NPDES Inspection Report

Permit # WA0002062

Puget Sound Naval Shipyard

Bremerton, WA

September 26, 2018

Prepared by:

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Environmental Protection Agency (EPA), Region 10
Office of Compliance and Enforcement (OCE)
Multimedia Inspection & RCRA Enforcement Unit (MIREU)

Table of Contents

I. Facility Information 1
II. Inspection Information 1
III. Permit Information 2
IV. Background 2
V. Inspection Chronology 2
VI. Site Review 3
VII. File Review 4
VIII. Areas of Concern 4
A. Discharge Limitation Violations 4
B. Illicit Discharges 4
C. Sample Methods for Oil and Grease 5
IX. Closing Conference 5

ATTACHMENT A – Schematic Diagrams
ATTACHMENT B – Photograph Log
ATTACHMENT C – Sign-in Sheets
ATTACHMENT D – Summary of Effluent Limit Violations since September 2013

I. Facility Information

Facility Name:	Puget Sound Naval Shipyard (PSNS) and Intermediate Maintenance Facility (IMF)
Facility Owner/Operator:	U.S. Navy
Facility & Mailing Address:	1400 Farragut Ave, Bremerton, WA 98314-5001
Lat/Long:	+47.56212°, -122.63729°
NAICS Codes:	336611 – Ship Building and Repair 928110 – National Security
NPDES Permit:	WA0002062
Receiving Water:	Sinclair Inlet on the Puget Sound
Facility Contacts:	Cody S. Matheson, Environmental Division Head Code 106.3 1400 Farragut Ave, Bremerton, WA 98314-5001 Office Phone: 360-476-6009 Cell Phone: 360-471-0482 Fax: 360-476-8550 Email: cody.matheson@navy.mil Trevor Richardson, NPDES Program Manager Code 106.32 1400 Farragut Ave, Bremerton, WA 98314-5001 Office Phone: 360-476-0118 Cell Phone: 360-535-2898 Fax: 360-476-8550 Email: trevor.richardson@navy.mil Paul Caswell, Stormwater Program Manager Email: paul.caswell@navy.mil

(Unless otherwise noted, all details in this inspection report were obtained from conversations with Mr. Trevor Richardson, Mr. Paul Caswell, or from observations during the inspection.)

II. Inspection Information

Inspection Date:	September 26, 2018
Inspectors:	Matt Vojik, Inspector, EPA Region 10, OCE / MIREU

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Arrival Time:	8:40 AM
Departure Time:	2:25 PM
Weather:	Sunny
Purpose:	To determine compliance with NPDES Permit WA0002062 and the Clean Water Act.

III. Permit Information

This facility is operating under NPDES Permit WA0002062. The permit became effective on April 1, 1994 and has been administratively extended since April 1, 1999.

IV. Background

The facility occupies about 350 acres located on the west side of the ferry terminal in Bremerton, WA. The shipyard is comprised of six drydocks, nine piers, four moorings and various industrial yards and buildings. Primary industrial activities involve the maintenance and dismantling of ships and submarines. The facility employs over 12,000 people. The Navy has owned and operated facilities at this location since 1891. In 1990, the Navy authorized a program to deactivate and recycle nuclear powered ships at the Puget Sound Naval Shipyard (PSNS).

PSNS is organized into departments with numerical designations called codes. Code 106 is the Environment, Safety, and Health Office, which oversees NPDES compliance. Mr. Trevor Richardson has been the NPDES Program Manager under the Code 106.32 since the beginning of 2018.

On April 4, 2013, the facility entered into a Federal Facility Compliance Agreement (FFCA), which specified corrective actions and upgrades to address repeated exceedances of the permitted effluent limits for recoverable copper. Status reports from the facility indicate that FFCA compliance activities have been completed since June 5, 2018.

The facility was last inspected for NPDES permit compliance on September 23, 2015 by the EPA.

V. Inspection Chronology

This was an announced inspection. I called Mr. Richardson on September 19, 2018 and made arrangements to meet on the day of the inspection. I met Mr. Richardson, Mr. Paul Caswell and Mr. Justin Hubbs at the ferry terminal at 8:40am on September 26, 2018. They escorted me to the conference room of their office building. I was accompanied throughout the inspection by facility representatives. I was not denied access to the facility.

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Note that if an inspector does not have a security access badge on file at PSNS, the facility requests the submittal of a "Regulatory Personnel Certification Form." The facility also prohibits visitors and staff from carrying equipment with photographic or recording capabilities. Mr. Richardson arranged for the facility to provide an authorized photographer to accompany us and take inspection photographs, which underwent a security screening and were emailed to me on October 5, 2018. The photographer's availability did not affect the progress of the inspection.

I began the inspection with an opening conference. I presented my credentials to the attendees and provided Mr. Richardson an EPA Small Business Resources Information Sheet. After taking a tour of the facility, I conducted a records review. I ended with a closing conference to discuss observations and next steps. The attendees of the opening conference are listed under "INBRIEF" in **Attachment C**. The same attendees were present at the closing conference along with additional attendees listed under "OUTBRIEF" in **Attachment C**.

VI. Site Review

Mr. Richardson and Mr. Caswell took me on a tour of the facility. Schematic diagrams appear in **Attachment A** and a photograph log appears in **Attachment B.**

I visited the steam plant and inspected the sampling points for Outfall 021, consisting of a composite sampler (**Photo 1**) and grab sampling port (**Photo 2**). Mr. Richardson said that the facility plans to decommission Outfall 021 in 2019 after a planned facility upgrade that will direct all steam plant wastewater to the sanitary sewer system.

I visited the drydocks and inspected the sampling points for Outfalls 018, 018A and 096. These sampling points consisted of normally closed valves located on pumpwell discharge pipes. Mr. Richardson said that Outfall 096 rarely discharges because flows from Drydocks 1, 2 and 3 are directed to Outfalls 018 and 018A at Drydocks 4 and 5. Outfall 096 is used as an alternative discharge point for Drydocks 1, 2 and 3 when docking or maintenance activities block the passage of flow to the pumpwells at Drydocks 4 and 5.

Outfall 019 is located at Drydock 6, which is the facility's largest drydock. I inspected the sampling point at Outfall 019, which consists of a normally open valve connected to a long plastic tube (**Photo 3**) that drains to a utility sink. Mr. Richardson said that the facility replaces the tube approximately once per month.

Mr. Richardson said that drydocks drain through grated channels along the perimeter of the drydock floors. The floor drains are connected to process water control systems (PWCS), which control discharges to the Sinclair Inlet or the sanitary sewer system. Each PWCS is equipped with a settling basin, process water tank and real-time turbidity meters. When turbidity exceeds 100 nephelometric turbidity units (NTU), flows are directed to on-site oily water treatment systems, which discharge to the sanitary sewer system.

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Environmental Safety and Health (ESH) managers conduct weekly inspections of the drydocks for best management practices. Effluent samples are collected and analyzed by the facility's on-site chemistry laboratory.

The facility also implements a Stormwater Pollution Prevention Plan (SWPPP), which identifies nine drainage zones for non-drydock stormwater. Six industrial zones are inspected monthly and three non-industrial zones are inspected quarterly. SWPPP training is provided by disseminating information twice annually via the facility's ESH Newsletter. Stormwater treatment systems are located at Pier B, the metal cutting area, the steel yard, and recycled metal transfer station. The permit does not require analytical monitoring of non-drydock stormwater discharges.

VII. File Review

I reviewed the following records:

- NPDES Permit
- FFCA Status Reports
- Discharge Monitoring Reports (DMRs)
- Non-Compliance Reports
- Laboratory Quality Manual dated 06/30/2017
- Standard Operating Procedure (SOP) 017 for Sampling Pumpwell Outfalls
- SOP 095 for Outfall 021 Sampling, Field Measurements and Administrative Actions
- Sampling Records, Analytical Reports, Data Logs and Calculations
- Process water discharge logs
- SWPPP last updated on 09/07/2017
- Best Management Practices (BMP) Plan
- Drydock Inspection Records

VIII. Areas of Concern

A. Discharge Limitation Violations

Part I.A.1.a. of the permit specifies discharge limitations for total recoverable copper.

Based on my review of DMR data and a summary report of effluent limit violations (**Attachment D**), the facility has recorded 355 violations of the effluent limit for total recoverable copper since September 2013. Mr. Richardson pointed out that some of the recent violations consisted of loading exceedances calculated with particularly high flows from Drydock 6. He said that non-contact cooling water from a docked vessel can contribute approximately 12 to 14 million gallons per day to the discharge.

B. Illicit Discharges

Part I.A.1. of the permit authorizes specific types of discharges, which do not include sanitary sewage.

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Over the past five years, the facility has reported multiple sanitary sewage discharges associated with sewer system overflows and cross connections with the stormwater drainage system. Most recently, the facility discovered a contractor's trailer with a sewage connection to a roof drain, that discharged to the Sinclair Inlet via the stormwater collection system. This cross-connection had been in place since May 2016 and was discovered in September 2018 after fecal contamination was identified during a monthly surface water sampling event. In June 2015, surface water sampling similarly identified fecal contamination that was traced to a restroom that had been plumbed to the stormwater drainage system for multiple years.

Mr. Richardson said that the Naval Facilities Engineering Command (NAVFAC) was developing new procedures for investigating sources of fecal contamination identified during future surface water monitoring events. He also said that NAVFAC was reviewing recent construction projects for other potential inadvertent cross-connections.

C. Sample Methods for Oil and Grease

Part IV.B. of the permit states that "monitoring must be conducted according to test procedures approved under 40 CFR Part 136."
AND
Part IV.A. of the permit states that "samples and measurements shall be representative of the volume and nature of the monitored discharge."
AND
Section 8 of EPA Method 1664 (Oil and Grease) instructs the sampler to "collect approximately one liter of representative sample in a glass bottle… The high probability that extractable matter may adhere to sampling equipment and result in measurements that are biased low precludes the collection of composite samples for determination of oil and grease."

I noted that the facility uses a long plastic tube (**Photo 3**) to collect grab samples for oil and grease at Outfall 019. Although I have not found this technique specifically discussed in approved sampling methods for oil and grease, I noted that the potential for extractable matter to adhere to the plastic sampling tube, combined with the facility's practice of replacing this tube on a monthly basis, could result in measurements that are biased low and not representative of the monitored discharge.

IX. Closing Conference

I held a closing conference with facility representatives. A sign-in sheet of attendees appears in **Attachment C**. I discussed the areas of concern identified during the inspection and I gave a brief overview of the post-inspection process. I thanked everyone for their time and assistance with the inspection.

Report Completion Date: _____

Lead Inspector Signature: _____

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ATTACHMENT A – Schematic Diagrams

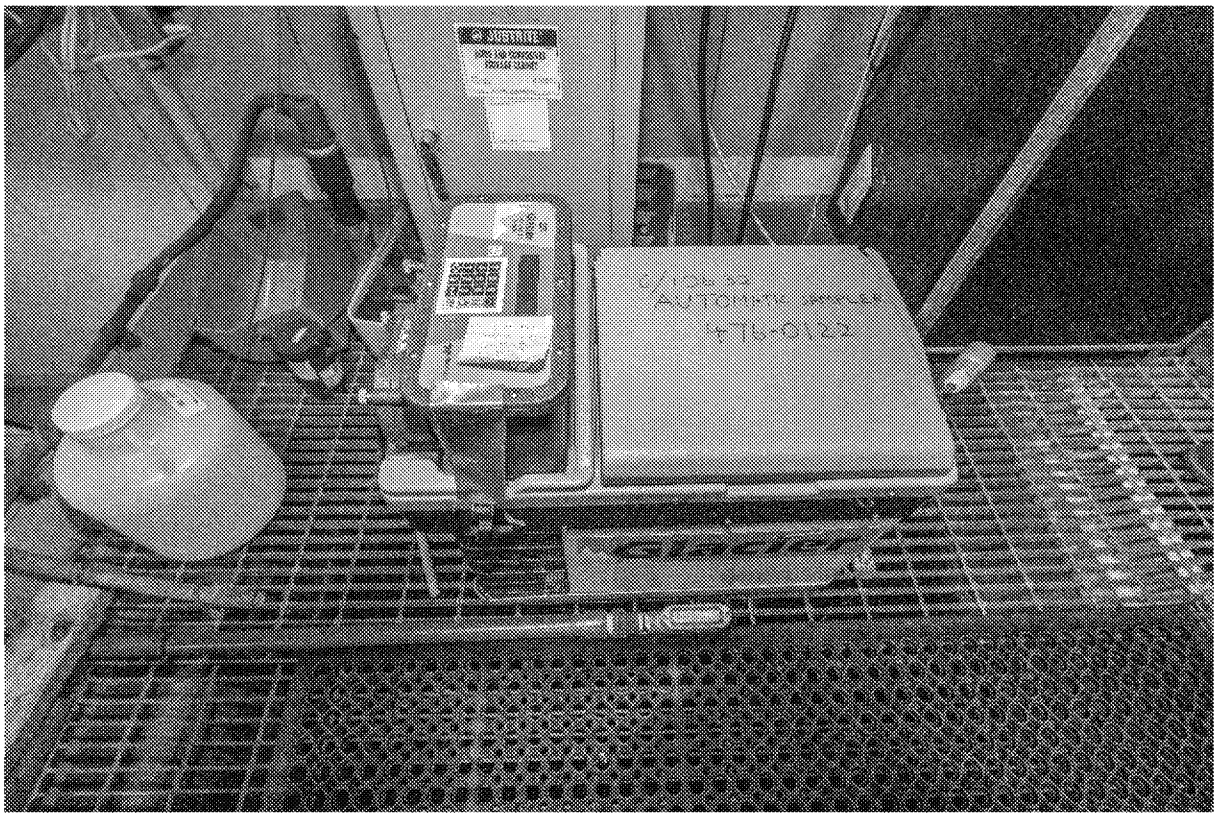
Detail views include:

- Controlled Industrial Area (CIA) Waterfront
- Naval Base Kitsap (NBK) Waterfront

ATTACHMENT B – Photograph Log

Note: Photographs were taken on September 26, 2018 by a facility photographer with a Canon EOS 5D Mark IV camera and provided to the EPA via email on October 5, 2018.

18-1514 26SEP2018 RELEASED

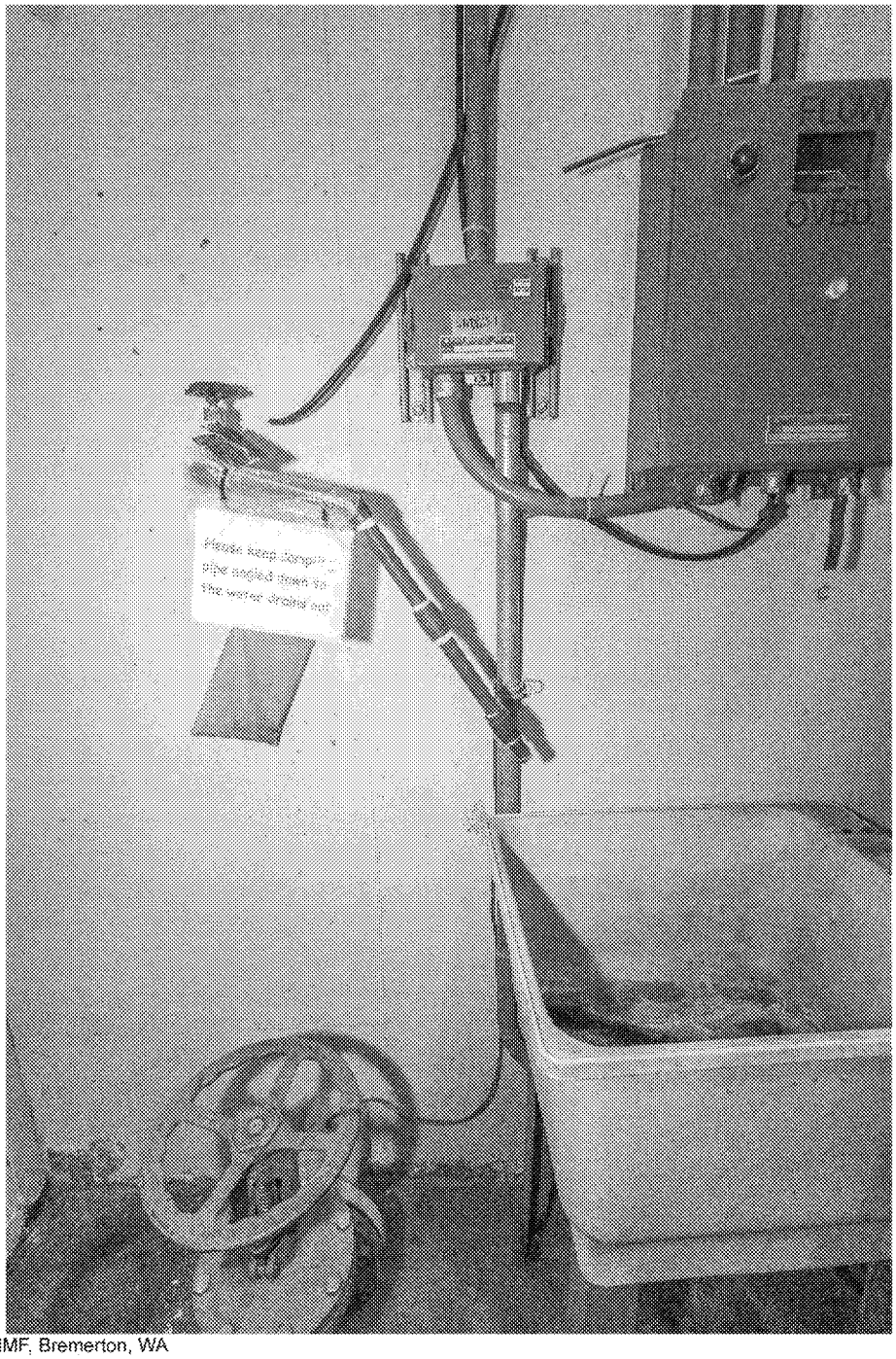


PSNS&IMF, Bremerton, WA
DISTRIBUTION STATEMENT A: Approved for public release; Distribution is unlimited.

RELEASED

Photo 1 / 18-1514-RELEASED-TVN-001 – Composite sampler at Outfall 021 at the Steam Plant

18-1514 26SEP2018 **RELEASED**

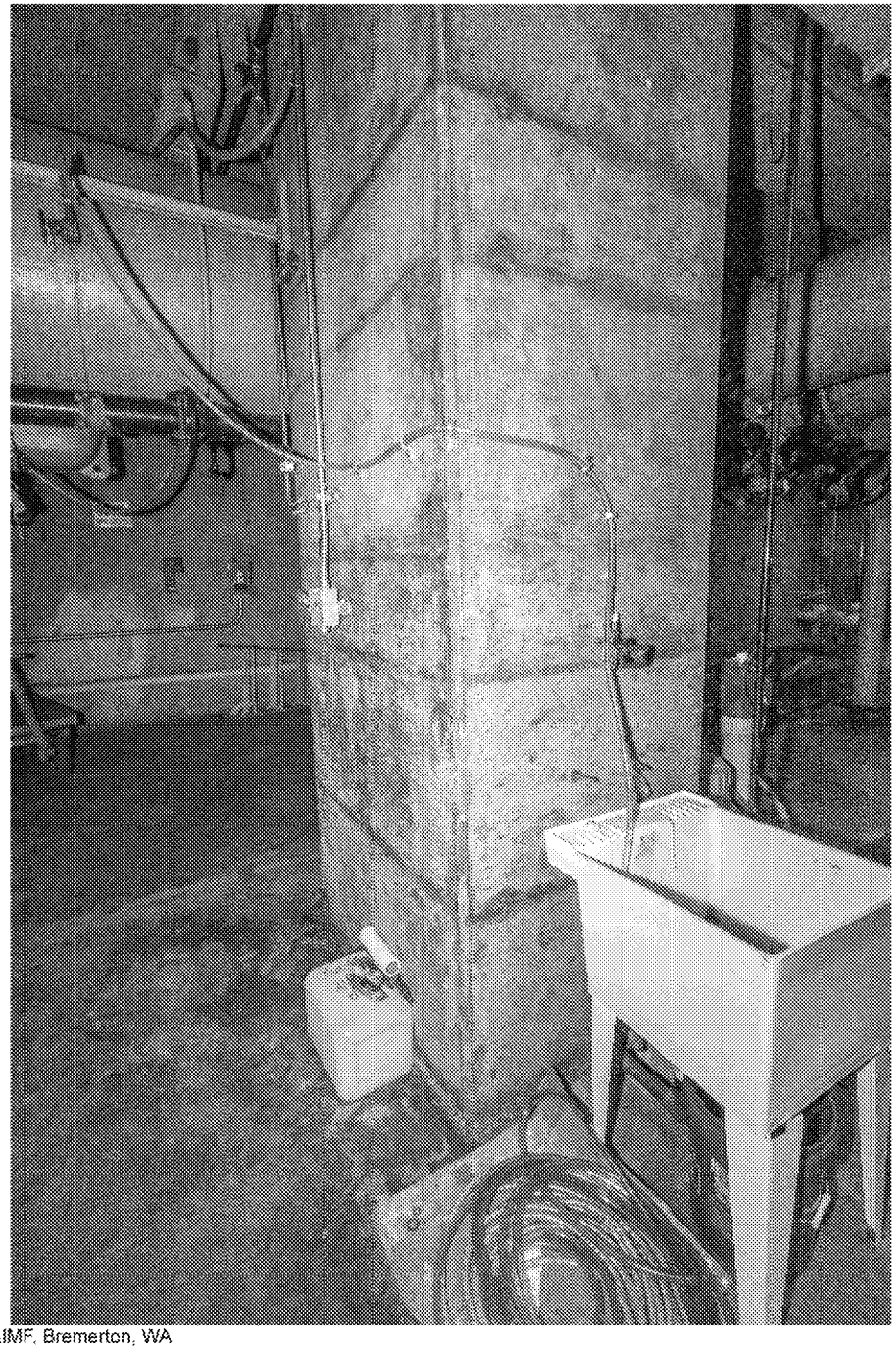


PSNS&IMF, Bremerton, WA
DISTRIBUTION STATEMENT A: Approved for public release; Distribution is unlimited.

RELEASED

Photo 2 / 18-1514-RELEASED-TVN-004 – Grab sampling port at Outfall 021 at the Steam Plant

18-1514 26SEP2018 **RELEASED**



PSNS&IMF, Bremerton, WA
DISTRIBUTION STATEMENT A: Approved for public release; Distribution is unlimited.

RELEASED

Photo 3 / 18-1514-RELEASED-TVN-005 – Sampling tube for Outfall 019 at Drydock #6

Complete list of photographs taken during the inspection:

- 18-1514-RELEASED-TVN-001 – Composite sampler at Outfall 021 at the Steam Plant
- 18-1514-RELEASED-TVN-002 – Grab sampling port at Outfall 021 at the Steam Plant
- 18-1514-RELEASED-TVN-003 – Utility sink under the grab sampling port at Outfall 021 at the Steam Plant
- 18-1514-RELEASED-TVN-004 – Grab sampling port at Outfall 021 at the Steam Plant
- 18-1514-RELEASED-TVN-005 – Sampling tube for Outfall 019 at Drydock #6
- 18-1514-RELEASED-TVN-006 – Sampling tube for Outfall 019 at Drydock #6

Note: Photographs were taken on September 26, 2018 by a facility photographer with a Canon EOS 5D Mark IV camera and provided to the EPA via email on October 5, 2018.