



STATE OF CONNECTICUT  
DEPARTMENT OF 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:	Electric Boat Corporation
Address:	75 Eastern Point Road, Groton, CT 06340-1047
Equipment Location:	75 Eastern Point Road, Groton, CT
Equipment Description:	Paint Spray Booth

Permit Number:	070-0241
Town/Premises Numbers:	070-005
Original Permit Issue Date:	May 5, 2001
Modification Issue Date:	MAR 06 2007
Expiration Date:	N/A

*for* Anne M. Bin  
Gina McCarthy  
Commissioner

March 6, 2007  
Date

ORIGINAL

**PERMIT FOR PAINT SPRAY BOOTH**

**STATE OF CONNECTICUT, DEPARTMENT OF ENVIRONMENTAL PROTECTION  
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**PART I. PROCESS DESCRIPTION**

**A. General Process Description**

The spray booth operation permitted herein consists of a Global Finishing Solutions Spray Booth, Model # WE-101015.125-S and identified as EMU 26. In addition, the spray booth operation employs two spray guns. The guns currently being used are a conventional Devilbiss MBC-510 spray gun and a conventional EGA 502 Series Shading spray gun. The replacement of either or both spray guns with an equivalent spray gun(s) shall not constitute a modification or revision to this permit.

The spray booth operation in Building 51 is used in the air-dried coating of miscellaneous metal parts used in the production of submarines and submarine components.

**B. Equipment Design Specifications**

1. Number of Spray Guns per Booth: 2
2. Maximum Rated Spray Gun Throughput (gallons per hour): 5.6  
(MBC-510) and 2.8 (EGA 502)
3. Type of Spray Gun: Conventional manually operated

**C. Control Equipment Specifications**

1. Control Equipment: Global Finishing Solutions #WE-101015.125-S Exhaust Chamber (Waterfall Curtain)
2. Minimum Transfer Efficiency (%): 65
3. Minimum Particulate Matter Filter Removal Efficiency (%): 95

**D. Stack Parameters**

1. Maximum Exhaust Temperature (°F): Ambient
2. Maximum Exhaust Flow Rate (acfm): 12,500 (single exhaust)
3. Minimum Distance to Property Line (feet): 250
4. Minimum Stack Height (feet): 27

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Town No: 070

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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

Maximum VOC Content per Gallon of Coating, as Applied (pounds per gallon, ppg): \*

Maximum Hourly Coating Usage, as Applied (gallons/hour, gph) 2.8\*\*

Maximum Annual Coating Usage, as Applied (gallons/year) 1,000

Maximum Hourly Usage of VOC Containing Cleanup Solvent (gph) 0.5

Maximum Annual Weight of VOC in Cleanup Solvent (pounds/year) 700

1. 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.
2. The volumetric limits on coating usage shall be such that the emission limits in Part C. of this subsection are not exceeded.

\* 40 CFR 63, Subpart II, National Emissions Standards for Shipbuilding and Ship Repair (Surface Coating) establishes specific VOC limits by coating category (e.g. antifoulant, high-gloss, military exterior, etc.)

\*\* Lower application rates for specific coatings are required to assure compliance with Section 22a-174-29 of the Regulations of Connecticut State Agencies (RCSA).

##### B. O&M Requirements

The Permittee shall comply with any stipulation and recommendations set by the manufacturer 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).
3. Keep the atomizing air pressure to a minimum level, as recommended by the spray gun manufacturer.

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**PART II. OPERATING REQUIREMENTS, continued**

**C. Emission Limits**

The Permittee shall not exceed the emission limits stated herein at any time.

**1. Criteria Pollutants**

<u>TOTAL EMISSIONS</u>	<u>Pollutant</u>	<u>TPY</u>
	PM	0.14
	VOC (Coating Application)	0.50
	VOC (Cleanup)	0.35
	VOC (Total)	0.85

Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using emission factors from the following sources:

- i. Material Balance.
- ii. Conventional spray gun having an overall transfer efficiency of 65 % and a waterwall having a control efficiency of 95 %.

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)**

(See Part V for requirements.)

**PART III. STACK EMISSION TEST REQUIREMENTS**

Stack emission/performance testing shall be required for the following:

- None at this time
- PM       SOx       NOx       CO       VOC       Pb
- Other (HAPS): \_\_\_\_\_

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**PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS**

**A. Material Usage Records**

1. The Permittee shall keep daily records of all coatings and diluents, such records shall include:
  - i. Date paint used;
  - ii. Description of paint, including name and density (lb/gal);
  - iii. Volatile organic compound content by weight (lb VOC/gal);
  - iv. Water and exempt VOC content by weight;
  - v. Non-volatile content by volume and weight;
  - vi. Volume of paint used; and
  - vii. Volume of diluent used for each paint.
2. The Permittee shall keep records of daily and twelve (12) month average VOC emissions, as well as cumulative year-to-date paint usage and VOC emissions.
3. The twelve (12) month record of VOC emissions shall be determined by adding the current month's record to that of the previous eleven months. The Permittee shall make these calculations on a monthly basis.
4. The Permittee shall maintain an annual record of the type and quantity of any solvent used to clean the guns and booth. In addition, accurate annual records must be kept of the quantity and type of solvents spilled, evaporated, or manifested as waste material.
5. Usage records of this booth and material safety data sheets for each paint and solvent used shall be maintained on site for a period no less than two (2) years and submitted to the DEP Bureau of Air Management upon request. Material safety data sheets or technical data sheets for each paint and solvent used shall be maintained. Such material safety data sheets or technical data sheets must include the quantity and type of each hazardous air pollutant contained in the paint or solvent.

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**PART IV. MONITORING, RECORD KEEPING AND REPORTING REQUIREMENTS, cont.**

6. Such daily records shall clearly display, at a minimum, compliance with all materials usage and emissions limitations set forth in this permit.
7. All records, noted above, shall be retained at the source for a minimum of two (2) years.

**B. Reports of Exceedances**

Reports of any exceedances of the material usage or emission limitations, set forth in this permit, shall be submitted to the Department in writing within 30 days of the date of such exceedance. Such report shall at a minimum, include a description of the nature of the exceedance, the duration and magnitude of the exceedance, the steps taken to reestablish compliance and the success of such steps, and the steps taken to assure that compliance is maintained in the future.

**C. Continuous Emission Monitoring**

None at this time.

**PART V. HAZARDOUS AIR POLLUTANT (HAPs) MASC COMPLIANCE**

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 Section 22a-174-29 are allowed provided that:

- A. the Permittee can demonstrate that the HAPs actual stack concentration (ASC) does not exceed the maximum allowable stack concentration (MASC) using Equation 1,

$$\text{MASC} = 138.4 \times \text{HLV} \times (5 - 4((T - 0.5)/7.5))^* \quad (\text{Equation 1})$$

where

- MASC = Maximum Allowable Stack Concentration ( $\mu\text{g}/\text{m}^3$  or ppmv)
- HLV = Hazard Limiting Value ( $\mu\text{g}/\text{m}^3$  or ppmv)
- T = the cumulative hours of operation in an 8 hour period, not to exceed 8 hours

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**PART V. HAZARDOUS AIR POLLUTANT (HAPs) MASC COMPLIANCE, continued**

\*This MASC is derived using the HAPs corresponding HLV as listed in RCSA Section 22a-174-29 and is based on a stack height of 27 feet, a property line distance of 250 feet and a flow of 12,500 acfm.

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/m<sup>3</sup> or ppmv;

- B. The change does not otherwise constitute a modification, as defined in RCSA Section 22a-174-1;
- C. The Permittee keeps records of all compounds used, and MSDS's or technical data sheets; and,
- D. The Permittee submits a report of any changes and a demonstration of compliance with permit limits, within 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 VI. PREMISES 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.
- 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.

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**PART VI. PREMISES REQUIREMENTS, continued**

- C. 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.
- D. The Permittee shall operate in compliance with fugitive dust regulations in RCSA Section 22a-174-18.
- E. 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.

**PART VII. SPECIAL REQUIREMENTS**

- A. The Permittee shall not apply the Teflon Green Enamel 851-204 coating (MSDS 1668) at a rate in excess of 2.4 gallons per any 8-hour period.
- B. 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.

**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 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.

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**PART VIII. ADDITIONAL TERMS AND CONDITIONS, continued**

- 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.

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## PART VIII. ADDITIONAL TERMS AND CONDITIONS, continued

- 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; 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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