



DEPARTMENT OF THE NAVY

PUGET SOUND NAVAL SHIPYARD
AND INTERMEDIATE MAINTENANCE FACILITY
1400 FARRAGUT AVENUE STOP 2090
BREMERTON WASHINGTON 98314-2090

IN REPLY REFER TO:

5090

Ser 106.32/293

22 NOV 2019

Ms. Tricia Miller
Water Quality Permit Coordinator
Department of Ecology
Northwest Regional Office
3190 160th Avenue SE
Bellevue, WA 98008-5452

Dear Ms. Miller:

Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS & IMF) is hereby providing our comments on the State Waste Discharge Permit and fact sheet provided to the public on October 25, 2019. Our main comments are:

Concerning the requirement in section S5.A to “minimize to the maximum extent possible” the “use of marine (salt) water”, the draft permit and fact sheet do not establish the basis for this prohibition by identifying how these discharges result in “pass through” or “interference” as defined by WAC 173-216-030.

Concerning the requirements in sections S3.F.2.a (immediate reporting of domestic wastewater spills), S3.F.2.b.5 (24-hour reporting of overflow prior to treatment works), S3.F.2.c.5 (5-day written report of overflow prior to treatment works), they are duplications of requirements in our National Pollutant Discharge Elimination System permit and spill prevention and contingency programs.

All of our comments, including the ones discussed above, are included in the enclosures for your review.

If you have any questions, please contact Mr. Duy Pham, State Waste Discharge Permit Program Manager (Code 106.32), at (360) 476-0122.

Sincerely,

C. S. MATHESON
Head, Environmental Division
Environment, Safety, and
Health Office
By direction of the Commander

Enclosures: (1) PSNS&IMF's Comments on Draft State Waste Discharge Permit ST0007374
(2) PSNS&IMF's Comments on Draft State Waste Discharge Permit Fact Sheet

**PSNS&IMF's Comments on Draft State Waste Discharge
Permit No. ST-7374 of October 2019**

Comment Number	Permit Paragraph/Page Number	Comment
1	Section S1, Table 1, Sample Points 071 – 075, Aluminum Passivation	PSNS & IMF requests these sample points be deleted. We have decided to eliminate this aluminum passivation process. Aluminum passivation will now be done with dry deburring process, Sample Point 077.
2	Section S1, Table 1, Sample Point 077, Aluminum Sheet Metal Deburring	PSNS & IMF requests the flow-monitoring requirement be deleted. The aluminum sheet metal deburring process will only discharge batches of 500 gallons each once every two weeks. If we are required to report daily maximum flow we would like the Sample Type to be "Estimate" since the maximum flow will be no higher than 800 gallons a day and we only discharge infrequently at the rate of once every two weeks.
3	Section S1, Table 1, Sample Point 105	Please change "Lift Station Number 1 (West End)" to "Lift Station WB-3 (West End)". This sample point is the combined industrial and domestic wastewater discharge from the west end of Naval Base (NAVBASE) Kitsap, Bremerton to the City of Bremerton's wastewater collection system.
4	Section S1, Table 1, Sample Point 106	Please change "Lift Station Number 9 (1 st Street Station)" to "Lift Station Number 9". This sample point is the combined industrial and domestic wastewater discharge from the east end of NAVBASE Kitsap, Bremerton to the City of Bremerton's wastewater collection system. The sample point is at Lift Station Number 9, which is a NAVBASE Kitsap, Bremerton lift station. First Street Station is a City of Bremerton monitoring vault outside our fence on the east end, which has other wastewaters outside our fence in addition to our wastewater.
5	Section S1, Table 1, Sample Points 105 and 106, Lift Station WB-3 and Lift Station 9	PSNS & IMF requests the deletion of sampling requirement for molybdenum at Sample Points 105 and 106, Lift Station WB-3 and Lift Station 9. Our industrial processes do not discharge any significant amount of molybdenum. The City of Bremerton's local limit for molybdenum is 1 mg/L. The last four batches of treated effluent from our Industrial Wastewater Pretreatment Facility, Sample Point 001, ranged from 0.007 to 0.021 mg/L molybdenum. The last six compliance samples from the treated effluent from our Oily Water Treatment Systems, Sample Points 003 to 009, ranged from 0.005 to 0.033 mg/L molybdenum. The last six compliance samples from the Dry Dock Process Water Collection Systems, Sample Points 010 to 015, ranged from 0.004 to 0.013 mg/L molybdenum. Lift Station 9, Sample

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		Point 106, where the molybdenum limit is imposed, had molybdenum average and maximum concentration of 0.003 mg/L and 0.005 mg/L, respectively, during the last 12 months. Lift Station WB-3, Sample Point 105, where the molybdenum limit is imposed, had molybdenum average and maximum concentration of 0.005 mg/L and 0.021 mg/L, respectively, during the last 12 months. The highest level of molybdenum at the lift stations is only at 2 percent of the local limit. Since molybdenum is not present at significant amount in our industrial discharges and in the combined industrial and domestic wastewater at the lift stations, we request that the molybdenum-monitoring requirement be deleted.
6	Section S3.A.7	Should "S2" be "S1"?
7	Section S3.F.2.a	PSNS & IMF requests that the immediate reporting requirement in section S3.F.2.a only apply to noncompliance that may endanger health or the environment as applied to discharges to the sanitary sewer. PSNS & IMF is already subject to requirements to immediately report collection system overflows that discharge to marine waters or areas open to public access, collection system overflows that discharge to fresh water bodies, and plant bypasses discharging to marine waters in our National Pollutant Discharge Elimination System (NPDES) permit and spill prevention and contingency programs. Concerning the list of agencies to which we must report we have added the two agencies not yet on our list for reporting unauthorized discharges to the bay.
8	Section S3.F.2.b.5	PSNS & IMF requests that this requirement to report overflow of discharges to our surface water be deleted. This is a duplication of requirement in our NPDES permit. Any unauthorized discharges to surface water at our facility is regulated under our NPDES permit.
9	Section S3.F.2.c.5	This section requires submittal of a written report for noncompliance, including overflow to surface water. Similar to the comment above we request that this requirement be deleted. Discharges to surface water at our facility are already regulated under our NPDES permit.

10	Section S4.C.14	<p>PSNS & IMF believes that we do not discharge to the Bremerton's East Plant, which uses UV disinfection. Therefore, should this requirement of section S4.C.14 be deleted?</p>
11	Section S5.A	<p>Concerning the requirement to minimize to the maximum extent possible usage of saltwater for sources that discharge to the City of Bremerton sewer, including using potable water on docked vessels that have the capability to connect to potable water for any water use that is discharged to sanitary sewer, PSNS & IMF is currently utilizing potable water to supply sanitary sewer needs on these vessels "to the maximum extent possible" within the infrastructure limits of the shipyard systems.</p> <p>First, PSNS & IMF understands City of Bremerton has expressed concern that saltwater may potentially affect the City of Bremerton Wastewater Treatment Plant operations. PSNS & IMF is implementing measures to reduce usage of saltwater where possible. For example, ship-to shore hose connections for pumping sewage from ships to our sewer system used to have constant saltwater flow for freeze protection during the winter. We have started to use heat tapes and insulation for these hoses. In addition, tank level indicator testing that used to be done with saltwater has been switched to potable water.</p> <p>Second, the current wording in section S5.A lacks clarity as to what is required. What is "possible" in terms of reducing saltwater usage of docked vessels is not limited to shipyard infrastructure; it must also consider vessel infrastructure and the Navy mission impacts. Navy vessels differ in their configurations and requirements, but normally draw saltwater from surrounding waters for sanitary facility flushing. While in a drydock a vessel must be connected to shore systems. This is not possible for all vessels, as some require larger amounts of water and higher pressure than can be supplied by existing NAVBASE Kitsap, Bremerton potable water infrastructure. For example, aircraft carriers require 12,000 gallons per minute at 125 pounds per square inch when in a dry dock. This is not possible at Bremerton, as significant NAVBASE Kitsap, Bremerton upgrades would be needed. PSNS & IMF is currently utilizing potable water to supply sanitary sewer needs of docked vessels "to the maximum extent possible" within these limitations.</p>

		<p>Third, the technical basis for prohibiting “use of marine (saltwater) for sources” is not clear in the draft permit. The Fact Sheet does not include information that the City of Bremerton has experienced pass through or interference as defined in WAC 173-216-030 as a result of this “pollutant”. The treatment plant did experience two violations in 2015 but those were later determined to be caused by “possible unknown toxics in influent affecting BOD5 analysis”, as cited in the City of Bremerton NPDES permit fact sheet. This resulted in the City of Bremerton permit monitoring being changed to a statistically equivalent CBOD value as allowed in WAC 173-221-050.</p> <p>In conclusion, the current requirement on saltwater in section S5.A should be deleted as PSNS & IMF is already reducing use of saltwater sources “to the maximum extent possible” within the infrastructure limits of the shipyard (including vessel) systems and the PSNS & IMF discharges have not been shown to be the cause of pass through or interference as defined in WAC 173-216-030.</p>
12	Section S9.1.g	The word “discharged” should be deleted.
13	Section S11.B.7	Should “description of any unauthorized discharges which occurred during the 36-month period preceding the effective date of this permit” be changed to “description of any unauthorized discharges which occurred during the 36-month period preceding the date the plan is updated”?
14	Section S15	The purpose of this section is to determine whether the discharges from the cooling towers are significant sources of molybdenum, copper, and zinc. Concerning the presence of molybdenum in our wastewater, please see comment #5 on molybdenum limit at the lift stations. Concerning whether discharges from cooling towers are significant sources of copper and zinc, during the last permit cycle we sampled cooling towers from 9 buildings, even though only one out of 11 buildings needed to be sampled due to discharges exceeding 5,000 gallons per day. PSNS & IMF decided to sample even those cooling towers with daily flow of less than 5,000 gallons per day to have a better understanding of whether the discharges from cooling towers are significant sources of copper and zinc. Copper ranged from 0.0031 to 0.8 mg/L.

		<p>Zinc ranged from 0.019 to 0.79 mg/L. Building 943 cooling tower was the only one with discharges greater than 5,000 gallons per day. Its copper and zinc concentrations were 0.095 and 0.038 mg/L, respectively. Since there was only one out of 11 buildings with cooling towers with flow greater than 5,000 gallons per day and copper and zinc levels in 9 building cooling towers were all below copper and zinc discharge limits, these discharges are not significant sources of copper and zinc, in comparison to higher flow discharges from our dry dock process water collection systems or oily water treatment systems. In addition, NAVBASE Kitsap, Bangor's permit includes many cooling tower discharges with four at flow of 5,000 gallons per day with no sampling requirement. In summary, our sampling results of cooling tower discharges during the last permit and the concentrations of molybdenum in our wastewaters as provided in comment #5 show that this requirement is not needed. Therefore, PSNS & IMF requests that this requirement be deleted.</p>
15	Appendix B, Ecology Discharge Point No. 45	Please change the name of the process from "Air Pump Washing Water" to "Air Particulate Detector Components Washing Water".
16	Appendix B, New Process	Please add the new process as described in the comments to the fact sheet.

PSNS&IMF's Comments on Draft SWDP Fact Sheet of October 2019

Comment Number	Fact Sheet Paragraph/Page Number	Comment
1	Page 13, Cyanide Oxidation by Means of Alkaline Chlorination	In the last sentence of this section, please delete the reference to the 5,000-gallon tanks. Cyanide reduction process cannot be performed in the 5,000-gallon tanks.
2	Page 14, Final pH Control Tank	The Final pH Control Tank is not being used as described and is not currently being used. During the metal precipitation treatment process, pH of the wastewater after treatment is already within the normal range of pH for discharge and is therefore not required to be adjusted in this Final pH Control Tank.
3	Page 16, Sludge Storage	The period between "944" and "The" should be a comma. Please change "45/90-day sludge accumulation area" to "45/90-day Accumulation Area"
4	Page 17, Treatment Technology	For the last sentence on this page please add to the end of the sentence "or other adsorbent resins capable of removing copper."
5	Page 21, Painting Overspray Water	For this bullet please change "Painting Overspray Water" to "Painting Overspray Contaminated Water". Change "this source of water" to "paint overspray". These changes should make it more clear this is about water on the dry dock floor that is contaminated with paint overspray.
6	Page 21, PWCS – Treatment of Wastewater	Please change "Process Wastewater Collection System" to "Process Water Collection System".
7	Page 35, Building 431 – Shop 67 – Air Pump Washing Water	Please change the process name from "Air Pump Washing Water" to "Air Particulate Detector Components Washing Water". The frequency of discharge is not described in the fact sheet. However, we would like to note that it will be discharged about 100 times a year. The maximum daily rate of discharge is still 5 gallons per day.
8	Page 42, Building 506 – Dental Wastewater	"DNRA" should be "DRNA".
9	Pages 44 to 46, Aluminum Passivation Process	PSNS & IMF has decided to eliminate this aluminum passivation process. Please delete information associated with waste streams 17-857-002, 17-857-004, 17-857-006, 17-857-007, and 17-857-008.
10	Page 46, Table 20	Zinc maximum concentration should not be lower than average concentration.

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11	Page 49, Building 900 – Steam Plant	The first sentence is unclear as written. We don't have a wastewater treatment plant at the Steam Plant anymore. The only wastewater being discharged to surface water under our NPDES permit is the reject water from the Reverse Osmosis system that is used for making boiler feed water.
12	Page 51, Building 912 – Steam Utility Plant	In the second paragraph "coalesching" should be "coalescing".
13	Page 99, Building 873 (Plating Shop)	There is an extra quotation mark after "873-13".
14	New Process	<p>Please add the following description for a new process that will start about six months from now.</p> <p><u>Pier 6 – Shop 38 – Heat Exchanger Hydrolancing Training (38-Pier 6-001)</u></p> <p>Freshwater is used to hydrolance new stainless steel heat exchanger tubing for training purposes. Since it's brand new stainless steel tubing, the resultant hydrolance water is not expected to contain any metals. There will be about 30 days of training per year. The average daily discharge is around 1,800 gallons. The maximum daily discharge is estimated to be 2,700 gallons.</p>
15	Pages 69 and 70, Water Use and Sewer Use	<p>The Fact Sheet in this section contains the graphs of Naval Base (NAVBASE) Kitsap, Bremerton water use and sewer use. These graphs show that annual water use had a sharp decline after 2012 and sewer use increased from 2010 onwards.</p> <p>1) There is an error in the graph titled "Puget Sound Naval Shipyard Annual Water and Sewer Use" on page 70. It shows a spike in wastewater usage in 2015, going from an average of around 0.67 MGD for 2014 to 1.2 MGD for 2015. That spike is due to a billing error by the City, the actual wastewater usage in 2015 is about 0.68 MGD, virtually the same usage as the year before. According to sewer billing data from the City, NAVBASE Kitsap, Bremerton's annual sewer usage from 2008 to 2018 ranges from 0.59 (2010) to 0.75 MGD (2012), with an average of 0.65 MGD. Correcting the 2015 value is important as the paragraph proceeding this table states that "The plot shows that sewer</p>

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		<p>use at PSNS increased from 2010 onwards.” The corrected plot will not show an upward trend from 2010 onwards.</p> <p>2) Concerning water use reduction, NAVBASE Kitsap, Bremerton has implemented water conservation projects in the past few years to decrease water usage; such as the conversion to low-flow fixtures listed in the Fact Sheet. However, the largest reductions to the use of potable water have come from changes to freeze protection methods (temperature control automatic freeze protection) on piers and dry docks. Prior to these changes in 2011, manual freshwater freeze protection bleed valves used up to 5 gallons per minute (gpm) per connection; at 300 connections up to a possible 2.16 million gallons per day could be used just for freeze protection. Therefore, our water usage was up to 3 million gallons per day in the winter. Because the potable water used in these systems is discharged to Sinclair Inlet, it is important to note that sewer use levels did not experience a corresponding change.</p>
16	Page 69	<p>Concerning the third paragraph on page 69 where “Bremerton stated that PSNS instituted some major changes in using more of Sinclair Inlet water rather than the city’s tap water in its operations which resulted in salinity spikes and fluctuations thereby interfering with Bremerton’s WWTP and causing the city to violate its permit limits”, we request that the paragraph be removed since it is not correct as explained in comment number 15. If it’s not removed “Bremerton stated...” should be changed to “Bremerton believes...”</p>
17	Page 71	<p>Concerning the City of Bremerton’s 1-minute conductivity measurements at WB-3 from July 2016 to the present PSNS & IMF data reflects a different picture. The PSNS & IMF data is collected at Lift Station 1 (LS1), which represents 95% of the wastewater at WB-3. Lift Station 1 normally only operates one pump at constant flow rate around 1,300 – 1,400 gpm. The second pump only comes on when a large amount of water is coming into LS1 such as during a heavy rainstorm, which would push the flow rate up to around 2,100 gpm. During a normal day when only one pump is running at constant flow rate at LS1 our conductivity sensor shows that conductivity levels range from 3 millisiemens per centimeter (mS/cm) to 16 mS/cm.</p>

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		One thing that could explain the non-linear relationship between flow volumes and conductivity at WB-3 is the two sources. The lower conductivity levels during low flows at WB-3 could be connected to periods when only Lift Station 10, which is downstream of LS1, is pumping (100 gpm); this lift station has a lower conductivity than LS1, since it is mostly boiler blowdown from the Steam Plant.
18	Page 74	In support of PSNS & IMF's assertion that our wastewater salinity levels have not changed much over two decades, the recent annual average conductivity levels at WB-3 of 8.3, 8.5, 8.5, and 11.0 mS/cm for 2015 to 2018 are similar to the conductivity levels of 8.4, 9.3, and 8.4 mS/cm from 1997 to 1999. Another source, the 1998 City of Bremerton Water Reuse Feasibility Study showed an average conductivity at WB-3 from August 1996 to March 1997 of 8.6 mS/cm.
19	Page 74	Concerning the last sentence on this page that discusses conversion to low-flow toilets alone may not fully explain the dramatic decrease in water use (hundreds of thousands of gallons per day), prior to the implementation of temperature control automatic freeze protection projects, manual freeze protection bleed valves used up to 5 gpm per connection; at 300 connections up to a possible 2.16 million gallons per day could be used just for freeze protection. Therefore, our winter water usage changed from 3 million gallons per day to about 1.2 million gallons per day.
20	Page 75	Concerning the 2 nd paragraph under Ecology's Determination that discusses the proposed permit Special Condition S5.A that requires PSNS & IMF to minimize the use of marine (salt water), for sources that discharge to the Bremerton sewer, to the maximum extent possible, please refer to comment number 11 on section S5.A of the proposed permit.
21	Page 75	Concerning the first sentence under Ecology's Determination, "conductivity values are above 3.0 mS/cm" should be changed to "conductivity values are above 3.0 mS/cm at the WWTP".
22	Page 75	Concerning the first sentence under Ecology's Determination, "The data supplied by the City of Bremerton clearly shows that PSNS discharges high salinity wastewater to the Bremerton WWTP, which Bremerton stated has impacted their operations gravely since late 2014, particularly when conductivity values are above 3.0 mS/cm", Bremerton's Water Reuse Feasibility Study of 1998 showed

Comment Number	Fact Sheet Paragraph/Page Number	Comment
		that the WWTP average conductivity for 1994, 1995, and 1996 were 4.3, 3.3, and 3.3 mS/cm, respectively. This means the level of conductivity at the WWTP has been constant at least since 1994. Therefore, it is not clear that PSNS&IMF discharges, or any alleged change in those discharges occurring in 2014, impacted operations.
23	Page 75	Concerning the second sentence under Ecology's Determination, it would be clearer to state that the Bremerton City Council's resolution conductivity limit of 6.0 mS/cm applies to discharges into the Bremerton sewer system as opposed to the Bremerton WWTP.