Administrative Amendment – July 13, 2016

Statement of Basis

Puget Sound Naval Shipyard

Aerial view: Puget Sound Naval Shipyard and Naval Station Bremerton (NSB).
Together these are the Bremerton Naval Commands, or BNC.

Purpose of this Statement of Basis

This document summarizes the legal and factual basis for the proposed permit conditions in the Puget Sound Naval Shipyard (PSNS) air operating permit to be issued under the authority of the Washington Clean Air Act, Chapter 70.94 Revised Code of Washington (RCW), Chapter 173-401 of the Washington Administrative Code (WAC), and the Puget Sound Clean Air Agency (previously known as Puget Sound Air Pollution Control Agency (PSAPCA)) Regulation I, Article 7. Unlike the permit, this document is not a legally enforceable document. It includes references to the applicable statutory or regulatory provisions that relate to Puget Sound Naval Shipyard's air emissions, and provides a description of Puget Sound Naval Shipyard's activities, including a short compliance history.

Source Description

Service – National Security - NAICS 92811 (formerly SIC 9771)

The Puget Sound Naval Shipyard (Shipyard) and Naval Station Bremerton (NSB) are two Navy commands located adjacent to each other in Bremerton, Washington. Collectively, the Shipyard

and NSB are referred to as the Bremerton Naval Commands (BNC). A separate Title V permit will be issued for each command since two different commanding officer's control operations at each base. This permit is issued to Puget Sound Naval Shipyard.

The Puget Sound Naval Shipyard is a large industrial facility that has been in continuous operation since its founding in 1891. In 1998, in keeping with the Navy's efforts to improve sailor quality of life, a commanding officer was named to the newly established Naval Station Bremerton so that undivided attention could be given to the homeport and housing functions previously managed by the Shipyard. The Bremerton Naval Commands have a combined military and civilian population of approximately 15,500. The BNC are the Northwest's most populous naval shore activities and together one of Washington State's largest industrial installations in terms of both facility investments and in the number of employees. Additional employment is provided due to the presence of contractors at the BNC.

The Puget Sound Naval Shipyard (PSNS) is comprised of 179 acres of property bordered on the south by Sinclair Inlet, on the west by Naval Station Bremerton, and on the north and east perimeters by the City of Bremerton. PSNS is the largest shipyard on the West Coast and home to the Navy's largest dry dock. Currently, the Shipyard workforce consists of approximately 8,000 civil service employees, hundreds of Navy service members, and a large transient contingency of private contractors to augment manpower for periods of peak workload. The Shipyard provides overhaul, repair and recycling services to the entire fleet, including both submarines and surface ships. Primary emission sources at the Shipyard include those associated with metal plating, cutting, preparation, and painting. Additionally, the Shipyard maintains an industrial wastewater pre-treatment plant, many boilers and internal combustion sources.

Responsible Individuals

Captain Clarke Orzalli, U.S. Navy, is the Commander, Puget Sound Naval Shipyard, Code 100. Captain Orzalli is listed as the responsible individual meeting the requirements of WAC 173-401-200 (27)(c). The contact phone numbers listed in the permit will allow the reader with questions to contact the department responsible for the original application for the Puget Sound Naval Shipyard (PSNS). Regulators will be able to arrange direct contact with the responsible individual through these access numbers. The term “PSNS” is used throughout the permit.

Pollutants Emitted to Air

The primary sources of air emissions are the industrial shore based processes involved in the repair, overhaul, refurbishing and maintenance of Navy ships. All significant emission units in the permit are located within the industrial area at the waterfront. These activities include cutting, welding, blasting, degreasing, cleaning, and coating of metal parts either through plating or painting. They also include miscellaneous boilers throughout the facility used for maintenance/services and heating, and numerous mobile internal combustion engines. An additional activity that used to be a large part of the work accomplished at the facility is the demilitarization and recycling of decommissioned submarines. Currently this activity is operating at 1/3 of its peak level of the mid 1990’s. Taking apart a submarine for recycling first requires the removal of all environmental contaminants such as lead, PCBs and asbestos, using hand removal methods and steel or plastic media. Then the hull is cut into manageable sizes, and

removed from the dry docks. Then further cutting takes place in an enclosed building with emission controls. Permit requirement. Any nuclear reactors are defueled, sealed, and shipped by barge to Hanford, WA for burial. PSNS is in the Title V Operating Permit program because they consistently emit more than 100 tons of VOC per year and more than 25 tons of HAP per year.

Review of the Puget Sound Naval Shipyard Permit Application

The Puget Sound Clean Air Agency received the original air operating permit application on June 7, 1995. Bremerton Naval Commands submitted revisions and addenda to the original application that were received by the Puget Sound Clean Air Agency on August 1, 1995 and September 1, 1995. The Puget Sound Clean Air Agency acknowledged that the application was complete in a September 1, 1995 letter to the Puget Sound Naval Shipyard. Later, the Navy split the Shipyard into two separate bases. The Navy then elected to split the Title V Permit Application No. 14082 into two new applications. The new application for PSNS, No. 21177, was received on December 3, 2001. This new application was determined to be complete on March 14, 2002. The Navy then reassigned or eliminated some ship building and repair activities previously performed at PSNS. On May 15, 2002, an addendum to the Operating Permit application was received, that reflected the reduced activities taking place at this facility. The addendum was accepted and determined to be complete on June 3, 2002.

Compliance History

During the past five years, the Puget Sound Clean Air Agency conducted 15 compliance inspections of the Puget Sound Naval Shipyard in Bremerton, WA. Inspection dates were: January 16, 2002, August 14, 2001; July 13, 2002; July 13, 2000; May 19, 2000; April 26, 2000; March 23, 1999; September 18, 1998; September 9, 1998; August 28, 1998; July 7, 1998; May 29, 1998; April 29, 1998; March 30, 1998 and March 25, 1997.

The Puget Sound Clean Air Agency has taken the following enforcement actions against Puget Sound Naval Shipyard during the last five years:

September 22, 1998: Notice of Violation No. 36040 was issued in response to a PSNS Semi-Annual Marine Coating Usage and Compliance Status Report. The NOV cites Section 2.02 and 40 CFR Part 63.783 regarding three incidences of the use of non-compliant paints. On February 25, 1999, the Clean Air Agency issued a Notice and Order of Civil Penalty No. 8969. PSNS filed an appeal with the Pollution Control Hearings Board stating that the paint in question was compliant. On April 5, 1999, the Clean Air Agency issued a Notice and Order of Cancellation of Civil Penalty and Rescission of Notice of Violation. No further action was taken. The case was closed.

Each year, the Puget Sound Clean Air Agency has received the required emission statements. The Puget Sound Naval Shipyard currently also reports certification of compliance with certain NESHAP requirements semiannually to EPA Region 10 and the Puget Sound Clean Air Agency.

There are currently no outstanding enforcement actions.

Emission Inventory

See Attachment A.

Applicable Requirements

Applicable requirements are listed in several sections of this operating permit as outlined below. The permit lists only the requirements that the Puget Sound Clean Air Agency has determined to be within the scope of the definition of "applicable requirements" under the operating permit program. PSNS is legally responsible for complying with all applicable requirements of the operating permit as well as other requirements that do not fit the definition of "applicable requirements" found in Chapter 173-401 Washington Administrative Code (WAC). Some of the applicable requirements contain terms or monitoring, maintenance and recordkeeping that require detailed explanation in this statement of basis. The specific conditions are listed below, along with any necessary explanations in monitoring, maintenance, and recordkeeping requirements.

PSNS is subject to all the requirements listed in Section I of the permit. Section I.A contains the requirements that are applicable facility-wide and Section I.B contains requirements applicable only to specific emission units. The requirements in Section I.B only apply to the specific emission units cited; however, the requirements in Section I.A also apply to the specific emission units or activities described in Section I.B. If the monitoring, maintenance, and recordkeeping method for any requirement in Section I.A is more extensive for specific emission units, that requirement is repeated in Section I.B with the additional monitoring, maintenance and recordkeeping requirements.

The tables list the citation for the "applicable requirement" in the second column. Either the second or the third column (Date) contains the adoption or effective date of the requirement. In some cases, the effective dates of the Federally Enforceable Requirement and the State Only Requirement are different because only rules approved by EPA through Sections 110, 111, and 112 of the federal Clean Air Act are federally enforceable and either the state has not submitted the regulation to the EPA or the EPA has not approved it.

The first column is used as an identifier for the requirement, and the Requirement Paraphrase column paraphrases the requirement. The first and Requirement Paraphrase columns are for information only and are not enforceable conditions of this permit. The actual enforceable requirement is embodied in the requirement cited in the second column and the effective date.

The Monitoring, Maintenance & Recordkeeping Method column identifies the methods described in Section II of the permit. Following these methods is an enforceable requirement of this permit. Where used Emission Standard Period column identifies the averaging time for the reference test method, and the Reference Test Method column identifies the reference method associated with an applicable emission limit that is to be used if and when a source test is required. In some cases where the applicable requirement does not cite a test method, one has been added.

In the event of conflict or omission between the information in the actual statute or regulation cited in the second column and any information contained in any other column, the requirements and language of the actual statute or regulation cited shall govern. For more information regarding any of the requirements cited in the second and third columns, refer to the actual requirements cited.

Some of those requirements are further explained in detail below.

Section I. A. (Facility-Wide) Applicable Requirements

Requirements I.A.1

Both WAC 173-400-040(1) and Puget Sound Clean Air Agency Regulation I, Section 9.03 standards are 20% opacity and apply to all stationary sources.

The monitoring method is based on quarterly visual inspections of all emission points at PSNS, with the source taking corrective action within 24 hours or using the reference test method, Ecology Method 9A, to determine opacity if any visible emissions are noted. The Puget Sound Clean Air Agency has determined that the monitoring should be quarterly for the reasons listed below. These factors are consistent with EPA's April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*.

1) Initial compliance. The Puget Sound Clean Air Agency has not observed visible emissions from these activities at or above these levels during any inspection.

2) Margin of compliance. The remaining stationary emission units at PSNS are unlikely to generate visible emissions except under the most unusual circumstances. In addition, the Puget Sound Clean Air Agency has inspected this facility at least fifteen times since 1995 and has not identified opacity issues with the stationary equipment. We have seen visible emissions down in the dry docks during the nuclear vessel recycling operations, sometimes a small amount of particulate is able to leave the docks, but our observations of this activity has never approached 20% opacity and is less likely in the future. This is because the numbers of nuclear vessels available for recycling has decreased to the point that before this permit expires recycling will be reduced to one vessel per year instead of one a month as was the case during the mid-1990's. Therefore, the margin of compliance with the 20% opacity standard for the stationary equipment is high, and the Puget Sound Clean Air Agency has determined that quarterly monitoring is adequate except as provided for under specific emission unit monitoring requirements. Recording of visible emissions is not necessarily a deviation of the opacity requirements. However, failure to take timely corrective action, as defined by the monitoring method, is a deviation of the specific permit term. Taking corrective action does not relieve PSNS from the obligation to comply with the opacity requirement itself.

3) Variability of process and emissions. Annual emissions from the facility stationary sources are relatively constant on an annual and daily basis due to the Navy's overhaul planning to insure that the minimum required vessels are always available to go to sea. In the event of a military conflict, it is possible that emissions would drop until the crises was over and then

there would be a period of catch up. Such catch up would occur slowly over a two year period.

4) Environmental impacts of problems. Observed opacity is generally related to emissions of particulate matter or finely divided liquid droplets. The stationary emission units at PSNS typically do not generate visible emissions. Experience with the submarine recycling activities has not resulted in any observed opacity violations in the last five years.

5) Technical considerations. Catastrophic failure of a building's heating unit or a portable boiler is a likely cause of an opacity standard deviation at PSNS. However, these units are fired in accordance with an acceptable O&M Plan, thereby minimizing the probability of an opacity standard violation.

Requirement I.A.2 and I.A.3

Puget Sound Clean Air Agency Regulation I, Section 9.09 limits particulate emissions to 0.05 grain per dry standard cubic foot (gr/dscf) from equipment used in a manufacturing process. Puget Sound Clean Air Agency Regulation I, Section 9.09 also limits particulate emissions from fuel burning equipment using a fuel other than wood to 0.05 grain per dry standard cubic foot (gr/dscf) corrected to 7% O_2. WAC 173-400-060 limits particulate emissions to 0.1 gr/dscf from general process units (i.e., units using a procedure or a combination of procedures for the purpose of causing a change in material by either chemical or physical means, excluding combustion). WAC 173-400-050(1) limits particulate emissions to 0.1 gr/dscf corrected to 7% O_2 from combustion and incineration units (i.e., units using combustion for waste disposal, steam production, chemical recovery or other process requirements; but excluding open burning).

The monitoring method is based on quarterly visual inspections of all emission points at PSNS, with the source taking corrective action or using the reference test method, Puget Sound Clean Air Method 5, to determine particulate matter emission concentration if any visible emissions are noted. Recording of visible emissions is not necessarily a violation of the grain-loading standard, because the threshold for visible emissions occurs at a grain loading of less than 0.05 gr/dscf. However, failure to take timely corrective action, as defined by the monitoring method, is a deviation of the specific permit term. Taking corrective action does not relieve PSNS from the obligation to comply with the particulate standard itself.

The Puget Sound Clean Air Agency has determined that the monitoring should be quarterly for the same reasons listed for Requirements I.A.1, since particulate emissions from these units are directly related to opacity emissions.

Requirements I.A.4

Both Puget Sound Clean Air Agency Regulation I, Section 9.07 and WAC 173-400-040 (6) are equivalent requirements (SO_2 emissions not to exceed 1000 ppm), except for the second paragraph of the WAC 173-400-040(6) which is not in the Puget Sound Clean Air Agency regulation. That paragraph, which is not federally enforceable, allows for exceptions to this requirement if the source can demonstrate that there is no feasible method of reducing the SO_2 concentrations to 1000 ppm. Since the Puget Sound Clean Air Agency rules do not allow the exception, the second paragraph does not apply to the PSNS.

The boilers burn only natural gas and distillate or very low sulfur oil. PSNS combusts only natural gas in combustion units throughout the rest of the facility, and is incapable of violating the SO2 limit while complying with the other requirements in the permit. The following calculations show that it is mathematically impossible for a unit to emit 1,000 ppm sulfur dioxide while burning natural gas or very low sulfur oil. Therefore, no additional monitoring, other than the fuel sulfur-content monitoring procedure in Section II.A.2.e, is required.

Natural gas:

Natural gas means a mixture of gaseous hydrocarbons, with at least 80 percent methane (by volume), and of pipeline quality, such as the gas sold or distributed by any utility company regulated by the Washington Utilities and Transportation Commission. Natural gas may also be referred to as "pipeline quality natural gas." PSNS receives the same natural gas as all of the other natural gas consumers, private and industrial, in the Northwest. According to Section 1.4-3 of AP-42, natural gas contains approximately 2000 grains of sulfur per million cubic feet, which is equivalent to approximately 3.4 parts of sulfur per million cubic feet of natural gas, as shown in the following calculation:

$$\frac{2{,}000\,gr\,S}{1{,}000{,}000\,ft^3\,nat.gas}\times\frac{1lb}{7000\,gr}\times\frac{385\frac{ft^3}{mole\,S}}{32\frac{lb}{mole\,S}}=3.44\times10^{-6}\,\frac{ft^3\,S}{ft^3\,nat.gas}\equiv3.44\ ppmdv\,S$$

According to *Perry's Chemical Engineer's Handbook*, each cubic foot of natural gas requires approximately 10 cubic feet of air for combustion, yielding approximately 11 cubic feet of combustion exhaust gases, consisting mostly of nitrogen, water vapor, and carbon dioxide. The sulfur in the natural gas will almost all be converted to sulfur dioxide, with each cubic foot of sulfur producing the same volume of sulfur dioxide. Since each cubic foot of natural gas contains 3.44×10^{-6} cubic foot of sulfur, each cubic foot of stack exhaust will contain approximately:

$$3.44\times10^{-6}\,\frac{ft^3\,S}{ft^3\,nat.gas}\times\frac{1\,ft^3\,SO_2}{1\,ft^3\,S}\times\frac{1\,ft^3\,nat.gas}{11\,ft^3\,stack\,exhaust}=3.13\times10^{-7}\,\frac{ft^3\,SO_2}{ft^3\,stack\,exhaust}$$

This is equivalent to 0.31 ppmdv SO_2. Note that this estimated value is less than one-tenth of one percent of the 1,000 ppm SO_2 standard. Therefore, it is reasonable to assume that combustion units that are fired on natural gas cannot exceed the 1,000 ppm SO_2 limits in Puget Sound Clean Air Agency Regulation I, Section 9.07 and WAC 173-400-040(6).

Oil, "very low sulfur" and "distillate":

PSNS burns the same "Very low sulfur oil" and distillate oil supplied to Naval Station Bremerton. While the new source performance standards of 40 CFR part 60 do not apply to PSNS several definitions from Subpart Dc are in common use in the oil supply industry and are used below. For PSNS, its monitoring method is to ensure that the fuel suppliers provide certification that the sulfur content of all delivered fuel is no more than 0.5% by weight when averaged over any calendar month.

"Very low sulfur oil" is defined in NSPS Subpart Db as "an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without sulfur dioxide emission control, has a sulfur dioxide emission rate equal to or less than 215 ng/J (0.5 lb/million Btu) heat input."

"Distillate oil" is defined in NSPS Subpart Db as "fuel oils that contain 0.05% weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2[1], as defined by the American Society of Testing and Materials in ASTM D396-78, Standard Specifications for Fuel Oils, which has been incorporated by reference into 40 CFR 60.17."

The conversion factors given in 40 CFR 60 Appendix A, Reference Method 19 to estimate the SO_2 concentration in the main stack in ppm may be used if all the boilers were burning 0.5% sulfur oil and emitting 0.5 lb/MMBtu SO_2.

According to Table 19.1, burning a million Btu of oil produces 9,190 dry standard cubic feet of stack gas. One part per million SO_2 is equivalent to 1.66×10^{-7} ppmdv.

$$0.5\,lb\,SO_2 / MMBtu \times \frac{1\,MMBtu}{9{,}190\,dscf} \times \frac{1\,ppdv}{1.660\times10^{-7}} = 327.7\ ppm\,SO_2$$

Therefore, it is reasonable to assume that the boiler main stack, which is the only significant source of SO_2 on PSNS, will not emit SO_2 in excess of 1,000 ppmdv if the boilers burn only natural gas or very low sulfur oil.

Therefore, it is reasonable to assume that combustion units that are fired on natural gas and fuel oil cannot exceed the 1,000 ppm SO_2 limits in Puget Sound Clean Air Agency Regulation I, Section 9.07 and WAC 173-400-040(6). The other emission units are not capable of generating SO_2 emissions as permitted. Therefore, the permit does not contain additional monitoring requirements.

[1] ASTM D396-78 requires that No. 2 fuel oil containing greater than 0.05% sulfur be dyed with Solvent Red 164 at the concentration spectrally equivalent to at least 3.9 pounds of the solid dye Standard Red 26 per 1,000 barrels in accordance with the mandates of the US EPA and IRS.

Requirements I.A.5, I.A.6, and I.A.12

Puget Sound Clean Air Agency Regulation I, Sections 9.11(a) and 9.15(d) and WAC 173-400-040(5) are similar requirements that address emissions that may be environmentally detrimental or cause a nuisance. Although the permit lists these requirements together, PSNS must comply with each. The monitoring method is based on responding to complaints and general inspections of the facility to identify any emissions that are likely to be injurious to human health, plant or animal life, or property, or that unreasonably interfere with enjoyment of life and property. Receiving complaints does not necessarily mean PSNS are in violation of this requirement, but PSNS has a responsibility to investigate complaints and take corrective action if necessary. The monitoring method specifies additional quarterly inspections of the facility to monitor for changes at the landfill that may result in emissions. Quarterly inspections are appropriate for the reasons listed below. These factors are consistent with EPA's April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*.

The facility is currently in compliance with these requirements. The emissions most likely to be environmentally detrimental or cause a nuisance are the emissions generated by the nuclear vessel recycling activities in the dry docks. Asbestos and surface coating removal are done with point source mechanical controls of all contaminated air with 99.9%+efficient filtration. Cutting operations are an area source that emit particulate emissions. These emissions are partially contained by the 35 to 60 foot depth of the sidewalls of the six dry docks. Annual emissions from the facility are generally proportionate to the number of vessels processed. The number of vessels being processed is now down to one-third to of the peak number experienced in the mid-1990's, or approximately four per year. In addition, PSNS has for employee safety reasons moved 1/2 of the cutting operations into a converted building with a 99.9%+efficient dust collection system. Now the vessels are only processed into pieces small enough to remove from the dry dock for further cutting at the indoor facility, into sizes that can be transported by rail out of the shipyard. This has decreased the potential for emissions leaving the dry docks by half by converting that portion of an area source into a point source with controls. By the end of the period covered by this permit only one vessel per year will be processed at PSNS. However, it is possible that after the next Title V Air Operating Permit renewal that the first nuclear powered aircraft carrier will be processed for recycling. This future project would be as big as processing six or more other smaller vessels. Because much of that vessel would extend more than 100 feet above the top of the dry dock, special procedures would have to be designed into the project to prevent fugitive emissions. This special case would be taken into account in the new source review process of Puget Sound Clean Air Agency Regulation I, Section 6.03. For the present the dry docks quarterly facility-wide inspections, covering asbestos removal, surface coating removal, and cutting operations, will insure that the PSNS can respond to any externally caused changes in conditions that may increase emissions.

Requirements I.A.6, I.A.7, I.A.8 , and I.A.16

Puget Sound Clean Air Agency Regulation I, Section 9.15(a) requires best available control technology (BACT) for all fugitive dust emissions. WAC 173-400-040(3) addresses fugitive dust emissions for some activities and WAC 173-400-040(8) requires reasonable precautions or reasonably available control technology (RACT) to control fugitive emissions. Puget Sound Clean Air Agency Regulation I, Section 9.15(a) refers to cleaning vehicle undercarriages before they leave a facility to prevent track-out of mud or dirt onto public roadways. Puget Sound Clean Air Agency Regulation I, Section 9.15(a)(4) refers to prevention of escape of dust-bearing materials from trucks operated on public roadways. Recording of fugitive dust emissions is not necessarily a violation of the requirement, since the requirement does not prohibit fugitive dust emissions, but prohibits fugitive dust unless BACT is employed.

PSNS does not handle or process materials that are likely to cause fugitive dust emissions without point source controls. Except for surface coating booths all point sources that have the potential to emit fugitive dust are controlled with 99.9%+dust filters. As long as PSNS follows its O&M plans and perform the quarterly facility wide inspections then there will be a large margin of assurance that these point sources will not become fugitive dust sources.

Fugitive dust from track out is not very likely because 100% of PSNS' grounds in the industrial area are paved and all vehicular traffic leaving PSNS goes through two security checkpoints and another 1/2 mile of paved roads through the Bremerton Naval Station before exiting on a public highway. The Bremerton Naval Station will also be conducting facility wide inspections under its Title V Air Operating Permit for track out. One of the things on their list to check will be deposition of materials from PSNS from vehicles transiting through their area.

PSNS has the responsibility to perform quarterly inspections of its property to determine if vehicles are creating track-out or spillage of mud or dirt onto paved public roadways. The Puget Sound Clean Air Agency considers these reasonable precautions to prevent track-out or spillage onto public roadways.

Therefore, the monitoring method specifies quarterly inspections of the facility to monitor for fugitive emissions for the reasons listed below. These factors are consistent with EPA's April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*. The monitoring method is based on visual inspections with the PSNS taking corrective action as soon as possible but no later than within 24 hours if any fugitive dust emissions are noted. The monitoring method is consistent with Puget Sound Clean Air Agency's *"Agency Policy on Fugitive Dust Controls, March 1995,"* which specifies reasonable precautions that must be taken to prevent fugitive dust emissions, but does not necessarily define BACT for all processes.

1) Initial compliance. The Puget Sound Clean Air Agency has not had a fugitive dust complaint nor during the last five years has the PSNS had a violation of these fugitive dust regulations.

2) Margin of compliance. The emission units are unlikely to generate emissions in excess of allowable limits except under the most unusual circumstances, so long as PSNS follows its O&M Plan.

3) Variability of process and emissions. Since all traffic surfaces and parking lots are paved, the potential for fugitive dust from these is limited. There are no changes that are likely to occur from outside influences, such as weather, that may suddenly increase fugitive emissions leaving the facility. The most significant variable affecting emissions would be the degree to which PSNS follows its O&M Plan.

4) Environmental impacts of problems. Most likely impact would be from a truck making a delivery to the base, or from the base to the landfill, that loses control of its load.

5) Technical considerations. Paved surfaces are easily cleaned by on-site personnel. Even if a large quantity of a dusty material like gypsum drywall arrived and was spilled off of a truck, facility-wide inspections, either in response to an internal complaint or at least quarterly as set in the monitoring method, will insure that the PSNS can respond to these externally-caused changes that increase fugitive emissions.

The fugitive dust requirements that are in the state implementation plan are addressed in I.A.6 and I.A.7. The Puget Sound Clean Air Agency Board of Directors revised Section 9.15 on March 11, 1999, and it became effective April 17, 1999. We have included the revised fugitive dust requirements in the state-only section. The amended version will be forwarded to EPA as a SIP amendment. Upon approval of the SIP changes, the revised version of Regulation I, Section 9.15 will be federally enforceable and the old version will no longer apply. The revised rule requires the use of reasonable precautions for fugitive dust and lists some examples of reasonable precautions. The Monitoring, Maintenance and Recordkeeping Methods are the same as those listed in I.A.6. and I.A.7.

Puget Sound Clean Air Agency Regulation I, Section 9.15(c) prohibits fugitive dust emissions from any refuse burning equipment, fuel burning equipment, equipment used in a manufacturing process, or control equipment. The monitoring method specifies quarterly inspections of the facility to monitor for changes at PSNS that may cause fugitive emissions for the reasons listed below. These factors are consistent with EPA's April 30, 1999 Draft *Periodic Monitoring Technical Reference Document*. PSNS does not have any refuse burning equipment (i.e., equipment employed to burn any solid or liquid combustible refuse), and all other equipment subject to this requirement is now either controlled or vented directly through a stack. Other combustion sources for heating use liquid fuels that would pass their emissions through their stacks are subject to other monitoring methods, and are not likely to cause fugitive emissions. Therefore, it is very unlikely that PSNS would cause a violation of this standard while complying with the other requirements in the permit.

Requirements I.A.9

Puget Sound Clean Air Agency Regulation I, Section 9.20 requires PSNS to maintain equipment in good working order. Section 9.20(a) applies to sources that received a Notice of Construction Order of Approval under Puget Sound Clean Air Agency Regulation I, Article 6. Section 9.20(b) applies to equipment not subject to Section 9.20(a). Section II.A Monitoring, Maintenance, and Recordkeeping Procedures of the permit identifies the minimum monitoring criteria for maintaining equipment in good working order. This section identifies both facility-wide criteria and specific criteria for the emission units and activities.

In addition, the facility-wide inspections provide monitoring of the general effectiveness of PSNS's O&M Plan. The Puget Sound Clean Air Agency chose to list all of Section II.A as the monitoring method because many parts of Section II.A apply to several emission units and activities. Where there are specific monitoring requirements for specific emission units, the Puget Sound Clean Air Agency has listed them in Section II.A.2. The Puget Sound Clean Air Agency has determined that following the requirements of Section II of the permit provides sufficient monitoring criteria to certify that the equipment has been maintained in good working order. However, the Puget Sound Clean Air Agency reserves the right to evaluate the maintenance of each piece of equipment to determine if it has been maintained in good working order.

Requirement I.A.10

In accordance with Puget Sound Clean Air Agency Regulation I, Section 7.09(b), PSNS are required to develop and implement an O&M Plan to assure continuous compliance with Puget Sound Clean Air Agency Regulations I, II, and III. The requirement specifies that the Plan shall reflect good industrial practice, but does not define how to determine good industrial practice. To clarify the requirement, the Puget Sound Clean Air Agency added that, in most instances, following the manufacturer's operations manual or equipment operational schedule, minimizing emissions until the repairs can be completed and taking measures to prevent recurrence of the problem may be considered good industrial practice. This language is consistent with a Washington Department of Ecology requirement in WAC 173-400-101(4). The Puget Sound Clean Air Agency also added language establishing criteria for determining if good industrial practice is being used. These include, but are not limited to, monitoring results, opacity observations, review of operations and maintenance procedures, and inspections of the emission unit or equipment. The Puget Sound Clean Air Agency added this wording in response to Washington State court decision, Longview Fibre Co. v. DOE, 89 Wn. App. 627 (1998), which held that similar wording was not vague and gave sufficient notice of the prohibited conduct.

Puget Sound Clean Air Agency Regulation I, Section 7.09(b) also requires PSNS to promptly correct any defective equipment. However, the underlying requirement in most instances does not define "promptly"; hence for significant emission units and applicable requirements that PSNS has a reasonable possibility of violating or that a violation would cause an air quality problem, the Puget Sound Clean Air Agency added clarification that "promptly" usually means within 24 hours. For many insignificant emission units and equipment not listed in the permit, "promptly" cannot be defined because the emission sources and suitable pollution control techniques vary widely, depending on the contaminant sources and the pollution control technology employed. However, the permit identifies a means by which to identify if PSNS are following good industrial practice.

As described in Section V.Q, PSNS must report to the Puget Sound Clean Air Agency any instances where it failed to promptly repair any defective equipment. In addition, PSNS has the right to claim certain problems were a result of an emergency (Section V.R) or unavoidable (Section V.S).

Following these requirements demonstrates that PSNS has properly implemented the O&M Plan, but it does not prohibit the Puget Sound Clean Air Agency or EPA from taking any necessary enforcement action to address violations of the underlying applicable requirements after proper investigation.

Requirement I.A.13

Puget Sound Clean Air Agency Regulation I, Section 9.10(a) specifies that HCl emissions shall not exceed 100 ppm (dry), corrected to 7% O_2 for combustion sources. Since PSNS burns only pipeline-grade natural gas, distillate oil, and very low sulfur fuel oils that contain no chlorine, the facility is incapable of violating this standard while complying with the other requirements in the permit. Therefore, the permit does not contain additional monitoring requirements.

Requirement I.A.14

RCW 70.94.040 is similar to Puget Sound Clean Air Agency Regulation I, Section 9.11 and is listed separately here because it is not a federally enforceable requirement.

Section I. B. (Emission Unit Applicable Requirements)

Section I.B of the permit lists applicable requirements that are specific to an emission unit or activity. The Generally Applicable Requirements of Section I.A apply to all the emission units listed in Section I.B and are not repeated in this section. Monitoring Methods and Reference Methods are also identified if they are different from, or in addition to, those listed in Section I.A. Where a recently adopted federal regulation does not identify a monitoring method, the permit does not identify one either, because it is EPA's policy to incorporate all necessary monitoring into recently adopted federal regulations except where the Puget Sound Clean Air Agency has determined it necessary.

1. <u>Emission Unit #1 (EU-1):</u> Vapor Degreasing and Solvent Cleaning Operations

This section includes all activities and equipment associated with vapor degreasing and solvent metal cleaning operations, including degreasing and cleaning solvent storage. The Shipyard utilizes two vapor degreasers, both located in the Building 873 Metal Preparation Facility. One vapor degreaser employs the Hazardous Air Pollutant (HAP) trichloroethylene (also a Toxic Air Contaminant) and thus is regulated by the Halogenated Solvent NESHAP. The second and larger vapor degreaser employs a solvent consisting of greater than 95% N-propyl bromide, neither HAP nor Toxic Air Contaminant (TAC), with trace amounts of certain TACs. Both vapor degreasers are equipped with spray wands, but neither have lip exhausts.

Throughout the Shipyard in production shops exists dozens of solvent metal cleaners (solvent tanks), which were not listed in the AOP, and are moved around the Shipyard as need dictates. These solvent tanks employ the following low vapor pressure solvents (or equivalent): Stoddard solvent; hydro-treated kerosene; or isopropanol-water mixture. These solvent tanks are neither cold solvent cleaners (as defined by PSCAA Reg III) or vapor degreasers.

2. Emission Unit #1 (EU-2): Chemical Tankline Operations

This section includes the hard chrome electroplating tanks, chemical process tankline operations, and associated wet scrubbers located in the Building 873 metal preparation facility. The scrubber system #7, currently in use for chrome plating and anodizing operations, utilizes a packed bed scrubber followed by a high density fiber-bed mist eliminator. Packed bed scrubber #3 is also currently approved by PSCAA for chrome plating and anodizing but will most likely not be used for such operations during the term of the Operating Permit. *Before the tank line for Packed Bed Scrubber #3 was brought back online for chrome operations, a new Order of Approval, and a new performance test would be required as per Section II.A.2(h), as changes have been made in the tankline and the exhaust ductwork since the last performance test.* The other scrubbers are not designed for controlling chromic acid anodizing or plating. The chrome plating operations are regulated as a reconstructed source under the National Emission Standards for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (40 CFR Part 63 Subpart N), otherwise known as the Chrome NESHAP. The use of polyballs or a wetting agent was not necessary to demonstrate compliance with the applicable emission standard of 0.015 mg/dscm during initial source testing required by the Chrome NESHAP. Facility-wide actual hexavalent chromium emissions from the current hard chrome plating operations at PSNS are less than one pound per year. There is more than one path that can be used to achieve compliance with this NESHAP. Only the one used by PSNS is shown in the table of applicable requirements because any change in compliance method would require equipment changes that would be covered by the New Source Review process in Section IV, Activities Requiring Additional Approval.

3. Emission Unit #3 (EU-3): Wood Furniture Manufacturing Operations

This section includes all activities and equipment associated with wood furniture manufacturing operations The Shipyard uses less than 100 gallons of finishing material and adhesives per month for wood furniture manufacturing. At this level of material usage, the facility meets the criteria for an "incidental wood furniture manufacturer" as defined in 40 CFR 63 Subpart JJ, National Emission Standards for Wood Furniture Manufacturing Operations. Incidental wood furniture manufacturers must only keep purchase or usage records are not subject to any other provision of Subpart JJ. [40 CFR 63.800(a)]

For State Only requirements applicable to spray applications of furniture finishes refer to the "Surface Coating and Associated Operations"

4. Emission Unit #4 (EU-4): Surface Coating and Associated Operations

This section includes all activities and equipment associated with surface coating operations. These operations include coating mixing, application, drying, and curing; spray gun and application equipment cleaning; and material and waste handling. Cleaning, primer application, and topcoat

application operations subject to the Ship Building and Ship Repair (Surface Coating) NESHAP (40 CFR Part 63 Subpart II) are included in this section. The activities included in this section are conducted throughout the Shipyard.

The permit is written to include all four compliance paths that are available for this NESHAP. PSNS relies mainly on compliant coatings that are purchased and used without thinning. HAP emissions will be further reduced during the years this permit is in effect because NAVY wide there is a new policy to purchase HAP free coatings. The eventual goal is to only purchase HAP free coatings. As this policy is implemented we will see further annual HAP emission reductions. The four compliance paths and the NESHAP coating limitations are illustrated below in the next figures and table.

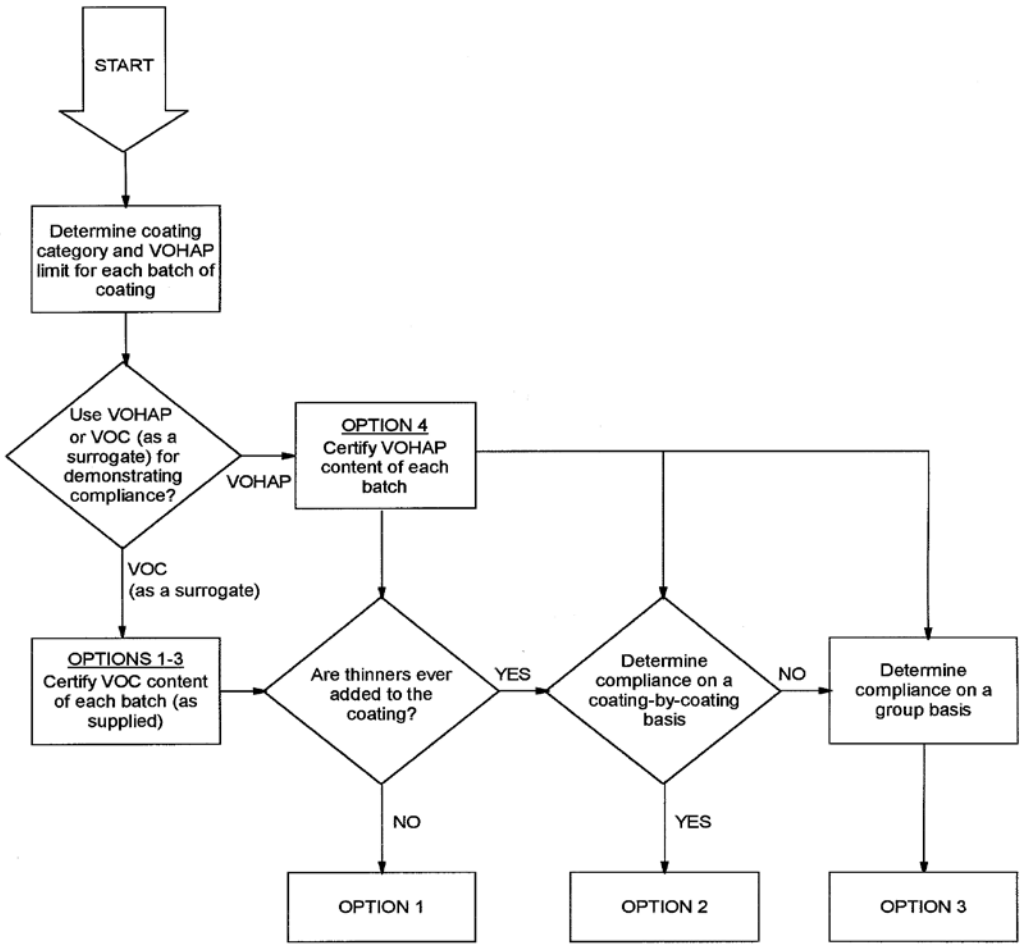

Figure 1. – Four Primary Compliance Paths

Table 1. – VOHAP Limits for Different Classes of Coatings Used in Shipbuilding

Coating Category	VOHAP limits		
	grams/liter coating (minus water and exempt compounds)	grams/liter solids	
		t ≥ 4.5°C	t < 4.5°C
General use	340	571	728
Specialty	--	--	--
Air flask	340	571	728
Antenna	530	1,439	--
Antifoulant	400	765	971
Heat resistant	420	841	1,069
High-gloss	420	841	1,069
High-temperature	500	1,237	1,597
Inorganic zinc high-build	340	571	728
Military exterior	340	571	728
Mist	610	2,235	--
Navigational aids	550	1,597	--
Nonskid	340	571	728
Nuclear	420	841	1,069
Organic zinc	360	630	802
Pretreatment wash primer	780	11,095	--
Repair and maint. of thermoplastics	550	1,597	--
Rubber camouflage	340	571	728
Sealant for thermal spray aluminum	610	2,235	--
Special marking	490	1,178	--
Specialty interior	340	571	728
Tack coat	610	2,235	--
Undersea weapons systems	340	571	728
Weld-through precon. primer	650	2,885	--

Figure 2. – Labels used on all coatings received by PSNS as per their compliance plan.

5. Emission Unit #5 (EU-5): External Combustion Operations – Stationary and Portable

This section includes the four steam testing boilers and two associated super heaters located in Building 431, Source ID# 41-431-181-1 through 41-431-181-6. Construction of these two stationary emission units commenced prior to June 9, 1989. The applicability of 40 CFR 60, Subpart Dc, covers boilers for which construction commenced after June 9, 1989. Portable boiler 03-PORT-184 is also included in this section, and has a maximum design input capacity of less than 10 million BTUs per hour. The applicability of 40 CFR 60, Subpart Dc, covers boilers with an input capacity of between 10 and 100 million BTU/hr. Therefore, these boilers are not subject to the Standards of Performance for New Stationary Sources (NSPS) of 40 CFR Part 60.

6. Emission Unit #6 (EU-6): Rotoclones, Baghouses, Dust Collectors, Abrasive Blasting Operations and other Particulate Control Operations

This section includes all rotoclones, baghouses, dust collectors, abrasive blasting operations and other equipment, which exhaust to the outside and control particulate emissions from the various activities including carpentry, machining/mechanical cutting of metal or nonmetal parts, thermal process cutting, housecleaning, general vent and abrasive blasting of coated or oxidized surfaces. Surface coatings may include coatings containing PCB and/or asbestos.

Since nuclear vessel recycling is became a part of what PSNS does in this facility there have been a number of coating removal units built for handling coatings contaminated with PCBs and Asbestos. The associated vacuum recovery units and exhausts are controlled with 99.9%+ efficient particulate filters. New Order of Approvals were assigned to these units to allow them to be used outside of the dry docks for non contaminated coating removals after thorough decontamination. As the number of vessels available for recycle have decreased, more of these units have been released for other uses. They have been replacing older units as they wear out throughout the shipyard, with the effect of upgrading nearly all of the dust collection systems to high efficiency units.

7. Emission Unit #7 (EU-7): Asbestos Removal Facility Operations

This section includes all permanent facilities used to conduct asbestos delagging and removal. These facilities are used to facilitate removal of Asbestos Containing Material (ACM) from shipboard components, piping, and machinery. The ACM removal operations are conducted in support of submarine and surface ship dismantlement and recycling workload executed by PSNS. This section of this permit application is specific to these permanent facilities and does not cover demolition or renovation activities conducted shipboard or conducted in buildings or structures located at PSNS.

8. Emission Unit #8 (EU-8): Reinforced Plastic Composite Operations

This section includes all activities associated with polyester, vinylester, gelcoat, and other resin operations in which the styrene monomer is a reactive monomer for the resin. The following work areas in this section have been permitted under a Notice of Construction or have otherwise been registered with the Puget Sound Clean Air Agency. Reinforced composite operations involving other resins, which do not contain styrene, are also conducted in these areas.

The NESHAP for Boat Manufacturing, 40 CFR 63 Subpart VVVV, does not apply to boat repair, only to manufacturers of the hulls and decks of fiberglass boats.

9. Emission Unit #9 (EU-9): Operations Without Specific Applicable Requirements

This emission activity consists of any equipment and associated activities that generate air contaminants that do not have specific applicable requirements as listed elsewhere in this permit.

This section contains insignificant emission units as defined in WAC 173-401 and other equipment and activities that do not have specific applicable requirements as listed elsewhere in this permit. Insignificant emission units and activities that are categorically exempt under WAC 173-401-532 are not listed in this section.

PSNS may conduct operations that do not have specific applicable requirements but are still subject to the generally applicable requirements listed in Section I.A. of the permit. Most of those activities are listed under this emission unit. PSNS requested that the Puget Sound Clean Air Agency include this emission unit to ensure that these activities are listed in the permit and protected by the permit shield. The Puget Sound Clean Air Agency concluded that the permit contains all the applicable requirements elsewhere in the permit and recognizes that PSNS may conduct these activities. By listing these emission units and activities, the Puget Sound Clean Air Agency is not implying that the other requirements of the permit do not apply. For example, if PSNS were to modify an activity, listed in this emission activity, in such a way that required new source review under Section IV.A. of the permit, the Puget Sound Clean Air Agency would require a Notice of Construction.

This section includes:

- Ventilating systems, including fume hoods, not designed to prevent or reduce air contaminant emissions.
- Fuel burning equipment that has a maximum input rate of:
  - (A) less than 0.5 million Btu per hour (0.15 million joules per second) burning waste-derived fuel; or
  - (B) less than 10 million Btu per hour (3 million joules per second) burning natural gas, propane, or butane; or
  - (C) less than 1 million Btu per hour (0.3 million joules per second) burning any other fuel
- Standby internal combustion engines operated <500 hrs per year
- Insecticide, pesticide, or fertilizer spray equipment
- Internal combustion engines less than the size thresholds of the proposed United States Environmental Protection Agency (EPA) New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart FF (Stationary Internal Combustion Engines, 44 CFR 43152 7/23/79) or the promulgated EPA NSPS 40 CFR Part 60 Subpart GG (Stationary Gas Turbines)
- Laboratory equipment used exclusively for chemical or physical analyses
- Laundry dryers without control equipment
- Dryers or ovens used solely to accelerate evaporation
- Routing, turning, carving, cutting, and drilling equipment used for metal, wood, plastics, rubber, leather, or ceramics which does not release air contaminants to the ambient air
- Storage tanks:
  - (A) that do not store substances capable of emitting air contaminants; or
  - (B) with a rated capacity of 1,000 gallons (3,780 liters) or less used for storage of gasoline; or

(C) with a rated capacity of less than 10,000 gallons (38,000 liters) used for storage of volatile organic compounds; or

(D) with a rated capacity of less than 40,000 gallons (150,000 liters) used for storage of volatile organic compounds with a true vapor pressure less than 0.01 kPa (0.002 psia)

- Sanitary or storm drainage systems
- Welding, brazing, or soldering equipment
- Asphalt roofing and laying equipment (not including manufacturing or storage)
- Restaurants and other retail food-preparing establishments
- Cold solvent cleaners using a solvent with a true vapor pressure less than or equal to 4.2 kPa (0.6 psia)
- Retail printing operations (not including web presses)
- Spray painting or blasting equipment used at a temporary location to clean or paint bridges, water towers, buildings, or similar structures
- Any point source that has been determined through review by the Control Officer not to warrant a "Notice of Construction and Application for Approval," due to the minimal amount and nature of air contaminants produced and potential to contribute to air pollution, with special reference to effects on health, economic and social factors, and physical effects on property
- Metal forming (pull-out, tube bending, and hydraulic forming press), metal joining or metal separating operations
- Manufacturing research and development, quality control and product testing operations
- Detail part assembly
- Wipe solvent cleaning for non-aerospace parts
- Aqueous and emulsion cleaning
- Non-styrene composite processing
- Groundwater remediation operations
- Accumulation and collection of hazardous waste other than for aerospace parts manufacture
- Material and waste handling, except as listed elsewhere in this permit
- Chemical mixing
- Curing ovens
- Solvent cleaning of non-aerospace or non-motor vehicle parts
- Spray gun cleaning equipment used for non-aerospace or non-motor vehicle parts

- Small industrial vacuum systems that vent outside
- Touch-up spray, hand-held aerosol can spray, of non-aerospace or non-motorized vehicle parts outside of a booth
- Remote reservoir solvent cleaners
- Miscellaneous abrasive blast units not requiring an Order of Approval
- Paint mixing
- Paint mixing room ventilation
- Hand applied alodine
- Boric Sulfuric Acid Anodize systems
- Alodine systems
- Engraving, including laser engraving of aluminum
- Storage tanks not regulated under 40 CFR Part 60 Subpart K, Ka, or Kb

10. Radionuclides Emission Unit: Radioactive Air Emissions License

The radioactive air emissions sources at this facility are under the control of the US Navy. The Puget Sound Clean Air Agency does not itself have the expertise to review the radionuclide portion of the Title V Air Operating Permit application, or to evaluate its completeness or state of compliance with either the federal regulation for air emissions of radio nuclides contained in 40 CFR 61 Subpart I, or the Washington State radioactive air emissions regulations in WAC 246-247. Those activities, including site inspections, have been contracted to the Washington State Department of Health since 1995. Any radioactive air emissions License issued by the State of Washington Department of Health must be incorporated as an applicable portion of the air operating permit as required under RCW 70.94.161(10)(d) and WAC 246-247-040. The Department of Health has issued a Radioactive Air Emissions License to the Naval Station Bremerton, and that License has been included in the air operating permit. The Radioactive Air Emissions License is written in the Department of Health format, following Department of Health interpretations of Department of Health requirements, and may not follow the format or conventions used by the Puget Sound Clean Air Agency in the main body of the air operating permit.

The License issued by the Department of Health to the Puget Sound Naval Station covers radionuclide air emissions from various emission units identified in the attached License.

Monitoring, Maintenance and Recordkeeping Procedures

PSNS must follow the procedures contained in Section II of the permit, Monitoring, Maintenance, and Recordkeeping Procedures. Failure to follow a requirement in Section II may not necessarily be a violation of the underlying applicable emission standard in Section I. However, not following a requirement of Section II is a violation of Section II and PSNS must report such violations, as well as violations or deviations from any other permit condition, as a deviation under Section V.P.2 of the permit. In addition, all information collected as a result of implementing Section II can be used as credible evidence under Section V.N.2. of the permit. Reporting a permit deviation and taking corrective action does not relieve PSNS from its obligation to comply with the underlying applicable requirement.

A standard Puget Sound Clean Air Agency Notice of Construction Approval condition, NOC Condition No. 1, requires that the equipment, device or process be installed according to plans and specifications submitted to the Puget Sound Clean Air Agency. Once the equipment is installed, the Puget Sound Clean Air Agency requires certification by the applicant that the installation was as approved; this is usually done with a Notice of Completion. Normally within six months to a year after receiving a Notice of Completion, a Puget Sound Clean Air Agency inspector verifies by inspection that the equipment was installed as specified and in accordance with the Approval Order. While the Notice of Completion is a one-time requirement that PSNS has complied with, PSNS cannot change the approved equipment in such a manner that requires an NOC without first obtaining an NOC approval which is addressed in Section IV.A of the permit. In most cases, once PSNS has filed the Notice of Completion and a Puget Sound Clean Air Agency inspector has verified that the equipment was installed according to the Approval Order, the Puget Sound Clean Air Agency considers NOC Condition No. 1 an obsolete condition. However, in some cases in the permit the Puget Sound Clean Air Agency has identified a need to specify that the equipment cannot be altered in such a manner that requires an NOC Approval.

The permit requires PSNS to conduct quarterly facility-wide inspections. Due to the size of this facility, PSNS staff will have to perform weekly or monthly excursions into PSNS facilities in order to finish inspection of the whole facility properly by the end of the quarter. These inspections are to include checking for prohibited activities under Section III of the permit and activities that require additional approval under Section IV of the permit, as well as checking for any “nuisance” odor bearing contaminants. The Puget Sound Clean Air Agency determined the frequency of these inspections after considering the potential for emissions, PSNS in-house training practices and similar factors. If problems are identified, PSNS has the responsibility to not only correct the specific problem, but also to adjust the work practices and training to prevent future problems.

In determining the appropriate frequencies for monitoring identified in Section II.A of the permit, the Puget Sound Clean Air Agency considered several factors, including the following:

- PSNS’s compliance history and the likelihood of violating the applicable requirement;
- The variability of the emission unit including the variability of emissions over time;
- The likelihood that the monitoring would detect a compliance problem;
- The likely environmental impacts of a deviation;

- Whether add-on controls are necessary for the unit to meet the emission limit;
- Other measures that PSNS may have in place to identify problems;
- The types of monitoring, process, maintenance, or control equipment data already available for the emissions unit;
- The technical and economic considerations associated with the range of possible monitoring methods;
- The type of monitoring found on similar emissions units; and
- Requirements for monitoring frequencies in applicable federal regulations.

Basis for Prohibited Activities

Some of the requirements PSNS identified in the operating permit application are included in Section III as prohibited activities. The Puget Sound Clean Air Agency has listed these activities in this section to highlight that they cannot occur at the facility. Since these activities are prohibited, routine monitoring of parameters is not appropriate; however, the permit does require PSNS to look for such activities during a routine facility-wide inspection.

Puget Sound Clean Air Agency Regulation I, Section 9.13 and WAC 173-400-040(7) contain similar requirements addressing concealment and masking of emissions. Although both requirements apply, the permit language has been simplified by grouping these requirements together.

Activities Requiring Additional Approval

Some of the requirements PSNS identified in the operating permit application are included in Section IV as activities that require additional approval. For new source review, the permit language has been simplified. Chapter 173-460 WAC and Puget Sound Clean Air Agency Regulation I, Article 6 New Source Review Programs require approval to construct, install, establish, or modify an air contaminant source. All these requirements apply, but the language in these requirements has been incorporated into one section to simplify the permit language. WAC 173-400-110 does not apply within Puget Sound Clean Air Agency's jurisdiction because the rule exempts areas that have a local program that is incorporated into the state implementation plan.

Standard Terms and Conditions

Some of the requirements PSNS identified in the operating permit application are included in Section V, Standard Terms and Conditions. This provided a mechanism for describing requirements that are more general in nature. This section also contains the standard terms and conditions specifically listed in WAC 173-401-620.

Section V.Q.1.b of the permit requires PSNS to report deviations of the permit to the Puget Sound Clean Air Agency, normally within 30 days after the end of the month. Section V.Q.1.c of the permit requires that a responsible official certify all required reports at least once every six months. PSNS may submit the certification with the report or certify all the reports submitted in the previous six months. For example, if PSNS detected a deviation in January, it must report the deviation to the Puget Sound Clean Air Agency in February. A responsible official must certify the report according to WAC 173-401-520 at the time the report is submitted or any other time within six months of submitting the report.

If PSNS does not detect any deviations to report for a six-month period, then PSNS shall report that there were no deviations during the six-month period.

Notification and recordkeeping, performance test requirements, data recovery, and all the information that has to be sent to the Clean Air Agency and EPA are covered in this section.

Basis for Inapplicable Requirements

The opacity requirements in Regulation I, Sections 9.09(b)(1) and 9.09(b)(2) are inapplicable because the source does not (and is not required to) monitor opacity with continuous emission monitors.

WAC 173-490-030 - Operating permit sources are exempt from registration under RCW 70.94.161(17).

The transportation demand management plan requirement from RCW 70.94.531 (State Only Requirement) is an inapplicable requirement as it does not meet the definition of an applicable requirement.

Obsolete Requirements

The Puget Sound Clean Air Agency has issued many Notice of Construction Orders of Approval to Puget Sound Naval Shipyard. Each of these Orders of Approval contains at least one condition that requires PSNS to do something one-time and one-time only. The Puget Sound Clean Air Agency has determined that some of the approval conditions are now informational statements because they have already been complied with and, therefore, do not meet the criteria of being applicable requirements. Those approval conditions are described here.

The NOC Order of Approvals through the mid-1980's by the Puget Sound Clean Air Agency included one General and some times added a Specific condition. The General Condition was:

"Permission is hereby granted as provided in Article 6 of Regulation I of PSAPCA to APPLICANT to install, alter, or establish the equipment, device, or process described hereon at the INSTALLATION ADDRESS in accordance with the plans and specifications on file in the ENGINEERING DIVISION of PSAPCA. This approval is not a waiver of liability for the infraction of Regulation I nor does it relieve the APPLICANT or OWNER of any requirements of other government agencies."

PSAPCA or Puget Sound Air Pollution Control Agency was the former name of the Puget Sound Clean Air Agency before July 1, 1999.

Approval Condition No. 3 in NOC Orders of Approval issued prior to February 6, 1997 informs

the applicant that the approval does not relieve it of any requirement of any other agency. This requirement is informational only and is not included in the air operating permit.

Permit Condition No. 8 in Order of Approval 6382, for the Building 873 Metal Treatment Facility Upgrade (subject to Chrome NESHAP, 40 CFR 63 Subpart N), requires a source test within 180 days of startup. Such testing took place. The report is in Agency files, making this one requirement obsolete.

The following table lists all Orders of Approval that were transferred to Naval Station Bremerton, upon establishment of this facility as a separate major source, and not included in the permit.

No.	Approved	Approval Summary	Specific Approval Conditions in Order of Approval?	Status
2545	9/25/84	P-500 Steam Plant consisting of Three Riley Stoker VR-C3 Coal & Distillate Fueled Boilers with three SO2 Spray Dryer Absorbers, three Baghouses, and a Coal Handling System. Five GM EMD 645 FB 20 cyl oil-fired diesel engines	Yes	Superceded by NC 7646 Transferred to NSB
6732	4/25/97	One Portable Cleaver Brooks CB200-150 No. 2 Fuel Oil fired Boiler rated at 6.3 MM BTU/hr (ID 03-Port-184)	Yes	Transferred to NSB
7646	1/10/00	Modification to three existing Riley VR-C3 Boilers rated at 188 MMBtu/hr each by adding natural gas firing	Yes	Transferred to NSB
8449	4/20/01	One Speedaire Grainger Model 4TF28 Dry Filter System Spray Coating Booth rated at 7,280 cfm located in Building 995.	Yes	Transferred to NSB

The following table lists all Orders of Approval that are not active and not included in the permit. The conditions shown in the table are obsolete.

No.	Approved	Approval Summary	Specific Approval Conditions in Order of Approval?	Status
3556	7/17/90	One JWI J120E Metal Hydroxide Sludge Dryer at 275 cfm with a Lesson Venturi Wet Scrubber in Bldg 871	No	Equipment Removed
3676	2/20/91	One Lindberg Light Forge Furnace with six 100 MBH burners and one Lindberg Heavy Forge Furnace with six 100 MBH burners. Both forges located in bldg 452	No	Equipment Removed
5004	7/14/93	Modify existing Phillips Vapor Degreaser by adding Refrigerated Freeboard Chiller	No	Equipment Removed
7044	9/10/97	One F.S. I Inc 5002A Abrasive Blast Booth with an F.S.I. 3000F Cyclone Baghouse rated at 3,600 cfm (I.D. SIMA-PORT-141) Specific: 3. PSNS shall install and maintain a gauge to measure	Yes	Equipment Removed

No.	Approved	Approval Summary	Specific Approval Conditions in Order of Approval?	Status
		the pressure drop across the baghouse exhaust filters. Within 90 days after beginning operations the acceptable range for the gauge shall be clearly marked on or nearby the gauge. 4. Once each week that the baghouse is used PSNS shall determine if the pressure drop across the exhaust filters is in the acceptable range. 5. If the pressure drop is not within the acceptable range, PSNS shall take corrective action as specified in the facility's Operation and Maintenance Plan.		

No.	Approved	Approval Summary	Specific Approval Conditions in Order of Approval?	Status
7048	9/10/97	One Portable F.S.I. Inc. 5002(B) Flame Spray Booth rated at 11,900 cfm (I.D. SIMA-PORT-181) Specific: 3. PSNS shall install and maintain a gauge to measure the water flow across the spray booth exhaust. Within 90 days after beginning operations the acceptable range for the gauge shall be clearly marked on or nearby the gauge. 4. Once each shift that the spray booth is used, PSNS shall determine if the water flow is in the acceptable range. 5. If the water flow is not within the acceptable range, PSNS shall take corrective action as specified in the facility's Operation and Maintenance Plan.	Yes	Equipment Removed

The following table lists all Orders of Approval that were superceded by newer Orders of Approval. Therefore these older Orders are not included in the permit.

No.	Approved	Approval Summary	Specific Approval Conditions in Order of Approval?	Status
3255	7/12/89	Two skids, each skid with two Vapor RG11-E(2)8500-300-5973-VHK-75-2 Steam Generators and one super heater at 37 MMBH (Modified to add 500 hours per year operation limit when using fuel oil and to remove listing of 40 CFR 60 Subpart Dc as an applicable requirement).	Yes	Superceded by Modified NC 3255, dated 10/18/93
5848	3/16/95	Abrasive Blast Facility with a Dust Hog Dust Collector	No	Superceded by

No.	Approved	Approval Summary	Specific Approval Conditions in Order of Approval?	Status
		rated at 10,000 cfm. (Modified to correct brand and model of control equipment installed to Torit Downflo Model 2-16 Dust Collector (ID 71-825-141A rated at 10,000 cfm located in Bldg 825)		Modified NC 5848 dated 5/22/96
5118 5352 6350 7536 7537	10/4/93 3/9/94 2/7/96 1/8/99 1/9/99	Four Ipec Advanced Systems Abrasive Blasting Vacuum Recovery Units rated at 1060 cfm each, twelve Ross Cook Abrasive Blasting Vacuum Recovery Units rated at 1100 cfm each, one Demarco Max Vac Corporation Vacuum Recovery Unit rated at 1300 cfm, twenty-three Safe Manufactures Grit Recovery Units as follows: two rated at 2100 cfm, twelve rated at 4500 cfm each, two Torit DFT4-32 Cartridge Dust Collectors rated at 4500 cfm each and seven Torit DFT4-32 Cartridge Dust Collectors rated at 20,000 cfm each. (Modified to allow equipment normally used in the dry docks, for abrasive blasting of asbestos/PCB contaminated coatings, to be used in other parts of the shipyard after proper decontamination)	Yes	Superceded by Modified NC 7975 dated 4/18/00
8135	9/28/00	Thermal Process Cutting with emissions controlled by four Dust Collectors rated at 50,000 cfm each (ID 350-368-101 through 104) located in Bldg 368 (Modified to remove permit condition No. 5. - CAM monitoring requirements of 40 CFR 64 , when emissions tracking in the 1st year demonstrated that CAM requirements did not apply)	Yes	Superceded by Modified NC 8135 dated 5/3/02

Public Comments and Responses

In response to the public comments received on the proposed permit, we made several changes for the final permit. The substantive comments, our responses, and associated permit edits are summarized in the following sections. *(Italics represent Agency Response to Comments), (Underlined Italics represent actions taken or additions made)*

Comments Received from PSNS on the Title V Air Operating Permit Sections I-VIII – Letter to Claude Williams from L.A. Cole, Director, Environment, Safety and Health Office at PSNS (January 30, 2003).

PSNS Comment No. 1

I.B.2. Requirements EU 2.4, EU 2.5, and EU 2.10 are not applicable. See table I of Subpart N for applicability.

Puget Sound Clean Air Agency Analysis of Comment

40 CFR 63.6(e) is not applicable because 40 CFR 63.342(f) of subpart N contains work practice standards (operation and maintenance requirements) that override these provisions.

40 CFR 63.9(b)(3) is not applicable because 40 CFR 63.347(c)(2) of subpart N specifies notification requirements for new or reconstructed sources that are not major affected sources.

Puget Sound Clean Air Agency Response

EU 2.4, EU 2.5, and EU 2.10 removed

PSNS Comment No. 2

I.B.2. Requirement EU 2.37 does not apply to scrubber 7, only scrubber 3. Delete reference to scrubber 7. *(References to Scrubbers 3 and 7 accidentally switched in making this comment)*

Puget Sound Clean Air Agency Analysis of Comment

Packed bed scrubber #3 is also currently approved by PSCAA for chrome plating and anodizing like scrubber #7, but will most likely not be used for such operations during the term of the Operating Permit.

In a letter from Captain D.E. Baugh, the shipyard commander, dated April 28, 1998 stated: "Hard chromium electroplating was performed in Tank #67 using Scrubber #3 as the emissions control device until October 3, 1997, at which time chromium plating was discontinued at Scrubber #3 and transferred to Tanks #A3, B1, and B2 using Scrubber #7 as the emissions control device." *Therefore scrubber #3 is no longer an "affected source" under Subpart N. If the tank line controlled by Scrubber #3 were to return to chrome plating operations this requirement could once again apply. Therefore the requirement stays in the operating permit. It is possible however that, before the tank line for Scrubber #3 was brought back online for chrome operations, a new performance test could be required as per Section II.A.2(h), as changes may have been made in the tankline and the exhaust ductwork since the original performance test.*

Puget Sound Clean Air Agency Response

Wording of this requirement changed to: "On and after the date of a performance test PSNS must monitor and record the velocity pressure at the inlet to packed bed scrubbers # 3 & 7 once each day that the affected source is operating to control chromium electroplating emissions"

PSNS Comment No. 3

I.B.8. Equipment description should include the following two emission units. These two booths are used for applying resins using spray equipment:

SOURCE ID#	ORDER OF APPROVAL	DATE INST.	DESCRIPTION
71-862-121	3957	1992	dry filter spray booth
71-862-125	8240	2000	dry filter spray booth

Puget Sound Clean Air Agency Response

These booths added to the equipment list

PSNS Comment No. 4

II.A.2.(d)(ii)(e) Change decontamination swipe sample requirements to reflect current TSCA language. The language contained in Condition number 4 of Order of Approval 8732 will work for all abrasive blasting equipment and dust collectors potentially contaminated with PCBs through use. The language in the draft permit is not enforceable. EPA method 8081/94 can not provide analysis results in concentration, e.g. ppm. The equipment used under NOC numbers 7975 and 8732 is used interchangeably for in-hull abrasive blasting. The Shipyard requests that monitoring specified in the permit for PCB decontamination of this equipment be consistent.

Puget Sound Clean Air Agency Analysis of Comment

The method in 40 CFR 761.79 checks for a cleanliness level of less than 10 micrograms PCBs per 100 square centimeters as measured by a standard wipe test (defined in "definitions" - 40 CFR 761.123) at locations selected in accordance with the subpart. This method uses a gauze pad or glass wool of known size, saturated with hexane. Since this method not only measures the potion of any surface dust that is PCB but any remaining liquid PCB that may be adhering to the surface, a pass of this cleanliness standard is cleaner than when only measuring for 10 ppm PCBs in the dust alone left on the surface. The 10 ppm limit identified in Order of Approval 7975 was intended to address residue sampling and analysis. Present operations leave no residue to sample, except for material which is collected through a wipe samples. The intent through both of these Orders of Approval was to follow TSCA guidelines for determining "clean" for this equipment. Therefore, we agree that the updated TSCA method required by Order of Approval 8732 shall also be used for units under Order of Approval 7975. However, unless a change is requested to Order of Approval 7975 by PSNS the reference to the old method will remain in the tables, but the monitoring method of 8732 will be referenced in II.A.2.(d)(ii)(e).

Puget Sound Clean Air Agency Response

Order of Approval 8732 was approved on January 8, 2003, approximately one week after the beginning of the public comment period for this Title V Air Operating Permit. Since the monitoring method is germane to the discussion, and since PSNS comments refer to it, we have added the units to the equipment list, and the Order of Approval conditions to the table.

The monitoring method II.A.2.(d)(ii)(e)was changed to be consistent with Order of Approval 8732.

PSNS Comment No. 5

II.A.2.(d)(vi) First bullet: "Start-up, shutdown and malfunction plan" of 40 CFR 63.6(e)(3) is not required, Subpart T overrides this requirement per Appendix B of Subpart T. Remove reference to "start-up, shutdown and malfunction plan".

Puget Sound Clean Air Agency Analysis of Comment

We agree that Appendix B states that Subpart T overrides the requirement of a startup, shutdown and malfunction plan in 40 CFR 63.6(e)(3) because it has its own startup and shutdown procedures to be followed. The 1st bullet under II.A.2.(d)(vi) states that these degreasers "shall be operated by a written standard operating procedure, placard, operation and maintenance plan, or, startup, shutdown and malfunction plan". *Which startup, shutdown and malfunction plan is used depends on the degreaser. For the halogenated solvent degreaser the method in Subpart T, not Subpart A would be use and placed in their plan. For the n-propyl bromide vapor degreaser an O&M plan, which includes a startup, shutdown and malfunction plan, will have to be developed using information from the equipment manual and manufacturer's recommendations for both the unit and the solvent.*

Startup, shutdown and malfunction still needs to be included in an O&M plan for these degreasers whether required either by a Subpart or not.

Puget Sound Clean Air Agency Response

No changes made to the Operating Permit.

PSNS Comment No. 6

II.A.2.(d)(vi) Fifth bullet, sub paragraph 3: This paragraph restates the requirements of 40 CFR 63.465(b). 40 CFR 63.465(b) directs the vapor degreaser operator to remove this solid waste monthly, prior to calculating monthly emissions. All solvent must be removed from the degreaser in order to clean the solid waste out of the bottom of the degreaser. The batch vapor degreasers used by the Shipyard generate small volumes (less than 1 pint per month) of sludge and soil in the cleaning of parts and components. Monthly cleaning is otherwise unnecessary and results in significant evaporative loss of trichloroethyene. Minimal volume of solids accumulate due to work practice and quality controls that ensure the solvent is maintained at a high level of cleanliness. The solvent is typically reused for six months until replacement is required. The Shipyard requests that vapor degreaser monitoring plan in the draft permit be revised to allow for determining the volume of the solid waste in the degreaser every three months. Since the emission limit for the halogenated solvent NESHAP is expressed as a 3-month rolling average, emissions calculated using equation (2) of 40 CFR 63.465 will closely match the emissions calculated if the unit was to be cleaned out monthly.

Puget Sound Clean Air Agency Analysis of Comment

40 CFR 63.465 is a Test Method. The Clean Air Agency's delegation of Subpart T specifically states that only EPA can change the Test Method. The Agency would be happy to pass such a request through to EPA. Then if EPA approves a change in the Test Method we could incorporate the change in the Operating Permit. This would be considered and invoiced as a minor change as per PS Clean Air Regulation I, Section 7.07(c)(2).

Puget Sound Clean Air Agency Response

No changes made to the Operating Permit.

PSNS Comment No. 7

II.A.2.(f) (ii) Monitoring and recordkeeping for compliance option 1: The Shipyard requests that records of the volume of marine coatings delivered to the Shipyard, not volume of coatings used, be required to demonstrate compliance with 63.788(b)(3)(i). This monitoring approach is equally protective of the environment and will result in significant savings of man-hours expended tracking individual containers of coatings to their actual end use. The volume of each formulation of coating would be reported as being used in the calendar month the compliance determination was made for that coating, e.g. upon arrival at the Shipyard. Since compliance with the emission standard under compliance option 1 is not based on the volume of coatings applied, this proposed monitoring and recordkeeping approach will not change the manner in which compliance status is determined for a given reporting period. The Shipyard would still be required to track the volume of coatings applied under compliance options 2 and 3, as the actual volume applied is necessary for determining compliance with the emission standard. This recordkeeping approach is accepted by US EPA as it is found in many of the newer surface coating NESHAPs recently proposed. For example, 40 CFR 63.4530(d) states "If you are using the compliant material option for all coatings at the source, you may maintain purchase records for each material used rather than a record of the volume used."

Puget Sound Clean Air Agency Analysis of Comment

Since the shipyard only delivers materials to the job sites on an as needed basis and since the job sites do not have storage capacity for more than what is needed for the job at hand, it is sufficient to consider the coatings "used" when the job site "purchases" the coatings from the station warehouse.

Puget Sound Clean Air Agency Response

Wording of the requirement changed to: "For marine coatings to which no thinning solvent other than water will be added, and for which batch testing is not conducted, the name and coating category; the applicable VOHAP limit; the VOC content certification; and the volume of each coating formulation dispensed from the warehouse each month"

PSNS Comment No. 8

II.A.2.(h) Delete references to 40 CFR 60, Puget Sound Naval Shipyard operates no equipment regulated by New Source Performance Standards (NSPS).

Puget Sound Clean Air Agency Analysis of Comment

Since the first draft of this permit, the equipment that 40 CFR 60 applied to has been transferred to Naval Station Bremerton. If PSNS should again install equipment requiring a performance test under 40 CFR 60 then it will be referenced as a condition in the Order of Approval.

Puget Sound Clean Air Agency Response

References to 40 CFR 60 removed.

PSNS Comment No. 9

II.A.2.(h) last sentence: "Additionally a performance source test is required after modifications either to equipment or process method covered under a prior performance test." Request that "modifications" be described as "physical changes that increase emissions to the environment"; or, since 63.7 applies only to shipyard equipment covered by Part 63, Subpart N, then specifically state the conditions where Subpart N requires an additional performance source test.

Puget Sound Clean Air Agency Analysis of Comment

Any modification of the ductwork or exhaust flow may change normal pressure drop values, velocity pressures or air movement through the control devices. If these changes move a parameter outside the range established during the original source testing, a new performance test is needed to prove that the units are still in compliance while establishing a new range of compliant parameter ranges.

Puget Sound Clean Air Agency Response

Changes made to wording of II.A.2(h) to address concerns by adding: "if such modification either has the potential to increase emissions or changes the range of any compliance monitoring parameter beyond that established during the original source test."

PSNS Comment No. 10

IV.B. Requirement to submit a Notice of Construction should exclude replacement or substantial alteration of emission control technology when otherwise exempt from NOC submittal by Reg. I, Section 6.03.

Puget Sound Clean Air Agency Analysis of Comment

In addition to noting that there are overlapping requirements which may provide some exemptions from Notice of Construction review, the comment highlighted the fact that some applicable requirement citations had been omitted from this requirement and Section IV.A.

Puget Sound Clean Air Agency Response

Changes made to address concern. The following words were added: "except as provided in Puget Sound Clean Air Agency Regulation I, Section 6.03". Additional regulatory authority citations were added to requirements identified in Section IV.A and IV.B of the permit.

PSNS Comment No. 11

IV.C. Should include language excluding dry removal and dry waste handling requirements for demolition/renovation activities which are conducted under an approved alternate control measure as per Reg. III, Article 4.

Puget Sound Clean Air Agency Response

Changes made to address concern. The following words were added: "PSNS shall comply with Puget Sound Clean Air Agency Regulation III, Article 4, and any Clean Air Agency approved alternate control measures, when conducting any asbestos project, renovation or demolition activities at the facility."

PSNS Comment No. 12

V.K. Include language referring to applicable security restrictions in certain areas. At a minimum, preface sections V.K.3. and V.K.4 with the statement "subject to applicable national security regulations,".

Puget Sound Clean Air Agency Analysis of Comment

WAC 173-401-630(2) states:

Inspection and entry. Each permit shall contain inspection and entry requirements that require, that upon presentation of credentials and other documents as may be required by law, the permittee shall allow the permitting authority or an authorized representative to perform the following:

(a) Enter upon the permittee's premises where a chapter 401 source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;

(c) Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and

(d) As authorized by WAC 173-400-105 and the FCAA, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

The language in this regulation is a part of the federally approved Air Operating Permit regulation for the State of Washington and was required language for the EPA to approve the air operating permit programs in this state. The Title V Air Operating Permit documents existing applicable requirements. It can not alter the requirements in any statute or regulation.

However, we recognize that PSNS does have national security concerns which can be brought up at the beginning of an inspection. PSNS has a right, and a duty, to refuse us entry into any area where there is a security concern and/or where an inspector does not have the proper security clearance to enter. What the Agency believes above citation means is that if we can not work things out during an inspection, then both the Agency and PSNS may exercise the full range of legal options to resolve the issue.

Puget Sound Clean Air Agency Response

No Changes Made

PSNS Comment No. 13

V.Q.3.d. Change in Information. This section needs to be clarified as it only applies to notifications required under 63.9(j). Reword paragraph similar to V.Q.5.F.

Puget Sound Clean Air Agency Response

Changes made to make V.Q.3.d wording the same as in V.Q.5.f.

PSNS Comment No. 14

VII. Permit shield as written does not extend to requirements under 40 CFR Part 61, Subpart I.

Puget Sound Clean Air Agency Response

Permit shield extended to include the Radioactive Air Emissions License.

PSNS Comment No. 15

Request that language concerning facility-wide inspections is clarified to make it clear that non-road and mobile sources, such as ship's stack emissions, are not within the scope of the air operating permit. There is no statutory authority for the air operating permit to regulate mobile source emissions.

Puget Sound Clean Air Agency Analysis of Comment

WAC 173-401 requires air operating permits to be issued to major sources of air pollution. PSNS is a major source by the rule definition [WAC 173-401-200(19), 10/17/02] and as a result, this operating permit issuance is being processed. The "major source" definition begins with the term "stationary source". A "stationary source" is defined in WAC 173-401-200(34) [10/17/02] and states that it means "any building, structure, facility, or installation that emits or may emit any air contaminant". Furthermore, the definition of "emission unit" [WAC 173-401-200(19), 10/17/02] states that it "means any part of activity of an stationary source that emits or has the potential to emit any regulated air pollutant or any pollutant listed under section 112(b) of the FCAA". Even though emission units may not be specifically listed in the permit itself, it does not mean they are not subject to the Facility Wide Requirements identified in I.A of the permit. Some of the emission units you may be referring to may also be insignificant emission units (IEUs) under the permit, with other specific permit language to cover their compliant operation. IEU's are not exempt from any applicable requirement [see WAC 173-401-530(1), 10/17/02]. Categorically exempt IEUs include such things as "vehicle exhaust from auto maintenance and repair shops", "general vehicle maintenance including vehicle exhaust from repair facilities", and "fuel and exhaust emissions from vehicles in parking lots". The important clarification to be made in

response to this comment is that PSNS would need to establish why a specific operation or activity would not be considered an "emission unit" that is part of the "stationary source" that is the shipyard. This Agency does not consider the emissions from ships underway or moving under their own power to be a part of the "stationary source". However, emissions from ships which are at the shipyard for work may be subject to the Facility Wide Requirements and the recordkeeping may reflect a different level of effort IF the emission unit is an IEU.

Puget Sound Clean Air Agency Response

No Changes Made

PSNS Comment No. 16

Requirements for O&M plan and NOC required should be clarified for contractors and other leased or transient equipment. Maintaining O&M records on-site for five years is not reasonable for these types of equipment. Records generated prior to equipment arriving are not readily accessible. Recommend limiting scope of O&M records to those generated on-site. Recommend limiting required data retention to the period when the equipment is on-site.

Puget Sound Clean Air Agency Analysis of Comment

We agree that obtaining 5 years worth of data on a piece of equipment before allowing it onto the shipyard is unreasonable. It is reasonable however to collect copies of all documentation generated by the equipment while it is on site and to maintain those records for five years.

Puget Sound Clean Air Agency Response

The following change was made to Section II.A.2(a) Approval by the Puget Sound Clean Air Agency, via NOC/Order of Approval:

PSNS or its onsite contractors have presented the pertinent information…..

The following change was made to Section II.A.2(b) VOC Content Monitoring and Recordkeeping Procedure:

PSNS shalleinsure that it and its onsite contractors follow this VOC Content Monitoring and Recordkeeping Procedure

The following change was made to Section II.A.2(c) Documentation on File:

PSNS shall maintain its documents, and the documents its contractors generate while on site, in its files for at least five years from the generation date of the record, ….

The following change was made to Section II.A.2(d) Equipment Maintenance:

PSNS shall, at a minimum, ensure that it, or its onsite contractors, perform all of the following maintenance activities at the frequency specified below.

The following change was made to Section II.A.2(f) Ship Building and Ship Repair NESHAP Coating Monitoring and Recordkeeping Procedure:

PSNS shall maintain the following records on the Shipbuilding and Ship Repair NESHAP regulated coatings used by it and its contractors at the site.

The following change was made to Section II.A.2(g) Notice of Completion:

PSNS or its onsite contractors have submitted a Notice of Completion to the Puget Sound Clean Air Agency…

The following change was made to Section II.B. Operation and Maintenance (O&M) Plan Requirements:

For its stationary sources PSNS's O&M Plan will include procedures specifying how PSNS shall assure that it and its onsite contractors are in continuous compliance…

The following change was made to Section IV.A New Source Review:

PSNS shall ensure that PSNS and its on site contractors file notification and obtain the necessary approval from the Puget Sound Clean Air Agency before conducting any of the following:

2nd Set of Comments Received from PSNS on the Title V Air Operating Permit and Statement of Basis – Letter to Claude Williams from L.A. Cole, Director, Environment, Safety and Health Office at PSNS (April 29, 2003).

PSNS Comment No. 17

We request that the statement "Empty containers as defined *in* WAC 173-303-160 are exempt." be added to the end of Section II.A.1 (d) of the draft permit. The same statement is found in section II.A.2 (b) of the Air Operating Permit issued to Todd Pacific Shipyards Corporation by your Agency on February 4 of this year. The addition of the statement will help to clarify applicability and promote consistency between the Shipbuilding National Emission Standards for Hazardous Air Pollutants (NESHAP) and the Washington State dangerous waste regulations.

Puget Sound Clean Air Agency Response

Requested change made.

PSNS Comment No 18

On page 6 of the Statement of Basis discusses monitoring for compliance with the particulate emission standard, which is requirement I.A.2 of the draft permit. The Statement of Basis talks about using the reference test method, i.e. Washington Department of Ecology (WDOE) Method 5, to determine concentration when any visible emissions are noted. As the Statement of Basis indicates, visible emissions are not an indication of a particulate concentration exceedance as visible emissions occur at grain loading less than 0.05 grains per dry standard cubic foot (gr/dscf). Conducting WDOE Method 5 whenever visible emissions are present is an unreasonable expectation considering the types of emission units present at the Shipyard and the probability of emissions standard exceedances. Opacity monitoring and adherence to the Operation and Maintenance (O&M) plan is sufficient to ensure compliance with the grain-loading standard.

Puget Sound Clean Air Agency Analysis of Comment

Neither the operating permit monitoring method nor the SOB requires the immediate use of Method 5.

We agree that opacity monitoring and adherence to the O&M plan is sufficient to ensure compliance with the grain loading standard. If a visible emission is not seen then the unit is in compliance. If a visible emission is seen, PSNS can correct the problem as per the O&M plan until there are no visible emissions. The unit is still in compliance because the threshold for visible emissions is assumed to be less than 0.05 gr/dscf.

If a situation occurs where no matter what corrective action is taken there is still a visible emission, then we want Puget Sound Clean Air Agency source test Method 5 as a third tool to use. Method 5 can measure and confirm that the particulate loading standard is being met despite the visible emission. Method 5 is an alternate compliance tool that PSNS should not throw away. WDOE references for non-EPA source test methods in the SOB are incorrect.

Puget Sound Clean Air Agency Response

References to WDOE Test Method 5 in SOB changed to Puget Sound Clean Air Method 5. References to WDOE Method 9A changed to Ecology Method 9A.

PSNS Comment No. 19

On page 8 of the Statement of Basis the second paragraph states that the New Source Performance Standards (NSPS) of 40 CFR 60 apply to Naval Station Bremerton. This is not correct. Construction of the steam utilities plant on Naval Station Bremerton commenced prior to NSPS applicability. Reference to NSPS applicability at NSB should be deleted from the Statement of Basis.

Puget Sound Clean Air Agency Response

The following replacement phrase was substituted: "While the new source performance standards of 40 CFR part 60 do not apply to PSNS several definitions from Subpart Dc are in common use in the oil supply industry and are used below"

PSNS Comment No. 20

On page 9 of the Statement of Basis the second paragraph states that the Shipyard's dry docks are 80 feet deep. The depth of the Shipyard's six dry docks varies from approximately 35 to 60 feet.

Puget Sound Clean Air Agency Response

That sentence was changed to state: "These emissions are partially contained by the 35 to 60 foot depth of the sidewalls of the six dry docks."

PSNS Comment No. 21

On page 10 of the Statement of Basis the fifth paragraph states that the monitoring method specifies monthly inspections to monitor for fugitive dust. The monitoring method actually specifies quarterly inspections, as identified elsewhere on page 10 of the Statement of Basis and in the draft Air Operating Permit.

Puget Sound Clean Air Agency Response

"Monthly" changed to "Quarterly" to be consistent with the paragraph above it in the SOB

PSNS Comment No. 22

On page 24 of the Statement of Basis, the first paragraph of the obsolete requirements section erroneously refers to Puget Sound Naval Shipyard as Naval Station Bremerton.

Puget Sound Clean Air Agency Response

Error corrected.

Written Public Comments on the PSNS Title V Air Operating Permit

Public Comment No. 1

Email from Henrik Langhjelm – email is langhjelm1@yahoo.com
2403 Jenner Avenue
Bremerton, WA 98310-4520

From: Henrik Langhjelm [langhjelm1@yahoo.com]

Sent: Tuesday, December 31, 2002 11 :40 AM

To: ClaudeW@pscleanair.org

Subject: PSNS Title V Permit

Claude

Outstanding!
I saw the notification in the paper, I am pleased.

Due to the lack of a computer I am forced to use public resources for my e-mail correspondences for the moment. As such, I am wondering if you could be so kind as to send me a hard copy of the current Title V draft for PSNS, a hard copy of their latest air emission report (the one used to substantiate their request for the permit) and a copy of their 2001 and 2002 reports, also a copy of whatever document that was submitted to the PSCAA to generate the draft permit. Any other input or pointers you have in responding to your agency on this issue would also be helpful. Additionally, any information on how the EPA gets involved, or their roll overall would also help. I will in fact be submitting a response to your agency regarding this permit.

Well done Claude!!!!!!!

Hank Langhjelm
2403 Jenner Avenue
Bremerton, W A 98310-4520
(360) 377-2860

Puget Sound Clean Air Agency Response

Comment noted – no direct comments on operating permit requirements or provisions.

No changes made.

Public Comment No. 2

Email from Janet Ravenkampt – email is coolladytoo@yahoo.com
1365 E. Lake Drive
Bremerton, WA 98312

From: Janet [coolladytoo@yahoo.com]

Sent: Monday, January 06, 2003 4:22 PM

To: claudew@pscleanair.org

Subject: my concern about clean air

Mr. Williams

I have a very good concern about PSNS, the reason why is that my late husband used to work there. I feel that his death is believed to have been the result of radiation exposure while he was on other submarines and him working at the shipyard through chronic toxic exposure to airborne emissions. At time his lead counts was 11. and his cadman was very high too.

Thank you

Janet

Puget Sound Clean Air Agency Response

Comment noted – no direct comments on operating permit requirements or provisions.

No changes made.

Public Comment No. 3

Letter Received from Jane M. Allison January 14, 2003
2169 NE John Carlson Rd
Bremerton, WA 98311

JANUARY 11TH 2003

DEAR MR CLAUDE WILLIAMS,

MY NAME IS JANE ALLISON AND IM RESPONDING TO YOU ABOUT THE VOLATILE ORGANIC COMPOUNDS AND HAZARDOUS AIR POL-LUTANTS THAT PUGET SOUND NAVAL SHIPYARD ARD IS RELEASING INTO THE AIR OUTSIDE THE SHIPYARD AS WELL AS INSIDE.
MY PARENTS HAVE LIVED ABOUT 6 BLOCKS FROM THE SHIPYARD ARD FOR THE LAST 55YRS, AND IM WORRIED ABOUT THEIR EXPOSURE AND I ALSO WORK THERE ALONG WITH MY TWO BROTHERS AND HAVE WORKED THERE FOR THE PAST 24YRS. I HAVE KNOWN A FEW PEOPLE THAT LIVED CLOSE BY THE SHIPYARD ARD AND WORKED IN THE SHIPYARD ARD THAT HAVE DIED OF CANCER. 1M NOT SAYING IT WAS DUE TO THE SHIPYARD BUT I WOULD LIKE TO KNOW THE AFFECT OF THE TOXINS BEING RELEASED INTO THE AIR.
IM ALL FOR CALLING A PUBLIC HEARING AND IM SURE A LOT OF PEOPLE WOULD WANT THAT BUT A LOT OF PEOPLE ARE AFRAID TO ADDRESS THIS ISSUE IN FEAR OF RETAILIATION.

SINCERELY,
JANE M ALLISON

JANE ALLISON FAMILY
2169 NE JOHN CARLSON RD
BREMERTON W A 98311
HM 360-698-9018
CELL 509-8437

Puget Sound Clean Air Agency Response

Comment noted – no direct comments on operating permit requirements or provisions.

No changes made. A public hearing on the operating permit was held on March 27, 2003.

Comments Received at the Public Hearing

Thursday, March 27, 2003 at 7:00 PM at the Central Library of the Kitsap Regional Library System, located at 1301 Sylvan Way, Bremerton, WA.

Attendees:
Henrik Langhjelm of Bremerton, WA
Janet and Heather RavenKamp of Bremerton, WA
J. R. Dixon of Bremerton, WA
L. Hartman of Bremerton, WA
Jane Allison of Bremerton, WA

The below comments were paraphrased by Claude Williams, from a tape recording made at the hearing.

7:00 PM
Introduction by Jim Nolan, Hearing Officer and Director – Compliance for the Puget Sound Clean Air Agency. Mr. Nolan explained why there was a public hearing and why the public comment period was extended. The original public comment period was started on December 31, 2002. The public comment period was extended to April 30, 2003 for comments, particularly for the new draft radionuclide license. This draft radionuclide license was posted to the Agency website on March 26, 2003. The purpose of this hearing was to take public testimony on either the permit or the license. Written public comments would be accepted through April 30th.

2nd Introduction was made by Richard Stone, Air Program Mgr for Puget Sound Naval Shipyard. Mr. Stone stated that the Public comment period was extended so that additional issues could be resolved with the Washington Department of Health. Those issues have since been worked out and the draft Radionuclide License was the result.

Public Comment No. 4

Heather Ravenkamp – Discussed the death of her father and wanted to know how many others would die at the shipyard.

Puget Sound Clean Air Agency Response

Comment noted – no direct comments on operating permit requirements or provisions.

No changes made.

Public Comment No. 5

Henrik Langhjelm – Stated that in 2002 he sent the Agency a detailed complaint discussing many different concerns. He was quite pleased however, with the shipyards efforts of late in trying to minimize their air emissions. Much of that has been in response to inspections by OSHA during the last one and a half years. OSHA's concerns were about worker exposure. The resulting citations are available on the OSHA website. The shipyard has been doing ship breaking activities since the early 1980's. The switchover from general overhaul work to ship

breaking work as the primary activity was continued through the 1990's. Ship breaking is a very nasty business and there is a fine balance between controlling the processes that generate the air emissions vs the cost of cutting up these submarines. Mr. Langhjelm believes that the Clean Air Agency has not had unfettered access to the facility and that our inspections and stationary monitoring may not be noting or sensing the torch cutting of rubbers and different seals that are emitting chromium, arsenic, cadmium, beryllium, zinc, lead and so on. He feels that the Agency monitors may not be fixed in a good location to sense these emissions. His complaint last year also discussed the switch over from doing cutting from daylight to night time hours. A predominant number of labor hours from welders and those removing certain materials were moved to the swing shift. Meanwhile the day shift was being monitored by OSHA. His discussions with OSHA addressed his concerns. OSHA later confirmed that such a shift to evening hours did occur. For the same reason he does not believe that the Clean Air Agency is getting a realistic picture of what is coming out of the shipyard. In regards to the Ohio Study used to establish estimate emissions from steel cutting, Mr. Langhjelm feels that as he discussed in his complaint that the method used was unrealistic because the air was blown horizontally across the work field to the test monitors which he believes were set up wrong. He therefore feels then that the emissions from the submarine cutting operations are not represented using the emission factors from that study. In addition he believes that cutting still occurs through paints, some of which are PCB contaminated, rubber compounds, oils and various fluids. The application makes mention that the dry docks are 80 feet deep. Mr. Langhjelm stated that there are no dry docks that are 80 feet deep at PSNS. The deepest is 64 or 65 feet deep. Mr. Langhjelm stated that the shipyard maintains that most contaminates fall out 10-20 feet from the work area, but that the numbers of workers that are coming down with diseases and illnesses like cancer are significant. [He stated that he also believes that a lot of effort is being made by the compensation board to circumvent the rights of these individuals.] Mr. Langhjelm does not believe that the outside community has been properly informed of what they are being exposed to. Mr. Langhjelm is disturbed that the shipyard is allowed to self police under the permit. He wonders if it is due to a lack of Agency resources or a matter of some unspoken trust that is subjective. He thinks that the shipyard inspecting itself and maintaining its own inspection records is like the fox guarding the henhouse. Mr. Langhjelm recommends that instead there should be routine unfettered inspections and additional monitoring by the Clean Air Agency. Mr. Langhjelm noted that the base has been divided into two bases and thinks that the Bldg 513 metal cutting emissions are not being included in the emissions reported by PSNS. In regards to Mr. Ravenkamp, Mr. Langhjelm stated that he is a prime example of someone who was exposed to contaminants due to his ship breaking activities as a welder and that his exposure may have been responsible for his death of Leukemia. He stated that similar emissions as those the workers are being exposed to may be getting over the fence. In 1986 in dry dock three there were several submarine conning towers, called sails, which twenty individuals were cutting up. These sections contained tiles impregnated with lead, or organitin (an anti-fouling coating containing tributyl tins, cupreous oxide, coal tar and herbicides). These 20 individuals were among the workers that he later noted were coming down with illnesses. The smoke from these jobs was at times staying in the dry docks, sometimes they were propelled aloft and over the fence.

However, the building 368 off hull burning facility with its HEPA filter exhaust is a remarkable achievement. But not all hull cutting is taking place in this facility. There is 30,000 lineal feet of torch cutting that is performed per hull before the pieces are brought into building 368. Most of the cutting then is still done outdoors.

Mr. Langhjelm believes that if last year the Agency had taken wipe sampling in nearby buildings across the fence from the shipyard we would have found evidence that these toxics he was discussing were leaving the shipyard. Mr. Langhjelm suggests that a third party with government funding should be putting monitoring balloons in the air and random monitoring alone the fence line. He is not finding the cadmium, chromium, or the beryllium from ship breaking in the PSNS emission reports of 2001 to 2002.

Mr. Langhjelm believes that because of the acids present in some of the shipyard's emissions that some properties outside of the shipyard may have degraded faster than normal. The statistics speak for themselves. There are an alarming number of diseases and illnesses in the City of Bremerton. The shipyard is very important to Bremerton and would leave a black hole if it left. The community and the workers have a right to know what they are being exposed to.

Mr. Langhjelm recommended that the Clean Air Agency needs to improve its communication methods with the public more so that the public becomes more aware that the Agency exists. Then in the future more people would show up at these meetings with more questions. Also the shipyard should be doing better hazard communication with its workers and neighbors and should fix any problems it creates, thereby creating more trust.

Mr. Langhjelm believes that Claude Williams and Richard Stone did a good job on the production of this permit

Mr. Langhjelm stated that the shipyard has done a miraculous job of improvement so far and that he believes it will continue to do better in the future. The new shipyard Captain Orzalli is a very responsible person, and from reports Mr. Langhjelm has received, he has he thinks the Captain is taking things very seriously. Mr. Langhjelm is pleased that a turnaround has happened, though part of that turnaround is due to the winding down of the submarine recycling program.

Puget Sound Clean Air Agency Response

Response to Mr. Langhjelm's Comments - Self monitoring and reporting is a corner stone of the design of the Title V Air Operating Permit System nationwide. Agency staff can not be at the facility at all times. But when our staff is there we can audit the activity and monitoring logs required by the permit, and insure that the facility Operations and Maintenance plan is working. The permit determines what will be monitored, recorded and reported. The onsite inspections by the Agency help determine if PSNS is following the requirements of the Title V permit and supplement the record provided by PSNS reports submitted in accordance with the permit. Not only can the shipyard be cited for excess emissions, but it can be cited for not following the terms of their permit, even if no excess emissions result from deviations from the terms of the permit. The permit for PSNS was built around the accepted EPA template for how the program was to be administered by our Agency.

Mr. Langhjelm's complaint of 2002 and the work done by OSHA were mostly concerned with worker exposure at the shipyard. However, the Agency still appreciated this

information which combined with his testimony at this hearing will influence Agency planning on future inspections at PSNS.

Ship breaking operations at Bldg 513 have ceased. Therefore all emissions related to ship breaking now occur only at PSNS and not at Naval Station Bremerton.

Public Comment No. 6

Janet Ravenkamp – Discussed the death of her husband John Ravenkamp. She stated that according to PSNS the Navy did not kill her husband. She then presented pictures of John Ravenkamp.

Puget Sound Clean Air Agency Response

Comment noted – no direct comments on operating permit requirements or provisions.

No changes made.

Public Comment No. 7

Heather Ravenkamp – The family has been tested. She and her mom have elevated lead levels. Her father never knew what he was being exposed to but that later they found out from his blood samples that mercury levels were three times higher than they should be and that his cadmium and lead levels were also very high.

Puget Sound Clean Air Agency Response

Comment noted – no direct comments on operating permit requirements or provisions.

No changes made.

There were no further comments and the hearing was closed at 7:35.

Minor Modification 1

PSNS submitted an application for a minor modification to the permit on March 25, 2004. The minor modification application was deemed complete on March 26, 2004 and PSNS was authorized to make the requested change immediately in accordance with WAC 173-401-725(f). The original permit included a provision in Section IV.D.2 which indicated that outdoor spray coating could not be performed unless it was approved by a Notice of Construction Order of Approval (per Puget Sound Clean Air Agency Regulation I, Section 9.16, 7/8/99, *State/Puget Sound Clean Air enforceable only*). On the date of permit issuance (December 31, 2003), this regulation had been superceded and the current version should have been included as the enforceable general requirement for outdoor spray coating. The current regulation (Puget Sound Clean Air Agency Regulation I, Section 9.16, 7/12/01, *State/Puget Sound Clean Air enforceable only*) does not require pre-existing outdoor spray coating operations to obtain an Order of Approval. This version of the regulation was in effect at the time of the permit issuance and should have been the general requirement cited.

Minor Modification 1 Public Comments and Responses

No comments were received during the comment period.

Administrative Amendment 1

On August 10, 2015 the Agency received a letter requesting a change in the name of the responsible official to Howard B. Markle. The changes were made, with the contact phone number updated as well.