

**STATE OF CONNECTICUT  
DEPARTMENT OF ENVIRONMENTAL PROTECTION**



PAGES 2 THROUGH 8 ARE HEREBY INCORPORATED BY REFERENCE INTO THIS PERMIT

**ORIGINAL**

TOWN NO. 104	PREMISE NO. 7	PERMIT NO. 0073	STACK NO. 28
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EQUIPMENT CLASSIFICATION		DATE ISSUED	EXPIRATION DATE (NONE UNLESS NOTED)
<input type="checkbox"/> FUEL BURNING	<input type="checkbox"/> INCINERATOR	7/15/94	
<input checked="" type="checkbox"/> PROCESS MFG. OTHER _____			

PERMIT TO :  CONSTRUCT  OPERATE OTHER \_\_\_\_\_

PREMISE TYPE :

<input type="checkbox"/> PREMISE W/ POTENTIAL EMISSIONS $\geq$ 100 TPY WITHOUT PERMIT (i.e., EPA-"MAJOR SOURCE")	<input checked="" type="checkbox"/> PREMISE W/ POTENTIAL EMISSIONS $\geq$ 100 TPY WITH PERMIT (i.e., EPA-"MAJOR SOURCE")	<input type="checkbox"/> PREMISE W/ POTENTIAL EMISSIONS < 100 TPY (i.e., EPA-"MINOR SOURCE")
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TYPE OF POLLUTANT FOR WHICH A PREMISE IS A "MAJOR SOURCE" :

<input type="checkbox"/> SO <sub>2</sub>	<input checked="" type="checkbox"/> SO <sub>2</sub>
<input type="checkbox"/> NO <sub>x</sub>	<input checked="" type="checkbox"/> NO <sub>x</sub>
<input type="checkbox"/> CO	<input checked="" type="checkbox"/> CO
<input type="checkbox"/> TSP	<input checked="" type="checkbox"/> TSP
<input type="checkbox"/> VOC	<input checked="" type="checkbox"/> VOC
<input type="checkbox"/> PM-10	<input type="checkbox"/> PM-10
OTHER _____	OTHER _____

TYPE OF MODIFICATION :  MAJOR MODIFICATION  MINOR MODIFICATION  NEW SITING

TYPE OF SOURCE :

A1 SOURCE (ACTUAL EMISSIONS  $\geq$  100 TPY OR FOR A PREMISE WITH CONTROLS, POTENTIAL EMISSIONS  $\geq$  100 TPY)

A2 SOURCE (ACTUAL EMISSIONS < 100 TPY, AND;  
1) FOR A PREMISE WITHOUT CONTROLS, POTENTIAL EMISSIONS  $\geq$  100 TPY, OR  
2) FOR A PREMISE WITH CONTROLS, MAXIMUM UNCONTROLLED EMISSIONS  $\geq$  100 TPY)

B SOURCE  NSPS SOURCE  NESHAPS SOURCE

EQUIPMENT DESCRIPTION  
BINKS MODEL NPB-12-7-T-LH WATERWASH DESIGN SPRAY BOOTH & EQUIPMENT

LOCATION OF EQUIPMENT (No. & Street, Town, Zip)  
BUILDING 220, AIRCRAFT ROAD, MIDDLETOWN, CONNECTICUT 06457

FIRM NAME  
PRATT & WHITNEY



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EQUIPMENT DESCRIPTION (I.D.): BINKS MODEL NPB-12-7-T-LH WATERWASH DESIGN SPRAY BOOTH, SPRAY GUN(S) & ELECTRICALLY HEATED OVEN

PART A. OPERATING CONDITIONS

Allowable VOC Emission Rates: 10 #/hr, 10 #/day, and 1.83 tons/year

Allowable TSP Emission Rates: 0.59 #/hr, 0.59 #/day, and 0.11 tons/year

NOTE: Permits #104-0072, -0073, and -0074 combined VOC and TSP emissions shall not exceed these allowable emission rates for VOC and TSP.

Particulate Control Equipment: Waterwash

Spray Gun Cleaning Equipment: Enclosed Recirculating Graco Stainless Steel Pro Wash or equivalent

Minimum Stack Height: 39.0 feet above grade

Minimum Distance From Stack To Nearest Property Line: 1600 feet

Exhaust Gas Flow Rate (minimum flow rate at maximum rated capacity): 10,600 acfm

PART B. COATING USAGE CONDITIONS

Usage of a certain coating at this source has the potential to violate the Maximum Allowable Stack Concentration (MASC) for a certain hazardous air pollutant. So that the Actual Stack Concentration (ASC) for this hazardous air pollutant does not exceed the MASC, the following coating is restricted as follows:

PMC 1873 Skybond 703 Polyimide Resin

Allowable range of paint to thinner ratios: 0.5:1 to 1.5:1

Allowable coating usage (gal/hr and gal/day) = (-0.36)X + 1.7, where X = portion of paint in paint to thinner ratio, from 0.5 to 1.5.

RECORDS INDICATING CONTINUAL COMPLIANCE WITH ALL ABOVE CONDITIONS MUST BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE UPON DEPARTMENTAL REQUEST FOR THE DURATION OF THIS PERMIT.

FIRM NAME PRATT & WHITNEY	
LOCATION OF EQUIPMENT (No. & Street, Town, Zip) BUILDING 220, AIRCRAFT ROAD, MIDDLETOWN, CONNECTICUT 06457	
APPLICANT'S SIGNATURE 	COMMISSIONER OR HIS REPRESENTATIVE 

PERMIT IS INVALID UNLESS SIGNED BY APPLICANT, SUCH SIGNATURE CONSTITUTING AGREEMENT TO THE CONDITIONS IN THIS PERMIT.

BUREAU OF AIR MANAGEMENT - PERMITS



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**PART B. COATING USAGE CONDITIONS, continued:**

The use of other coatings other than the above listed one is allowed by this permit, however under no circumstances shall the use of any coating violate any condition of this permit, specifically the allowable emission rates listed in Part A, Table 1 and Part G of this permit.

The coatings shall be mixed as indicated in the Permittee's submitted permit application. The chemical compound concentrations in the coatings shall not exceed those concentrations indicated in each coating's Material Safety Data Sheets (MSDS), or equivalent.

The hourly coating usage limits are not instantaneous rates but rather limits not to be exceeded over any one hour period. These limits are based on the worst case assumption that all painting will take place within the first hour of each shift. Any coating may be used during each shift so long as the emission limits stated in Table 1 are not exceeded.

**PART C. OPERATING CONDITIONS**

This source shall comply with any supplied warranties and with any and all stipulations and recommendations set by the manufacturers of the spray gun(s), spray booth, spray cleaner, and waterwash on the method of operating this equipment.

The waterwash is an integral part of the spray booth and shall be fully operational at all times that the spray equipment is in use.

Handling, storage and disposal of all coatings and solvents shall be carried out in accordance with all applicable DEP regulations and in such a manner as to keep the evaporation of such coatings and solvents into the atmosphere to an absolute minimum.

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PART D. PREMISE CONDITIONS

With the issuance of this permit, premise wide emissions of VOC's from miscellaneous metal parts and products coating operations are limited to 1,666 pounds per calendar month and 10 tons per year. If and when the preceding limits are exceeded, this premise shall become subject to all of the provisions of Section 22a-174-20(s) of the Regulations of Connecticut State Agencies (hereinafter referred to as the Regulations).

To show compliance with the premise conditions, calculations shall be made on a monthly and yearly basis for all premise wide miscellaneous metal parts spray coating operations.

PART E. PERMIT CONDITIONS

Recordkeeping of coatings used is required in order to show compliance with the VOC emission limitations. Proof of compliance with the 10 lb/day emission limit shall also be proof of compliance with the 10 lb/hr emission limit, since the worst case hourly emission rate would be if all pounds of VOC's emitted in one day were emitted in any one hour period.

The combined VOC emissions from the source(s) permitted under Permit #104-0072, -0073, and -0074 shall not exceed the above mentioned VOC emission limitations as well as those limits stated in Part A and Table 1.

PART F. RECORDKEEPING REQUIREMENTS

Records shall be kept on site at all times, shall be made available to this Department upon request and shall contain the following information:

1. Coatings used and amount of consumption for each one, and VOCs emitted on a daily, monthly and yearly basis.

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PART F. RECORDKEEPING REQUIREMENTS, continued:

- Description of each coating used including coating name, density, VOC content, content of each individual hazardous air pollutant, non-volatile content and solids content (by weight and volume).
- Calculations demonstrating compliance with the maximum allowable stack concentrations for each hazardous air pollutant emitted. These calculations should follow the procedures as outline in Part G of this permit.
- For other miscellaneous metal parts spray coating operations conducted on this premise and not specified under this permit, the coatings used and amount of consumption for each one, plus the VOC's emitted on a monthly and yearly basis.

In addition, purchasing records and material safety data sheets for each coating and solvent used shall be kept on site. Annual VOC emissions shall be based on any consecutive 12 month period and shall be determined by adding the current month's VOC emissions to that of the previous 11 months. This calculation shall be made on a monthly basis. Calculations to show compliance with the pound per day limit shall be made on a daily basis. To show compliance with the premise conditions, calculations shall be made on a monthly and yearly basis for all premise wide miscellaneous metal parts spray coating operations.

PART G. HAZARDOUS AIR POLLUTANT MASC COMPLIANCE

Coatings, diluents, or cleaners used by this source now or in the future, either for production or on a trial basis, which contain

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PART G. HAZARDOUS AIR POLLUANT MASC COMPLIANCE, continued

hazardous air pollutants (HAP) that are regulated under Section 22a-174-29 of the Regulations, are allowed provided that:

- a. the source can demonstrate that the hazardous air pollutants emitted from the use of any such coating, diluent, or cleaner do not exceed the maximum allowable stack concentrations (MASCs) using the following equation:

$$MASC = 2788.84 \times HLV;$$

Where MASC = maximum allowable stack concentration (ug/m<sup>3</sup>)  
 HLV = Hazard Limiting Value (ug/m<sup>3</sup>) (8-hour)  
 2788.84 = a constant based on stack parameters

The MASC for each HAP is derived using the HAP's corresponding HLV (8-hour), as listed in Section 22a-174-29 of the Regulations, and on the stack parameters for the spray booth as listed on page 1 of this permit.

The actual stack concentration (ASC) shall be derived using each HAP's content in the coating (as applied lb HAP/gal) and the maximum application rate (gal/hr) as a worst case. This gives an ASC in pph which can be converted to ug/m<sup>3</sup> (ug/m<sup>3</sup> = pph x 453 x 10<sup>6</sup>/acfm/60/0.02832). The ASC shall be equal to or less than the MASC for all HAP's emitted.

- b. the source does not exceed the 10.00 lb/hr limit for total VOC's which is the combined VOC emissions from Permits #104-0072, -0073, and -0074.

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PART G. HAZARDOUS AIR POLLUTANT MASC COMPLIANCE, continued

- c. the change does not otherwise constitute a modification, as defined in Section 22a-174-1 of the Regulations.
- d. the permittee keeps records of all coatings used, and MSDS's or technical data sheets.
- e. 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, 5th Floor, 79 Elm Street, Hartford, Connecticut 06106-5127.

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

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OPERATING MODE ID: PAINT SPRAY BOOTH AND ACCOMPANYING EQUIPMENT

TOWN NO.	PREMISE NO.	PERMIT NO.	STACK NO.
104	7	0073	28

CRITERIA POLLUTANTS	LB/HOUR ***	LB/DAY***	TPY***
TSP *	0.59	0.59	0.11
SO <sub>x</sub> , expressed as SO <sub>2</sub>			
NO <sub>x</sub> , expressed as NO <sub>2</sub>			
HC **	10.00	10.00	1.83
CO			
Pb			
PM-10			
<u>NON-CRITERIA POLLUTANTS</u>			
H <sub>2</sub> SO <sub>4</sub>			

COMMENTS: \*Based on maximum spray gun throughput, highest TSP density, transfer efficiency and coating overspray efficiency.  
 \*\*Based on compiled material usage for coatings.  
 \*\*\*Permits #104-0072, -0073, and -0074 combined emissions for TSP and VOC shall not exceed the listed lb/hr, lb/day, and TPY limits.

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