demonstrate that the HAPs actual stack concentration (ASC) does not exceed the maximum allowable stack concentration (MASC) using the following equation,

$$MASC = 1057 * HL V$$

where

MASC = Maximum Allowable Stack Concentration (ug/m³ or ppmv)

HLV = Hazard Limiting Value (ug/m³ or ppmv)

1057 = A constant based on stack parameters

The MASC is derived using the HAPs corresponding HLV as listed in RCSA Section 22a-174-29 and is based on the stack parameters given in Part I of this permit.

The ASC shall be derived using the HAPs content as applied (lb HAP/gal), the maximum application rate (gal/hr) as a worst case, and any applicable controls. This gives the actual stack emissions in lb/hr which can be converted to a concentration in ug/m³ or ppmv;

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PART III. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS, cont

2. the change does not otherwise constitute a modification, as defined in RCSA Section 22a-174-1;
3. the permittee keeps records of all compounds used, and MSDS's or technical data sheets; and,
4. the permittee submits a report of any changes and a demonstration of compliance with permit limits, within thirty (30) days of such changes, to the Department of Environmental Protection, Bureau of Air Management, Permit Section, 79 Elm Street, Hartford, Connecticut 06106-5127

NOTE: The emissions from any new compounds, for production or trial runs, shall be counted toward any applicable emission limit in this permit.

PART IV. PREMISE REQUIREMENTS

- A. The permittee shall comply with all applicable provisions of 40 CFR 63, Subpart GG (Attachment A) and the EPA Control Techniques Guideline: Control of Volatile Organic Compound Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations.
- B. Maximum VOC emissions from all surface coating operations at the premises shall be limited to 1,666 pounds in any calendar month.
- 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 premise that constitutes a nuisance as set forth in RCSA Section 22a-174-23.
- D. At all times, operations of this facility shall be carried out in a manner so as not to violate or contribute significantly to the violation of any applicable state noise control regulations under RCSA Section 22a-69-1 through 22a-69-7.4, inclusive.

PART V. 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.

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PART V. ADDITIONAL TERMS AND CONDITIONS, cont.

- B. Any representative of the DEP 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 the documents and all attachments and 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, and I understand that any false statement made in this document or its attachments may be punishable as a criminal offense." Any false statement in any information submitted pursuant to this permit may be punishable as a criminal offense in accordance with Connecticut General Statutes §22a-6, under §53a-157 of the Connecticut General Statutes.

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PART V. ADDITIONAL TERMS AND CONDITIONS, cont.

- 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 fifteen 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 Assistant Director; Compliance & Field Operations Division; Bureau of Air Management; Department of Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

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ATTACHMENTS:

Attachment A - 40 CFR 63, Subpart GG - National Emission Standards for
Aerospace Manufacturing and Rework Facilities

Attachment B - Appendix A and Appendix B of the EPA Control Techniques
Guideline: Control of Volatile Organic Compound Emissions from
Coating Operations at Aerospace Manufacturing and Rework
Operations