

FACT SHEET

NESHAP FOR SHIPBUILDING AND SHIP REPAIR FACILITIES
(SURFACE COATING)

BACKGROUND

- ! On July 16, 1992 (57 FR 31576), pursuant to Section 112(c) of the Clean Air Act, "Shipbuilding and Ship Repair (Surface Coating)" was listed as a source category to be regulated under Section 112.
- ! The affected source is the aggregate of all operations/activities at a major source shipbuilding or ship repair facility.

TABLE 1. APPLICABILITY OF THE PROPOSED RULE

Affected Sources	Emission Points	Applicable Sections of Subpart II
<p>The proposed rule would apply to facilities engaged in shipbuilding and ship repair activities that are major sources as defined in 40 CFR part 63. Applicable SIC code 3731.</p>	<p>Painting, cleaning activities, and blasting operations</p>	<p>63.781</p>
<p>Sources which emit or have potential to emit considering controls, in the aggregate, 9.1 megagrams per year or more of any single HAP or 22.7 Mg/yr or more of any combination of HAP.</p>	<p>All emission locations at the source.</p>	<p>63.781(a)</p>

- ! The rule would limit the volatile organic HAP (VOHAP) content of several categories of marine coatings and specify work practices that minimize evaporative emissions from the handling, transfer, and storage of dilution solvent and paint wastes.

- ! Compliance with the HAP rule would be determined using the VOC content of the coating as a surrogate because VOHAP's are a subset of VOC's (compliance options 1-4) or using an Administrator approved test method to measure VOHAP content (compliance option 5).
- ! There are from 437 (based on 1992 Marine Log listing) to 600 (estimated by the 1987 census of Manufacturers) shipyards in the United States. An estimated 25 of these shipyards are major sources of HAP emissions.
- ! No new major source shipyards are expected to be built within the next 5 years.

RECOMMENDED STANDARDS

- ! Basis: For coating operations at new and existing affected sources, the proposed NESHAP is based on the use of lower-VOC coatings that meet the 1992 California VOC limits for marine coatings. For handling, transfer, and storage of dilution solvent and paint wastes at new and existing affected sources, the standard would require certain work practice measures to minimize evaporative emissions.

All new and existing major source shipyards would be required to use coatings that meet the limits presented in Table 2.

TABLE 2. PROPOSED VOLATILE ORGANIC HAP (VOHAP) CONTENT LIMITS FOR MARINE COATINGS

Coating category	VOHAP limits ^{a,d}		VOHAP _{alt} limits ^{c,d}	
	Grams per liter, g/L	Pounds per gallon, lb/gal ^b	Grams per liter, g/L	Pounds per gallon, lb/gal ^b
General use	340	2.83	571	4.76
Specialty	--	--	--	--
Air flask	340	2.83	571	4.76
Antenna	530	4.42	1,439	12.00
Antifoulant	400	3.33	765	6.38
Heat resistant	420	3.50	841	7.00
High gloss	420	3.50	841	7.00
High temperature	500	4.17	1,237	10.31
Inorganic zinc high-build primer	340	2.83	571	4.76
Military exterior	340	2.83	571	4.76
Mist	610	5.08	2,235	18.63
Navigational aids	550	4.58	1,597	13.31
Nonskid	340	2.83	571	4.76
Nuclear	420	3.50	841	7.00
Organic zinc	360	3.00	630	5.25
Pre-treatment wash primer	780	6.50	11,095	92.46
Repair and maintenance of thermoplastic coating of commercial vessels	550	4.58	1,597	13.31
Rubber camouflage	340	2.83	571	4.76
Sealant coat for thermal spray aluminum	610	5.08	2,235	18.63
Special marking	490	4.08	1,178	9.82
Specialty interior	340	2.83	571	4.76
Tack coat	610	5.08	2,235	18.63
Undersea weapons systems	340	2.83	571	4.76

! All new and existing major source shipyards would be required to handle and transfer dilution solvent and paint wastes in a manner that minimizes spills. In addition, containers of dilution solvent or paint wastes that hold any organic HAP must be free of cracks, holes and other defects and must be closed unless materials are being added or removed from them.

RECOMMENDED COMPLIANCE PROCEDURES

! Affected sources would choose from the following methods to determine compliance with the coating limits:

1. Test or certify the VOC content, as measured by the Agency's Method 24, of each container of coating, as applied, is less than or equal to the applicable limit.
2. No dilution solvent added: Certify that the VOC content, by manufacturer's lot, of each container of coating, as applied, is the same as the VOC content of the complying coating, as supplied.
3. Dilution solvent added -- coating-by-coating compliance: Compare the actual volume of dilution solvent used to the maximum allowable volume on a coating-by-coating basis over each calendar month.
4. Dilution solvent added -- group compliance: Compare the actual volume of given dilution solvent used for all

coatings to which that solvent is added to the maximum allowable volume which could be added without violating the applicable average limit (based on a Method 24 analysis of the as-supplied coating), over each calendar month.

5. Certify that the VOHAP content, as measured by an Administrator approved test method, of each container of coating, as applied, is less than or equal to the applicable VOHAP_{alt} limit.

! Compliance with the handling, transfer, and storage standard would be evaluated against the proposed standard (requiring certification documentation) and the source-specific work practices proposed by the source and approved by the Administrator.

RECOMMENDED NOTIFICATION/RECORDKEEPING/REPORTING REQUIREMENTS

! Initial notification is required by the part 63 General Provisions. In addition to the information required in the General Provisions, sources would be required to submit for the Administrator's approval the compliance and recordkeeping procedures they intend to use for the coating operations and the work practice measures they intend to implement to minimize evaporative emissions from the handling, transfer, and storage of coatings, dilution solvent and paint wastes.

! Compliance status notifications are required by the General Provisions. In addition to the information required in the General Provisions, sources would be required to include their monthly compliance demonstrations and associated records in these notifications. Sources would be required to submit these notifications on a quarterly basis the first year. If there are no exceedances within the first year, sources may request to go to semiannual notifications.

! Sources would be required to maintain for 5 years all records necessary to demonstrate compliance with the standards. Records would include any Method 24 tests, VOC content certifications, VOHAP tests, VOHAP content certifications, calculations of allowable dilution solvent usage, and actual paint and dilution solvent usage by month.

IMPACTS (nationwide incremental impacts)

! Organic HAP emissions: reduction in HAP emissions of 24 percent or 272 Megagrams per year (300 tons per year).

! Energy/water/solid waste/noise: no negative impacts.

! Costs: increase in annualized cost of approximately \$1.7 million per year; insignificant increase in capital costs.

! Economic: All of the 25 facilities are expected to experience a maximum price increase between 0.0 and 0.3 percent which is less than the screening value of 1 percent. Implementation of the NESHAP is not expected to significantly impact the major-source facilities.

CONTROL TECHNIQUES GUIDELINES (CTG)

! Section 183(b)(4) of the Clean Air Act requires a CTG recommending controls for volatile organic compound (VOC) and particulate emissions from shipbuilding and ship repair facilities. The preamble to the proposed NESHAP explains that the controls required for the NESHAP are also applicable to VOC and constitute draft recommended best available control measures (BACM).

Although two particulate control systems that appear suitable for shipyards are in development and may be available in the future, none are sufficiently demonstrated at this time to recommend as BACM. This information is further discussed in an alternative control techniques (ACT) document published for this industry in February 1994.

ISSUE

. We have requested information, from nine shipyards, on solvent usage for thinning of coatings in Northern climates.