

COVERED SOURCE PERMIT REVIEW - CSP No. 0105a-01-C

Renewal Application 0105-08

Facility Title: Naval Station (NAVSTA) Pearl Harbor in the Pearl Harbor Naval Complex

UTM: 609603 m East, 2361605 m North

Located at Pearl Harbor, Oahu

Applicant: U.S. Navy, Navy Region Hawaii, Naval Station Pearl Harbor

Responsible Official: Capt. Richard D. Roth, Commanding Officer
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Commander, Navy Region Hawaii
Regional Environmental Department
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SICC: 3730, Ship and Boat Building and Repair

Background:

The primary mission of NAVSTA Pearl Harbor in the PHNC is to provide logistic support to the Surface fleet. This mission requires the provision and maintenance of infrastructure such as roads, personnel quarters, administrative spaces, recreational facilities, etc. Although NAVSTA's mission is primarily administrative and facility-oriented, there are a few small-scale industrial operations. These include activities such as woodworking, grinding, welding, solvent parts washing, abrasive blasting, machine tooling, and coating operations. Numerous boilers, emergency generators, and other small, fuel fired equipment are located throughout NAVSTA Pearl Harbor in the PHNC. These equipment service the facility maintenance portion of NAVSTAs mission and not the ship building and repair responsibilities. As such, these equipment are not considered in this permit.

The Pearl Harbor Naval Complex (PHNC) is a major source of hazardous air pollutant emissions (HAPs). NAVSTA is a major source of VOHAPs and is thus subject to the ship building and repair NESHAP.

Air Pollution Controls:

None

Applicable Requirements:

Hawaii Administrative Rules (HAR)

- Chapter 11-59 Ambient Air Quality Standards
- Chapter 11-60.1 Air Pollution Control
 - Subchapter 1 General Requirements
 - Subchapter 2 General Prohibitions
 - 11-60.1-31 Applicability
 - Subchapter 5, Covered Sources
 - Subchapter 6, Fees for Covered Sources, Noncovered Sources, and Agricultural Burning
 - 11-60.1-111 Definitions
 - 11-60.1-112 General Fee Provisions for Covered Sources
 - 11-60.1-113 Application Fees for Covered Sources
 - 11-60.1-114 Annual Fees for Covered Sources
 - 11-60.1-115 Basis of Annual Fees for Covered Sources
 - Subchapter 9, Hazardous Air Pollutant Sources
 - 11-60.1-174 Maximum Achievable Control Technology Standards

Federal Regulations

NESHAP (National Emission Standards for Hazardous Air Pollutants):

40 CFR Part 63

Subpart A - General Provisions

Subpart II - NESHAP for Shipbuilding and Ship Repair Operations

Non-Applicable Requirements:

BACT (Best Available Control Technology):

A Best Available Control Technology (BACT) analysis is required for new or modified emission units if the net increase in pollutant emissions exceeds significant levels as defined in HAR §11-60.1-1. This is

a renewal for an existing source with no proposed modifications. Therefore, a BACT analysis is not required.

CAM (Compliance Assurance Monitoring):

The purpose of Compliance Assurance Monitoring (CAM) is to provide a reasonable assurance that compliance is being achieved with large emissions units that rely on air pollution control device equipment to meet an emissions limit or standard. Pursuant to 40 Code of Federal Regulations, Part 64, for CAM to be applicable, the emissions unit must: (1) be located at a major source; (2) be subject to an emissions limit or standard; (3) use a control device to achieve compliance; (4) have potential pre-control emissions that are 100% of the major source level; and (5) not otherwise be exempt from CAM. CAM is not applicable because the facility does not utilize a control device to control emissions.

CERR (Consolidated Emission Reporting Rule):

40 CFR part 51, Subpart A – Emission Inventory Reporting Requirements determines applicability based on the emissions of each criteria pollutant, PM_{2.5}, PM_{2.5} precursors, and lead from any individual emission point within a facility. Emissions from each point source within a facility must be reported if the emission levels from each point source exceed the trigger levels defined in Appendix A of 40 CFR Part 51. The VOC and VOHAP emissions are from area sources within this facility. As such, CERR does not apply.

NSPS (Standards of Performance for New Stationary Sources):

As of this date, there are no NSPS performance standards for this source category.

PSD (Prevention of Significant Deterioration):

PSD is not applicable to this facility because there are no new major sources and no new major modifications under consideration.

Synthetic minor:

A synthetic minor is a facility that without limiting conditions, physical or operational, emits above the major triggering levels as defined by HAR 11-60.1-1 for either criteria pollutant(s) or hazardous air pollutant(s). This facility is a major source for HAPs and thus, not a synthetic minor.

Insignificant Activities/Exemptions:

The boilers, emergency generators, and other fuel fired equipment are not used to support the ship building and repair activities. As such, those items are not listed as insignificant activities under this

permit.

Alternate Operating Scenarios:

None proposed

Project Emissions:

VOC and VOHAP are the only emissions from the shipbuilding and repair operations at NAVSTA. VOC emissions were estimated by multiplying a higher than average annual coating usage by the average density of the coatings. This is extremely conservative as it assumes all constituents of the coating mixture are VOCs and it double counts the VOHAPs as VOCs.

VOHAPs were estimated by multiplying the same higher than average annual coating using by the VOHAP limit of 340 grams per liter for general use coatings. The VOHAP limit of 340 g/l was used because over 90 percent of the coatings used by NAVSTA have a 340 g/l limit.

Based on annual emissions of the past two years, NAVSTA uses approximately 11,000 gallons of coating per year. For the emissions estimates, 18,000 gallons of coating per year were used. VOCs were estimated at 90 tons per year and VOHAPs were estimated at 25.6 tons per year.

$$18,000 \text{ [gal/yr]} * 10 \text{ [lbs/gal]} / 2,000 \text{ [lb/ton]} = 90 \text{ tons per year VOC}$$

$$18,000 \text{ [gal/yr]} * 340 \text{ [g/l]} / 0.264 \text{ [gal/l]} / 453.6 \text{ [g/lb]} / 2,000 \text{ [lb/ton]} = 25.6 \text{ tons per year VOHAP}$$

Air Quality Assessment:

A modeling analysis is not required because the emissions from the shipbuilding activities are considered area sources.

Conclusion and Recommendation:

The applicant has demonstrated compliance with the existing permit conditions and terms. Since no modifications were proposed, the facility should continue to remain in compliance with the renewed permit conditions and terms.

The issuance of a permit is recommended based on the information submitted by the applicant in the renewal application and the follow-up documents.