



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

Report Title: Clean Water Act Compliance Inspection Report
Inspection Date(s): 11/29/2022
Regulatory Program(s): National Pollutant Discharge Elimination System (NPDES)
Type of Activity: Wastewater Treatment Plant
Facility Name: Naval Support Facility Indian Head (NSFIH)
Permittee(s): Naval Support Facility Indian Head (NSFIH)
Facility Operator: Naval Support Facility Indian Head (NSFIH)
Permittee Address: 3972 Ward Road, Suite 101, Indian Head, Maryland 20640-5157
Facility Address: 3972 Ward Road, Suite 101, Indian Head, Maryland 20640-5157
Facility Latitude: 38.596648
Facility Longitude: -77.179034
County/Parish: Charles County
Permit No: MD0020885
NAICS Code: 221320
SIC: 4952
Unique Project #: 3E23WN015A

Facility Representative(s): **Point of Contact**

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2/2/2023

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Date

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Mark Zolandz, Section Chief
NPDES Enforcement Section (3ED32)

Date

Unique Project #: 3E23WN015A

Table of Contents

<u>Section</u>		<u>Page</u>
I	Introduction.....	3
A	Inspection Opening Conference.....	3
B	Weather and Precipitation Conditions.....	3
II	Facility Activity.....	4
III	Observations.....	4
IV	Records Review.....	6
V	Closing Conference.....	7
VI	List of Attachments.....	7

I. Introduction

On November 29, 2022, an inspection team composed of staff from the U.S. Environmental Protection Agency (“EPA”) Region III (hereinafter, “EPA Inspection Team”) conducted a wastewater treatment plant (“WWTP”) inspection of the Naval Support Facility Indian Head (NSFIH). The purpose of the inspection was to observe compliance with the Clean Water Act (CWA) and to verify compliance with the facility’s National Pollutant Discharge Elimination System (NPDES) Permit No. MD0020885 (hereinafter, the “Permit”) and applicable State and Federal regulations.

A. Inspection Opening Conference

The EPA Inspection Team arrived at the facility at approximately 8:30 AM. Representatives from the Maryland Department of the Environment (MDE) were in attendance. The following inspectors and representatives were present for the inspection:

Table 1: Inspection Attendee List

Name	Affiliation	Telephone	Email
EPA Region III Inspectors			
Kaitlin McLaughlin	EPA Region III	215-814-2393	McLaughlin.Kaitlin@epa.gov
Michael Greenwald	EPA Region III	215-814-2398	Greenwald.Michael@epa.gov
Facility Representatives			
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Tara Meadows	NSFIH EV	202-718-0665	tara.l.meadows2.civ@us.navy.mil
Kenneth Robitaille	NSFIH EV	202-718-0682	kenneth.r.robitaille.civ@us.navy.mil
Diana Rose	NSFIH EV	301-744-2267	diana.l.rose.civ@us.navy.mil
Victoria Waranoski	NAVFAC EV	202-685-8056	victoria.m.waranoski.civ@us.navy.mil
State or County Representatives			
Greg Kolarik	MDE	443-532-9020	greg.kolarik@maryland.gov

Kaitlin McLaughlin and Michael Greenwald displayed their credentials to the facility representatives at the outset of the inspection, and explained the purpose of the inspection was to observe compliance with its Permit. A copy of the Permit is provided in [Attachment 1](#).

B. Weather and Precipitation Conditions

The closest National Oceanic and Atmospheric Administration (NOAA) National Weather Service precipitation data for the date of the inspection and 5 days prior are provided in Table 2 below.

Table 2. Precipitation Data

Station Name	Date	Precipitation Amount (inches) ¹
ALEXANDRIA 6.6 WNW, VA US US1VAFX0081	11/24/22	0.00
ALEXANDRIA 6.6 WNW, VA US US1VAFX0081	11/25/22	0.11

¹ Source: NOAA National Climatic Data Center (<http://www.ncdc.noaa.gov/>).

ALEXANDRIA 6.6 WNW, VA US US1VAFX0081	11/26/22	0.04
ALEXANDRIA 6.6 WNW, VA US US1VAFX0081	11/27/22	0.00
ALEXANDRIA 6.6 WNW, VA US US1VAFX0081	11/28/22	0.19
ALEXANDRIA 6.6 WNW, VA US US1VAFX0081	11/29/22	0.00
ALEXANDRIA 6.6 WNW, VA US US1VAFX0081	11/30/22	0.21
ALEXANDRIA 6.6 WNW, VA US US1VAFX0081	12/1/22	0.08

II. Facility Activity

NSFIH is a naval base which consists of various industrial activities including explosive and propellant manufacturing, research, development, assembly, and testing. The facility discharges industrial wastewater, stormwater, and various process wastewaters.

The facility implements a wastewater program and is regulated under the Permit, which became effective on September 1, 2021 and expires on August 31, 2026. The Permit requires NSFIH to submit several special condition report submittals. Those submittals include: Effluent Biomonitoring Study Plan and Toxic Chemical Testing Plan, Effluent Biomonitoring Study Report, Effluent Toxic Chemical Testing Report, Wastewater Capacity Management Plan, Flow Capacity Report, and Per-and Polyfluorinated Alkyl Substances Plan and Report.

The WWTP is a sequencing batch reactor (SBR) plant which has a design flow of 0.5 million gallons per day (MGD) and an average flow of 0.36 MGD. The WWTP discharges through outfall 001A to the Potomac River which is designated as Use II (non-shellfish harvesting) water and is protected for estuarine and marine aquatic life.

The inspection included discussions with wastewater staff, file reviews, and field visits. The EPA Inspection Team conducted additional on-site interviews and reviewed a portion of the facility's records. Additional records were reviewed offsite.

Observations based on both the offsite compliance review and the field visits are documented in the sections below.

III. Observations

The inspection began on Tuesday, November 29, 2022 at approximately 10:30 AM in Building 289 with a records review and interview questions. The inspection observations below are made pursuant to the requirements of the Permit. Photographs were taken during the inspection by a facility representative Linsey De La Rosa and are provided in Attachment 2. The Photograph Log referenced throughout this inspection report is designated as Controlled Unclassified Information.

The EPA Inspection Team conducted a walkthrough of the WWTP with facility representatives, starting at approximately 12:30 PM. The time stamps on all photographs dated 11/29/2022 are an hour delayed. The walkthrough started at the influent of the WWTP, where the EPA Inspection Team observed the rock trap (Photograph Log, Page 2), the diversion valve (Photograph Log, Page 3), 125,000 gallon diversion tank (Photograph Log, Page 4 and Page 5),

and influent channel (Photograph Log, Page 6). At the influent channel there is an automatic influent composite sampler (Photograph Log, Page 34) and a grit removal system.

Observation 1. At the time of the inspection, the EPA Inspection Team observed the grit chamber auger was offline. The area where the auger had been attached appeared to be rusted (Photograph Log, Page 7 and Page 8). Facility representatives had installed a temporary hose to remove grit and stated that a replacement auger has been ordered. The removed auger was located by the rock trap (Photograph Log, Page 10).

From the influent flow channel, wastewater is pumped to a splitter box. Before flow is split, there is an influent flow meter (Photograph Log, Pages 11-13) and pH meter (Photograph Log, Page 15). Flow is then split and continues through the plant through two parallel SBRs (Photograph Log, Page 16). Flow then moves through denitrification filters (Photograph Log, Page 17 and 18) and UV treatment (Photograph Log, Page 19 and Page 20).

The EPA Inspection Team then moved to the effluent channel. In the effluent channel, there is a flow meter (Photograph Log, Page 21), pH meter (Photograph Log, Page 22), and dissolved oxygen (DO) meter (Photograph Log, Page 23).

Observation 2. At the time of the inspection, the pH meter was off and the DO meter display screen indicated that the sensor was missing. Facility representatives stated that pH and DO are manually sampled two times per day.

Flow then moves over the effluent weir (Photograph Log, Page 24) and samples are automatically collected for the 24 hour composite sampler (Photograph Log, Page 25).

From the effluent channel, the EPA Inspection team moved to the sludge thickener (Photograph Log, Page 28), sludge pumphouse (Photograph Log, Page 29), and sludge holding tanks (Photograph Log, Pages 30, 31, and 33). The plant hauls thickened sludge to the Mattawoman water reclamation plant in Charles County. NSFIH has a 3,500 gallon capacity sewage truck (Photograph Log, Page 32). Facility representatives stated that sludge is hauled approximately 10 times per month.

The EPA Inspection Team then observed the on-site lab and reviewed documentation stored in the lab. In addition to the on-site lab, NSFIH utilizes several additional labs that are contracted for lab chemistry, microbacterial, biomonitoring, PCBs, and PFAS.

The facility representatives stated that there are five full-time operators on-site. Operators are on-site seven days a week from the hours of 7 AM to 7 PM.

NSFIH has several pump stations and lift stations that transport wastewater to the WWTP. The EPA Inspection Team observed pump station 7 (Photograph, Pages 36-38).

Observation 3. At the time of the inspection, there were five sanitary sewage overflows (SSOs) in 2022. More details are provided below in Table 3.

Table 3: SSO List

Date	Location	Volume	Description
January 4 & 5, 2022	Lift Stations 1, 5, 10, and 13	~11,600 gallons	A heavy snowfall caused power outages lasting several days, 4 lift stations overflowed during the power outages including 3 with emergency generators that failed.
March 18, 2022	Lift Station 5	~200 gallons	A flexible hose used temporarily to bypass the lift station while the station is under repair split. The hose was repaired.
April 11, 2022	Lift Station 10	~300 gallons	A failed circuit breaker cut off power to the lift station's control panel. The power failure alarm will be moved to ensure it will indicate if there is power to the control panel.
August 1, 2022	Lift Station 5	~250 gallons	An estimated 250 gallons of dilute raw sewage overflowed and soaked into the ground leading into a ditch due to a pump mechanical failure. The water consisted mostly of industrial cooling water with boiler blowdown, reverse osmosis reject water and raw sewage. The overflow was discovered at 2:15 pm and was stopped by 3:00 pm by turning on a second pump.
November 16, 2022	B3153 at the Sewage Plant	~2000 gallons	An estimated 2000 gallons of partially treated sewage overflowed from building 3153. Two pumps failed causing the overflow. The actual cause of the pump failure is under investigation. The pump failure allowed the below grade portion of the building to fill with wastewater. The wastewater flowed out of the building when operators reported to work and opened the door to the building at 6:30 am. The overflow stopped after using the pumper truck and a portable sump pump to transfer wastewater from the building to the headworks of the sewage plant. The portable sump pump will remain in service at the site until the main pumps are back in service. Lime was spread in the area of the spill.

IV. Records Review

EPA requested and received copies of the following documents:

- Current WWTP site map
- Pump Station Inspection Sheets
- Operator licenses
- 3 years of SSOs
- Lab information
- Permit Special Condition Submittals
- WWTP Process Flow Diagram

Records pertaining to the inspection report are attached, with additional records being kept on file.

V. Closing Conference

After the facility walkthrough, the EPA Inspection Team met with the site representatives for a closing conference. The EPA Inspection Team shared preliminary observations with the site representatives. The EPA Inspection Team reiterated to the site representatives that all preliminary observations discussed were not compliance determinations. Any and all preliminary observations shared were subject to further investigation by EPA upon the additional review of records and documentation. Additional observations may be contained in this inspection report that were not identified at the time of the closing conference after EPA reviewed additional materials following the inspection.

The inspection concluded at approximately 2:30 PM.

The WWTP inspection was the first inspection of a three-part CWA inspection of NSFIH. The third and final inspection of NSFIH was concluded on December 1, 2022. At the conclusion of the third inspection, the EPA Inspection Team met with site representatives for a comprehensive closing conference. The EPA Inspection Team shared preliminary observations with the site representatives and reiterated the above information.

The final closing conference concluded at approximately 3:00 PM on December 1, 2022.

VI. List of Attachments

- Attachment 1. NPDES Permit
- Attachment 2. Photograph Log
- Attachment 3. SWPPP