NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT FACT SHEET
September 2025

Permittee Name:	Mobil Oil Mariana Islands, Inc. – Mobil Saipan Terminal
Mailing Address:	P.O. Box 500367
Facility Location:	Petroleum Lane Puerto Rico Village, MP - 96950
Contact Person(s):	Pedro G. Ortiz, CNMI Field Operations Manager 670-788-5837, pedro.g.ortiz@exxonmobil.com
NPDES Permit No.:	MP0020397

I. STATUS OF PERMIT

Mobil Oil Mariana Islands, Inc. (the "permittee") has applied for the renewal of their National Pollutant Discharge Elimination System (NPDES) permit to authorize the discharge of stormwater, storage tank water draws, hydrostatic test water, firewater system testing, and miscellaneous maintenance discharges from the Mobil Saipan Terminal to the Tanapag Harbor. A complete application was submitted on October 24, 2022, with additional information provided on April 26, 2023 and May 18, 2023. The permittee submitted a mixing zone analysis on April 19, 2023. EPA Region 9 developed this permit and fact sheet pursuant to Section 402 of the Clean Water Act (CWA), which requires point source dischargers to control the amount of pollutants that are discharged to waters of the United States through obtaining a NPDES permit.

The permittee is currently discharging under NPDES permit MP0020397 effective on May 1, 2018. Pursuant to 40 CFR § 122.6, the terms of the existing permit are administratively extended until the issuance of a new permit.

This permittee has been classified as a minor discharger.

II. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

Table 1. Significant Changes to the Previous Permit

Permit Condition	Previous Permit (2018 – 2023)	Re-issued permit (2025 – 2030)	Reason for change
Enterococcus Effluent Limitation	Monitoring	Added single sample maximum of 130 MPN/100mL	*CNMI Water Quality Standards* (approved 2014) and Saipan Coastal Bacteria TMDLs and wasteload allocations (approved 2018).
Lead Effluent Limitation	Maximum daily discharge of 210 µg/L	Removal of effluent limit. Retain Monitoring quarterly	Evaluation of monitoring results shows no reasonable potential for this parameter; thus, EPA is removing this effluent limit.
Ammonia Effluent Limitation	Monitoring once per permit term	Increased Monitoring to quarterly	The permit increased monitoring because reasonable potential exists.
Chronic Toxicity (WET) Testing	None	The permit requires annual chronic toxicity testing.	Consistent with *CNMI Water Quality Standards* for toxic pollutants.
Asset Management Plan	Not required	Required. Plan to complete and have available within two years of effective date.	Provision of 40 CFR § 122.41(e)
Narrative effluent limits	Included	Updated	Consistent with *CNMI Water Quality Standards* (2021)
Other Limitations	Included	Updated	EPA has updated certain narrative water quality-based limitations to express them in terms of the restrictions on the permitted discharge.
Copper	Maximum daily discharge of 7.3 µg/L	Maximum daily discharge of 8.2 µg/L	Correcting mathematical error in calculation of effluent limit in prior permit.

Permit Condition	Previous Permit (2018 – 2023)	Re-issued permit (2025 – 2030)	Reason for change
Tiered Outfall Habitat Monitoring	None	Requires initial monitoring (Tier I) within two years of effective date, with potential for additional monitoring (Tier II) within four years of effective date.	Result of EFH consultation with NMFS due to insufficient baseline data.

III. GENERAL DESCRIPTION OF FACILITY

The Mobil Saipan Terminal ("facility" or "permittee") is a petroleum bulk storage and distribution terminal located at the Saipan Seaport ("Port") in the Commonwealth of the Northern Mariana Islands ("CNMI"). Bulk fuels are delivered to the facility at the commercial dock. Bulk fuels are stored at the facility and distributed via tank trucks to company-owned service stations and to commercial and government accounts throughout Saipan. The facility also supplies diesel fuel to marine vessels at the Port's dock. Bulk fuels are delivered to the facility only at the adjacent commercial dock.

Products handled at the facility include motor gasoline, jet fuel, and diesel. Lubricants and hydraulic fluids are associated with oil-filled operational equipment. In the event of a fire, chemical foaming agents are used in firefighting water. These chemical foaming agents are not used during fire water system testing. The permit prohibits the discharge of any chemical firefighting foaming agents during firefighting water system testing or during normal operations.

In 1994, Mobil Saipan upgraded its oil-water separator and sought a "Land Disposal of Waste Water Permit" from the CNMI Bureau of Environmental and Coastal Quality ("BECQ") to discharge stormwater into percolation fields. The facility also has NPDES permit coverage under EPA's multi-sector general permit ("MSGP") (i.e. permit number NIR05A088), which covers stormwater discharges not authorized by this individual permit (i.e. yard drainage). Therefore, this permit authorizes the discharge of industrial wastewater, hydrostatic test water, and other stormwater discharges not authorized by the MSGP. Specifically, stormwater collected in the containment areas (i.e. tank, loading rack, and drum areas) flow to an oil and water separator and are then discharged to the Port's sewer system, which flows to the Harbor.

All storage areas are concrete-paved, including a diked containment area for stormwater, the storage tanks and containment area, the tank truck loading rack, and the facility yard. The paved area at the facility's truck loading station drains only to an oil-water separator. Dry clean-up practices are used to control release of pollutants from drips and minor leaks into containment areas to minimize the potential for oil and grease in the stormwater discharge.

IV. DESCRIPTION OF RECEIVING WATER

Discharges from the facility flow directly into the Port's storm sewer and then to the Tanapag Harbor. The storm sewer is an underground box culvert 6 feet (ft) wide by 3 ft high. The Port's storm sewer discharges to Tanapag Harbor approximately 900 ft from the location where the facility's discharges into the storm sewer. The point of monitoring and compliance for the facility is Outfall 001, located after the facility's oil-water separator and lift station and before the tie-in to the Port's sewer system.

Under *CNMI Water Quality Standards*, Tanapag Harbor is designated as a "Class A Marine Water." Class A waters in Saipan are limited to shoreline from Smiling Cove Marina to Saddok As Agatan (includes Tanapag Harbor and Sadog Tasi Wastewater Treatment Plant outfall) and an area around the Agingan Wastewater Treatment Plant outfall. Water quality criteria for Class A waters protect recreational and aesthetic enjoyment uses.

Other designated uses are allowed if they are compatible with the protection and propagation of fish, shellfish, and wildlife, as well as recreation in and on these waters. Class A waters shall be kept clean of solid waste, oil and grease, and shall not act as receiving waters for any effluent, which has not received the best practicable degree of under existing technology and economic conditions and is compatible with other Class A standards.

The Tanapag Harbor (i.e. coastal waters in the North W. Takpochao watershed) is listed as impaired for nitrate, orthophosphate, lead contamination in bi-valves, and for enterococci and is not attaining the aquatic life and propagation and the recreational designated uses (CNMI IR 2022). A Total Maximum Daily Load (TMDL) for Coastal Waters Impaired by Bacteria on Saipan went into effect in 2017. This watershed contains the harbor, a marina, a seaplane ramp, the Channel Bridge, and a closed municipal dump.

V. DESCRIPTION OF DISCHARGE

Outfall 001 discharges to the Commercial Port Avenue (CPA) storm sewer through a concrete-encased PVC pipe at a vertical angle of 0° (horizontal with respect to the channel bottom). The pipe diameter is 0.305 m (12 inches). Because the facility stores storm water in containment areas and treats it through the oil-water separators at a controlled rate, Outfall 001 may typically discharge to the storm sewer when there is no storm water from the Port drainage area flowing through the sewer. The CPA storm sewer discharges to Tanapag Harbor in the southwest corner adjacent to the west side of the dock. The Port's storm sewer exit is 3 feet above the water surface. However, the storm sewer exit may occasionally be at the water surface during high tide or partially submerged during tropical storms/typhoons.

Discharges via Outfall 001 (into the Port's storm sewer) consists of stormwater, storage tank bottom water draws, hydrostatic testing, firefighting and system tests water, service water system leaks, and maintenance activities. Most discharges consist of stormwater (i.e. 90% of flow) and therefore, flows vary. The stormwater flows come from 157,707 square feet and do

not come into contact with stored materials. Stormwater runoff from the yard area at the terminal does not flow to the oil-water separators. Runoff from the yard area flows into a catch basin, which flows directly into the lift station, and then into the Port's sewer system. Drainage from a vehicle onsite parking area also flows to a catch basin that ties into the Port's sewer system downstream of Outfall 001, and therefore does not flow through the oil-water separators. The connection valve from this catch basin to the Port's sewer will be normally closed except to drain the area during heavy rainfall conditions. No industrial activities occur in the yard or parking areas. As part of the Pollution Prevention Plan, the permit contains requirements for best management practices ("BMPs") to be implemented in the yard and parking areas to minimize pollutant loads during storm events, consistent with permit coverage under the MSGP.

Table 2. Flow Source Estimates from NPDES Permit Application.

Flow Source	Frequency	Flow	
	Average months/year	Long-term average daily flow rate (GPD)	Duration (days)
Hydrostatic testing	2	600	2
Storage tank water draws	4	10	4
Fire system testing, leaks, firefighting	12	380	4
Service (potable) water system leaks/maintenance	12	10	14
Stormwater	Variable	9,000*	NA
TOTAL		10,000	

*The maximum flow rate in gallons per day reported is 53,965 gallons.

The terminal lift station operates on level control and the normal pumping rate is 600 gallons per minute (gpm). The pumps do not operate at variable flow rates (i.e. when the facility discharges, the flow rate is 600 gpm until the discharge stops). At this pump rate, the pumping durations associated with the maximum and long-term average flow rates are 90 minutes/day and 16.7 minutes/day, respectively.

Other wastewater generated, and subsequently discharged via Outfall 001, include tank draw waters and hydrostatic test waters. The storage tank bottom water draws occur when water has separated from the stored petroleum product because of density differences. As this water coalesces and then settles to the bottom of the tank, compounds including benzene, toluene, ethylbenzene, and xylene (BTEX) and polycyclic aromatic hydrocarbons (PAHs) can partition and dissolve into the water. The partitioning and dissolution allow the concentrations of some of the more soluble and denser petroleum components to reach toxic levels. Terminal operators drain this layer of water to prevent transfer with the finished product as well as to free up storage space in the tank. Hydrostatic testing involves filling pipes with fluid under pressure and monitoring pressure drops over time. If the system maintains constant pressure, there are no leaks within the pipe.

As described above, discharges are treated by one of two oil-water separators. The separators can be operated in parallel, or only one separator can be used, depending on the volume of water requiring treatment and the targeted rate of treatment. Wastewater from the separators flows by gravity into a 3,800-gallon lift station. Treated wastewater will be pumped in a 12-inch diameter concrete-encased PVC pipe to a point where it will enter the Port's storm sewer system, at Outfall 001. The sewer system then discharges to Tanapag Harbor. Typical flow through the lift station will be 600 gpm, but up to 1,200 gpm can be pumped through the lift station under extreme conditions, such as if the tank farm is flooded.

The permittee provided additional information on May 8, 2025 during the public comment period. The permittee stated their process does not generate a thermal wastewater. Temperature of the discharge may be also affected by natural heating from ambient air temperatures and sunlight.

The permittee also provided additional flow data. During the January 2019 - October 2024 time period, the facility discharged to Tanapag Harbor for a total of 54 days or an average of 10.8 days/year (average duration = 7.4 hours/year total - i.e., most discharges were less than one hour duration). The average flow/discharge was 16,003 gallons/day.

Table 3 shows data related to discharge from Outfall 001 based on permittee's NPDES renewal application and data reported on discharge monitoring reports. More information is available on Enforcement and Compliance History Online (ECHO) at https://echo.epa.gov/detailed-facility-report?fid=110070106009.

Pollutants believed to be absent or never detected in the effluent are not included. The data show permit limit exceedances for pH, arsenic, copper, zinc, benzene, phosphorous, and manganese. All exceedances are discussed further in Part VI.B.5. Some of the parameters that were reported in the application are not limited in the current permit (including BOD, COD, and TOC).

Table 3. Effluent Data for Outfall 001 from 2018 to 2023.

Parameter	Units	Permit Effluent Limits (2018-2023)	Maximum Effluent Data	Number of Samples
BOD	mg/L	(1)	2.4	13
COD	mg/L		58.9	1
TOC	mg/L		2.78	1
TSS	mg/L	40	19	21
Ammonia	mg/L	(1)	0.119	1
pH (min)		7.2	7.1	18
pH (max)		9.2	9.0	18
Arsenic	mg/L	0.0074	0.0059	21
Chromium (total)	mg/L		0.0005	6
Copper	mg/L	0.0073	0.0239	21

Parameter	Units	Permit Effluent Limits (2018-2023)	Maximum Effluent Data	Number of Samples
Lead	mg/L	0.210	0.0068	21
Zinc	mg/L	0.188	0.221	21
Benzene	mg/L	0.035	0.173	21
Oil and grease	mg/L	15	2.88	21
Phosphorous (total)	mg/L	0.655	2.9	19
Manganese	mg/L	0.220	0.181	19
Temperature (min)	deg F	(1)	78.8	12
Temperature (max)	deg F	(1)	98.8	12
Salinity	ppm	(1)	139	12
Enterococci	MPN/100mL	(1)	1986.3	8
Total Polycyclic Aromatic Hydrocarbons – Group I(2)	µg/L	(1)	ND(4)	3
Total Polycyclic Aromatic Hydrocarbons – Group II(3)	µg/L	(1)	ND(4)	3

(1) No effluent limits were established, but monitoring and reporting were required.
(2) Group I PAHs are comprised of: 1) benzo(a)anthracene, 2) benzo(a)pyrene, 3) benzo(b)fluoranthene, 4) benzo(k)fluoranthene, 5) chrysene, 6) dibenzo(a,h)anthracene, and 7) indeno(1,2,3-cd)pyrene.
(3) Group II PAHs are comprised of: 1) acenaphthene, 2) acenaphthylene, 3) anthracene, 4) benzo(g,h,i)perylene, 5) fluoranthene, 6) fluorene, 7) naphthalene, 8) phenanthrene, and 9) pyrene.
(4) Permittee reported monitoring data was below the detection limit or non-detect.

VI. DETERMINATION OF NUMERICAL EFFLUENT LIMITATIONS

EPA has developed effluent limitations and monitoring requirements in the permit based on an evaluation of the technology used to treat the pollutant (i.e., "technology-based effluent limits") and the water quality standards applicable to the receiving water (i.e., "water quality-based effluent limits"). EPA has established the most stringent of applicable technology-based or water quality-based standards in the draft permit, as described below.

A. Applicable Technology-Based Effluent Limitations

Technology-based treatment requirements may be imposed on a case by case basis under Section 402(a)(1) of the CWA, to the extent that EPA promulgated effluent limitations are inapplicable (i.e., the regulation allows the permit writer to consider the appropriate

technology for the category or class of point sources and any unique factors relating to the applicant) (40 CFR § 125.3(c)(2)).

Permits issued to non-POTWs must require compliance with a level of treatment performance equivalent to Best Practicable Control Technology Currently Available ("BPT"), Best Available Technology Economically Achievable ("BAT"), or Best Conventional Pollutant Control Technology ("BCT") for existing sources, and consistent with New Source Performance Standards ("NSPS") for new sources. Where federal effluent limitations guidelines ("ELGs") have been developed for a category of dischargers, the TBELs in a permit must be based on the application of these guidelines.

There are no applicable ELGs for petroleum bulk storage terminals (i.e., SIC 5171). EPA considered the need for ELGs for petroleum bulk storage terminals in the Technical Support Document for the 2004 Effluent Guidelines Program Plan but concluded that regulation of this industry category under individual permits was adequate (EPA 2004).

If ELGs are not available, a permit must include requirements at least as stringent as BPT/BAT/BCT developed on a case-by-case using best professional judgment ("BPJ") in accordance with the criteria outlined at 40 CFR 125.3(d). EPA is proposing effluent limits for total suspended solids and for oil and grease based on BPJ. Rationale for effluent limits is in Part VI.C.

B. Water Quality-Based Effluent Limitations

Water quality-based effluent limitations are required in NPDES permits when the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an excursion above any water quality standard (40 CFR § 122.44(d)(1)).

When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above narrative or numeric criteria, the permitting authority shall use procedures which account for existing controls on point and non-point sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when evaluating whole effluent toxicity) and where appropriate, the dilution of the effluent in the receiving water (40 CFR § 122.44(d)(1)(ii)).

EPA evaluated the reasonable potential to discharge toxic pollutants according to guidance provided in the *Technical Support Document for Water Quality-Based Toxics Control* (TSD) (Office of Water, U.S. EPA, March 1991) and the *U.S. EPA NPDES Permit Writers' Manual* (Office of Water, U.S. EPA, September 2010). These factors include:

1. Applicable standards, designated uses and impairments of receiving water
2. Applicable Ocean Discharge Criteria
3. Dilution in the receiving water
4. Type of industry
5. History of compliance problems and toxic impacts
6. Existing data on toxic pollutants - Reasonable Potential Analysis

1. Applicable Standards, Designated Uses and Impairments of Receiving Water

The *CNMI Water Quality Standards* and various amendments establish water quality criteria for marine waters which for the protection of designated beneficial uses. The *CNMI Water Quality Standards* categorize Tanapag Harbor as Class A marine waterbody. Class A marine waters are protected for recreational and aesthetic enjoyment. Other uses are allowed as long as they are compatible with protection and propagation of fish, shellfish, and wildlife, and with compatible recreation with risk of water ingestion by humans. The *CNMI Water Quality Standards* further specify: "Such waters shall be kept clean of solid waste, oil and grease, and shall not act as receiving waters for any effluent which has not received the best degree of treatment of control practicable under existing technology and economic conditions and compatible with standards established for this class."

CNMI BECQ's 2022 Integrated Report and Clean Water Act Section 303(d) List of Impaired Waters include the West Takpochau (north) segment as impaired due to enterococcus, nitrate, orthophosphate in surface waters and lead (in sediments). Tanapag Harbor is within the West Takpochau (north) segment of coastal waters.

BECQ adopted the Saipan Coastal Bacteria TMDL in 2017 and EPA approved the TMDL in 2018. The enterococcus TMDL applies to Class A waters in Tanapag Harbor. The TMDL lists the following sources of bacteria into the West Takpochau (north) segment: sanitary sewer overflows, wastewater treatment plant, marine and recreational boating, runoff from roads, and coastal zone erosion.

The TMDL contain wasteload allocations for all permitted dischargers including this facility (NPDES Permit No. MP0020397 – Mobil Oil Mariana Islands, Inc,). The effluent limits in this permit are based on the wasteload allocations included in the TMDL, specifically the geomean value (35 MPN/100mL) and statistical threshold value (130 MPN/100mL). Pursuant to federal regulations at 40 CFR § 122.44(d)(1)(B)(vii), the effluent limits included in this permit are consistent with the assumptions and rationale for the wasteload allocation(s) for this facility provided in the TMDL. Those enterococcus specific wasteload allocations have been included in determining the effluent limitations in this permit; applicable dilution has also been included.

The TMDL included an implicit margin of safety based on the "conservative assumption, primarily, the application of WQS without accounting for mixing in the receiving water which would lead to dilution of [enterococcus] concentrations."

2. Applicable Ocean Discharge Criteria

EPA's Ocean Discharge Criteria establish guidelines for the issuance of NPDES permits for discharges into territorial seas, the contiguous zone, and the ocean (40 CFR § 125.120). Territorial seas are defined as the waters between the shore and 12 nautical miles offshore. Ocean Discharge Criteria are applicable because the permit authorizes discharge into a territorial sea. Ocean Discharge Criteria establish that point source discharges into territorial

seas may not cause unreasonable degradation to the marine environment (40 CFR § 125.123). Discharges that are in compliance with section 301(g), 301(h), or 316(a) variance requirements or State water quality standards are presumed to be in compliance with Ocean Discharge Criteria (40 CFR § 125.122(b)). This discharge is designed to be in compliance with *CNMI Water Quality Standards*, so the discharge is in compliance with Ocean Discharge Criteria.

3. Dilution in the Receiving Water

Part 500 of the *CNMI Water Quality Standards* allows BECQ to authorize mixing zones in receiving waters if certain conditions are met. A mixing zone is generally expressed as a limited area or volume of water where initial dilution of a discharge takes places and where certain water quality criteria may be exceeded. Per the *CNMI Water Quality Standards*, a mixing zone means an area of specified dimensions where a discharge undergoes initial dilution within a specified sub-area of the mixing zone in the immediate vicinity of the discharge point (zone of initial dilution, or ZID), then undergoes secondary mixing to the limit of the mixing zone boundary. A mixing zone is an allocated impact zone where water quality criteria can be exceeded but where acutely toxic conditions are prevented (except as defined within the ZID) and where public health and welfare are not endangered.

The permittee submitted a *Mixing Analysis for Mobil Oil Saipan Terminal (NPDES Permit No. MP0020397)* (June 2017) and *Addendum Mixing Analysis for Mobil Oil Saipan Terminal (NPDES Permit No. MP0020397)* (September 2017) that evaluated available dilution using CORMIX software. The computer modeling was performed based on characteristics of the outfall, the effluent, and the receiving water, subject to the input limitations of the CORMIX software. The permittee re-submitted this report with a cover letter (April 2023) to be considered as part of the permit renewal. EPA is awaiting approval from BECQ to authorize the mixing zone.

EPA is including a dilution factor based on the permittee's application. The 63.8-meter (209 ft) mixing zone (dilution factor of 2.2) is for pH, arsenic, copper, manganese, zinc, benzene, ammonia, enterococci, and chronic toxicity; and 18.95-meter mixing zone (dilution factor of 13.1) is for phosphorus. The difference is due to the influence of tides and the resulting height of the surface water at time of discharge. The 63.8-m mixing zone models the CPA sewer at the same height as the water surface, which is likely to occur 1% of the time (i.e. maximum high tide of 3 feet). The 18.95-meter mixing zone models the discharge as a short free fall into the water, which occurs during a normal tide. Because the free fall results in an increase in discharge velocity, dilution is higher and mixing occurs faster. However, all other modelled parameters are the same (i.e. flow rate of 600 gpm, density, temperature, etc.). Therefore, both modeled scenarios represent reasonable worst-case scenarios.

CNMI BECQ provided an approval of the mixing zone that included pollutant specific dilution values on April 16, 2025.

4. Type of Industry

According to EPA's Technical Support Document for the 2004 Effluent Guidelines Program Plan (2004), typical pollutants for petroleum bulk storage terminals are oil & grease, total petroleum hydrocarbons, biochemical oxygen demand, total organic carbon, ammonia, total suspended solids, phenols, total dissolved solids, naphthenic acids, aromatics (benzene, toluene, ethylbenzene, xylene), and surfactants. Benzene, toluene, ethylbenzene and xylene are the more volatile components of petroleum hydrocarbons. These pollutants are usually present in petroleum products, and are most associated with petroleum products with lighter ranges of hydrocarbons, such as gasoline.

Although all gasoline currently stored at the facility is unleaded, the discharger believes lead may be present as a residual in the storage tanks from historic terminal operations. Similarly, the discharger believes arsenic, copper, chromium, and nickel may be present as natural soil constituents and as corrosion products of metal vessels, pipes, and structures.

5. History of Compliance Problems and Toxic Impacts

The facility did not report any leaks or spills during the previous permit term. EPA inspections in 2019 or 2025 did not note any areas of concern for a formal compliance determination or violation.

6. Existing Data on Toxic Pollutants

For pollutants with effluent data available, EPA has conducted a reasonable potential analysis based on statistical procedures outlined in EPA's *Technical Support Document for Water Quality-based Toxics Control* herein after referred to as EPA's TSD (EPA 1991). These statistical procedures result in the calculation of the projected maximum effluent concentration based on monitoring data to account for effluent variability and a limited data set. The projected maximum effluent concentrations were estimated using a coefficient of variation and the 99 percent confidence interval of the 99th percentile based on an assumed lognormal distribution of daily effluent values (sections 3.3.2 and 5.5.2 of EPA's TSD). EPA calculated the projected maximum effluent concentration for each pollutant using the following equation:

Projected maximum concentration = C_e × *reasonable potential multiplier factor.*
Where, "C_e" is the reported maximum effluent value and the multiplier factor is obtained from Table 3-1 of the TSD.

Table 4. Summary of Reasonable Potential Statistical Analysis:

Parameter[1]	Maximum Observed Concentration	*n*	RP Multiplier	Projected Maximum Effluent Concentration	Most Stringent Water Quality Criterion[2][3]	Statistical Reasonable Potential?
TSS	19 mg/L	21	2.3	43.7 mg/L	88 mg/L	N
Ammonia	0.119 mg/L	1	13.2	1.57 mg/L	0.44 mg/L	Y
pH	7.1 to 9.0	18	--	7.1 to 9.0	7.2 to 9.2[4]	Y
Arsenic	0.0059 mg/L	21	2.3	0.0136 mg/L	0.011 mg/L	Y
Chromium (total)	0.0005 mg/L	6	3.8	0.0019 mg/L	--[5]	N
Copper	0.0239 mg/L	21	2.3	0.0545 mg/L	0.011 mg/L	Y
Lead	0.0068 mg/L	21	2.3	0.0156 mg/L	0.462 mg/L	N
Zinc	0.221 mg/L	21	2.3	0.5083 mg/L	0.198 mg/L	Y
Benzene	0.173 mg/L	21	2.3	0.398 mg/L	0.0352 mg/L	Y
Oil and Grease	2.88 mg/L	21	2.3	6.62 mg/L	33 mg/L	N
Phosphorous (total)	2.9 mg/L	19	2.4	6.9 mg/L	0.22 mg/L	Y
Manganese	0.181 mg/L	19	2.4	0.434 mg/L	0.22 mg/L	Y
Temperature[6]	9.9 °C	12	--	9.9 °C	1.0 °C[5]	Y
Salinity	139 ppm	12	2.8	389	[7]	N
Enterococci	1986.3 MPN/100mL	8	3.3	6554.8	286 MPN/100mL	Y

(1) For purposes of RP analysis, parameters measured as Non-Detect are considered to be zeroes. Only pollutants detected are included in this analysis.

(2) Water quality criterion (acute)has been adjusted with applicable dilution credit. (2.2:1) for TSS, ammonia, arsenic, copper, lead, zinc, benzene, oil and grease, manganese, and enterococci. (13.1:1) for phosphorous.

(3) Acute aquatic life criteria was used instead of chronic aquatic life criteria based on the intermittent and short-term nature of the discharge.

(4) Water quality criteria adjusted based on mixing zone analysis submitted by the permittee.

(5) Class A waters such as Tanapag Harbor do not have a water supply designated use so maximum contaminant levels do not apply. EPA does not have criteria for total chromium. Samples for chromium (III) and chromium (VI) were below the detection limit.

(6) Water quality criterion for temperature is that water temperature shall not vary by more than 1.0 °C from the ambient conditions.

(7) Water quality criterion for salinity in Class A marine waters is to not change the ambient conditions more than 10%. Modeled salinity is 34,600 ppm. The small volume of discharge and small salinity concentration will have a minimal impact on ambient conditions.

C. Rationale for Numeric Effluent Limits (EL) and Monitoring (M)

EPA evaluated the typical pollutants expected to be present in the effluent and selected the most stringent of applicable technology-based standards or water quality-based effluent limitations. For pollutants with effluent limits, the permit only includes daily maximum effluent limit because the discharge duration is short (maximum 90 minutes per day) and such discharges will quickly mix with receiving waters as well as tidal action that occurs on 6 hr. timespan; all of this indicates aquatic organisms have short term exposure to discharges and is consistent with duration associated with acute criteria. The maximum effluent limit is appropriately included to match the applicable acute criteria to protect aquatic life. Where effluent concentrations of toxic parameters are unknown or are not reasonably expected to be discharged in concentration that have the reasonable potential to cause or contribute to water quality violations, EPA may establish monitoring requirements in the permit. Where monitoring is required, data will be re-evaluated, and the permit may be re-opened to incorporate effluent limitations as necessary.

Discharge Flow (M)

The typical treatment technology employed by petroleum bulk storage terminals for wastewater is usually an oil-water separator. This device separates the lower-density oils from water, resulting in an oil phase above the oil-water interface and a heavier particulate phase (i.e., sludge) on the bottom of the separator. Accordingly, the sizing of an oil-water separator is based upon: water-flow rate; density of oil to be separated; desired percentage removal of oil; and the operating temperature range. To ensure proper operation of installed oil-water separators, such that the oil and/or particulate phases are not entrained to the waterway, it is important that the flow through the separator be maintained at or below the maximum design flow rate of the separator. Therefore, the draft permit contains a flow monitoring requirement and shall be taken as a field measurement at the time of sampling during each discharge.

Oil and Grease (EL)

The permit contains a technology-based daily maximum effluent limit of 15 mg/L for oil and grease. The effluent limit for oil and grease is based on BPJ since (1) there are no applicable effluent limitation guidelines and performance standards for oil and grease, and (2) similar industrial facilities have shown that 15 mg/L can be easily achieved by an oil-water separator.

Section 402(a)(1) of the Clean Water Act (CWA) provides for the establishment of BPJ-based effluent limits when effluent limitation guidelines and performance standards are not available for a pollutant of concern. The limit is consistent with similar facilities that treat oily wastewater and stormwater. Narrative water quality-based limits for oil and grease also are included since oil and grease are commonly found in wastewater and stormwater from similar bulk petroleum storage facilities.

TSS (EL)

EPA proposes a technology-based effluent limitation for TSS based on BPJ of 100 mg/L as a daily maximum. The effluent limit for TSS is based on BPJ since (1) there are no applicable effluent limitation guidelines and performance standards for TSS, and (2) TSS is a good indicator

of effluent stormwater quality. Specifically, the discharge of heavy metals and polycyclic aromatic hydrocarbons (PAHs) can be reduced by regulating the amount of suspended solids discharged.

Section 402(a)(1) of the CWA provides for the establishment of BPJ-based effluent limits when effluent limitation guidelines and performance standards are not available for a pollutant of concern. The limit is also consistent with similar facilities that treat oily wastewater and stormwater and is consistent with EPA's MSGP. *See* table 5 below. Narrative water quality-based limits for TSS also are included consistent with the *CNMI Water Quality Standards*.

Table 5. Effluent Limitations for TSS in NPDES Permits Authorizing Discharges from Oil Terminals/Tank Farms in several States.

State	Monthly Average	Daily Maximum
Maine[(1)]	50 mg/L	100 mg/L
Massachusetts[(2)]	30 mg/L	100 mg/L
Tennessee[(3)]	30 mg/L	45 mg/L
South Carolina[(4)]	--	100 mg/L
California[(5)]	--	75 mg/L
Washington[(6)]	30 mg/L	45 mg/L

(1) https://www3.epa.gov/region1/npdes/permits/2010/finalme0022225permit.pdf
(2) https://www3.epa.gov/region1/npdes/permits/2014/finalma0001929permit.pdf and https://www3.epa.gov/region1/npdes/permits/draft/2014/draftma0001091permit.pdf
(3) http://in.gov/idem/cleanwater/files/permit_notice_petroleum_draft_factsheet.pdf
(4) https://www.scdhec.gov/environment/docs/scg340000.pdf
(5) http://63.199.216.6/permits/docs/6297_R4-2016-0219_WDR_PKG.pdf and http://63.199.216.6/permits/docs/7873_R4-2016-0142_WDR_PKG.pdf
(6) https://fortress.wa.gov/ecy/wqreports/public/WQPERMITS.document_pkg.download_document?p_document_id=119992 and https://fortress.wa.gov/ecy/wqreports/public/WQPERMITS.document_pkg.download_document?p_document_id=133872

pH (EL)

Reasonable potential exists for pH since the minimum effluent data is below the minimum effluent limit set in the previous permit of 7.2. Therefore, an effluent limit is included in the permit. The permit limit was based on the mixing zone study submitted by the permittee. From the permittee's mixing zone analysis, the predicted pH values at the edge to the mixing zone (based on the ZID) meet water quality standards. With an effluent limit of 7.2 to 9.2 S.U., the calculated pH range is 7.71 to 8.42 S.U. after mixing is complete. This calculated range of 7.71 and 8.42 S.U. from the mixing zone analysis is within the pH water quality standard range of 7.6 to 8.6 SU. The pH effluent limits include a dilution factor of 2.2 based on the 63.8-meter (209 ft) mixing zone.

Figure 1(a) and 1(b). Verifying pH WQS at edge of mixing zone (dilution factor 2.2) using pH effluent limits of 7.2 S.U. (left) to 9.2 S.U. (right)

Calculation of pH of a Mixture in Marine Water

Based on the CO2SYS program (Lewis and Wallace, 1998),
http://cdiac.esd.ornl.gov/oceans/co2rprt.html

INPUT	
1. MIXING ZONE BOUNDARY CHARACTERISTICS	
Dilution factor at mixing zone boundary	2.2
Depth at plume trapping level (m)	0.100
2. BACKGROUND RECEIVING WATER CHARACTERISTICS	
Temperature (deg C):	28.90
pH:	7.90
Salinity (psu):	34.50
Total alkalinity (meq/L)	2.36
3. EFFLUENT CHARACTERISTICS	
Temperature (deg C):	29.00
pH:	7.20
Salinity (psu)	0.50
Total alkalinity (meq/L):	2.00
4. CLICK THE 'Calculate" BUTTON TO UPDATE OUTPUT RESULT:	Calculat
OUTPUT	
CONDITIONS AT THE MIXING ZONE BOUNDARY	
Temperature (deg C):	28.95
Salinity (psu)	19.05
Density (kg/m^3)	1010
Alkalinity (mmol/kg-SW):	2.17
Total Inorganic Carbon (mmol/kg-SW):	2
pH at Mixing Zone Boundary:	**7.71**

Figure 1(a)

Calculation of pH of a Mixture in Marine Water

Based on the CO2SYS program (Lewis and Wallace, 1998),
http://cdiac.esd.ornl.gov/oceans/co2rprt.html

INPUT	
1. MIXING ZONE BOUNDARY CHARACTERISTICS	
Dilution factor at mixing zone boundary	2.2
Depth at plume trapping level (m)	0.100
2. BACKGROUND RECEIVING WATER CHARACTERISTICS	
Temperature (deg C):	28.90
pH:	7.90
Salinity (psu):	34.50
Total alkalinity (meq/L)	2.36
3. EFFLUENT CHARACTERISTICS	
Temperature (deg C):	29.00
pH:	9.20
Salinity (psu)	0.50
Total alkalinity (meq/L):	2.00
4. CLICK THE 'Calculate" BUTTON TO UPDATE OUTPUT RESULTS -->	Calculat
OUTPUT	
CONDITIONS AT THE MIXING ZONE BOUNDARY	
Temperature (deg C):	28.95
Salinity (psu)	19.05
Density (kg/m^3)	1010
Alkalinity (mmol/kg-SW):	2.17
Total Inorganic Carbon (mmol/kg-SW):	2
pH at Mixing Zone Boundary:	**8.42**

Figure 1(b)

Temperature (EL)

Reasonable potential exists for temperature because the maximum variance (9.9 °C) from ambient water quality data (Sea Temperature) exceeds the water quality standard (1.0 °C). Therefore, an effluent limit is included in the permit.

The ambient water quality data used in the analysis is for seawaters surrounding Saipan and may not actually be the temperature in the receiving water (Tanapag Harbor). A new monitoring station (USGS) started reporting temperature data in December 2023. This data will be useful in future determinations of ambient temperature.

Phosphorous, Total (EL)

Reasonable potential exists for phosphorus since the maximum effluent concentration (2.9 mg/L) is higher than the water quality criterion of 0.22 mg/L (adjusted for dilution). Therefore, an effluent limit is included in the permit. The total phosphorus effluent limit includes a dilution factor of 13.1 based on the 63.8-meter (209 ft) mixing zone.

Ammonia (M)

Data shows that the discharge has the potential to exceed applicable ammonia water quality standards. The facility does not engage in activities that would generate large sources of ammonia. Only one sample was reported in the application. Annual monitoring will provide additional information to see if an effluent limit will be required in the next permit.

Metals: Arsenic, Copper, Manganese, and Zinc (EL)

The *CNMI Water Quality Standards* for aquatic life reference EPA's aquatic life criteria promulgated under section 304(a) of the CWA. All metals were compared to EPA's aquatic life criteria, except for arsenic. The *CNMI Water Quality Standards* include a numeric standard for arsenic of 5 µg/L. Using the procedures in EPA's TSD (1991), reasonable potential exists for arsenic, copper, manganese, and zinc, and therefore, effluent limits are included for these metals. The effluent limits incorporate a dilution factor of 2.2 based on a 63.8-meter (209 ft) mixing zone.

Lead (M)

Using the procedures in EPA's TSD (1991), reasonable potential did not exist for lead. Based on the intermittent nature and short-term duration of the discharge, acute aquatic criteria (210 µg/L) was chosen for the RPA instead of chronic aquatic criteria (8.1 µg/L). This is a change from the analysis performed in the previous permit cycle. As a result of using the acute aquatic criteria, reasonable potential did not exist for lead. Monitoring is required because the discharger believes lead may be present as a residual in the storage tanks from historic terminal operations. Note that all gasoline currently stored at the facility is unleaded.

Benzene (EL)

Refined petroleum products contain numerous types of hydrocarbons. As common with bulk petroleum storage facilities, benzene, toluene, ethylbenzene and xylene ("BTEX") were detected in various concentrations. EPA is limiting benzene as an indicator parameter for BTEX. Rather than regulating every compound detected in the discharge, limits may be established for compounds that would be the most difficult to remove in oil-water separators or demonstrate the greatest degree of toxicity. Benzene was selected because of the BTEX compounds, benzene has the highest solubility, is one of the most toxic constituents, and is found at relatively high concentrations in light distillates and diesel fuels.

EPA is establishing an effluent limit for benzene based on water quality. Using the procedures in EPA's TSD (1991), reasonable potential exists and therefore, an effluent limit is included in the permit for benzene. The permit contains a benzene effluent limit based on a conservative human health criterion of 16 µg/L. The effluent limit incorporates a dilution factor of 2.2 based on a 63.8-meter (209 ft) mixing zone.

EPA believes this value is protective of the recreation designated use of the receiving water. Most people can begin to taste benzene in water at 0.5 to 4.5 ppm. EPA has set 5 ppb as the maximum permissible level of benzene in drinking water. While this receiving water is not designated as a drinking water source, EPA has set a goal of 0 ppb for benzene in both drinking water and in other waterbodies (i.e. rivers and lakes) because benzene can cause leukemia.

Additionally, the selected human health criterion is consistent with EPA's 2015 update to the recommended benzene water quality criteria, which states that the lower value should be used based on the carcinogenic effects of benzene. This criterion was developed to protect humans from long-term (i.e. lifetime) exposures to waterborne chemicals and are not intended to reflect fluctuations in bioaccumulation over short periods (i.e. a few days). Therefore, this criterion is applicable despite the intermittent nature of the facility's discharge. See U.S. Department of Health and Human Services Toxicological Profile for Benzene (2007) and U.S EPA Update of Human Health Ambient Water Quality Criteria: Benzene (2015).

Enterococci (EL)

The *CNMI Water Quality Standards* establish criteria for marine waters for enterococcus. The reasonable potential analysis demonstrated a potential to exceed water quality standards for enterococcus. Therefore, limitations have been established consistent with the applicable water quality standards for enterococcus as the representative indicator pathogen.

While the facility does not engage in activities that would be expected to generate large sources of bacteria, stormwater runoff can readily transport bacteria from surfaces susceptible to the waste products of animals or pathogens, which attach to organic and inorganic particles. As described in Part III. Description of the Receiving Water, the harbor is impaired for enterococci, and EPA approved a bacteria TMDL for Saipan on January 10, 2018.

The effluent limit is based on single sample maximum value (130 MPN/100mL) listed in the TMDL.

BOD and Salinity (M)

No limits are established for BOD or salinity. However, monitoring is required since these pollutants are common in tank bottom water draws. Salinity monitoring is included to assess the salt levels in the process wastewater being discharged. Monitoring BOD will help determine whether the narrative permit requirements are being met. BOD shall be monitored quarterly. Salinity shall be taken as field measurements at the time of sampling during each discharge.

Total Polycyclic Aromatic Hydrocarbons (M)

Polycyclic aromatic hydrocarbons ("PAHs") are a group of organic compounds that form through the incomplete combustion of hydrocarbons and are present in petroleum derivatives and residuals. There are 16 PAH compounds identified as priority pollutants. Group I and Group II PAHs were not detected above the laboratory minimum level ("MLs"). However, MLs are often two to six times the recommended water quality criteria. Therefore, EPA cannot assume PAHs are not present above the 304(a) water quality criteria where a sample is non-detect, but the ML is insufficient. Therefore, EPA is requiring monitoring for Group I and Group II PAHs once per year. Monitoring data shall be reported for each group as well as for each pollutant. The permittee also is required to report the ML for each pollutant not detected above the ML.

- Group I PAHs are comprised of: 1) benzo(a)anthracene, 2) benzo(a)pyrene, 3) benzo(b)fluoranthene, 4) benzo(k)fluoranthene, 5) chrysene, 6) dibenzo(a,h)anthracene, and 7) indeno(1,2,3-cd)pyrene.

- Group II PAHs are comprised of: 1) acenaphthene, 2) acenaphthylene, 3) anthracene, 4) benzo(g,h,i)perylene, 5) fluoranthene, 6) fluorene, 7) naphthalene, 8) phenanthrene, and 9) pyrene.

Dissolved Oxygen (M)

Section § 65-130-415 of the *CNMI Water Quality Standards* establishes a requirement that the concentration of dissolved oxygen in all waters shall not be less than 75% saturation. Monitoring is required to show that the discharge is meeting this criteria. Dissolved oxygen shall be monitored quarterly.

D. Anti-Backsliding

Section 402(o) and 303(d)(4) of the CWA and 40 CFR § 122.44(l)(1) prohibits the renewal or reissuance of an NPDES permit that contains effluent limits and permit conditions less stringent than those established in the previous permit, except as provided in the statute and regulation.

The permit removes the effluent limit for lead. This is based on new information (effluent monitoring results) gathered over the course of the prior permit timeframe. Since the receiving water is in attainment for lead based on a water quality standard, the effluent limit can only be removed if consistent with CNMI's antidegradation policy. See Part II.E of the Fact Sheet for antidegradation analysis. Since the removal of the effluent limit is consistent with Section 303(d)(4) and CNMI's antidegradation policy, there is no backsliding.

The permit increases the effluent limit for copper from 7.3 µg/L to 8.2 µg/L to correct a mathematical error in the previous permit issuance. Since the receiving water is in attainment for copper based on a water quality standard, the effluent limit can only be relaxed if consistent with CNMI's antidegradation policy. See Part II.E of the Fact Sheet for antidegradation analysis. Since the relaxed effluent limit is consistent with CNMI's antidegradation policy, there is no backsliding.

All other effluent limits are retained from the prior permit to this permit.

E. Antidegradation Policy

EPA's antidegradation policy under CWA § 303(d)(4) and 40 CFR § 131.12 and *CNMI Water Quality Standards* require that existing water uses and the level of water quality necessary to protect the existing uses be maintained.

As described in this document, the permit establishes effluent limits and monitoring requirements to ensure that all applicable water quality standards are met. The permit retains an approved mixing zone, therefore these limits include dilution values applied at the end of pipe. A priority pollutant scan has been conducted of the effluent, demonstrating that most pollutants are discharged below detection levels.

The permit removes an effluent limit for lead and increases the effluent limit for copper from 7.3 µg/L to 8.2 µg/L. Section § 65-130-010 of the *CNMI Water Quality Standards* lists the Anti-degradation policy. The achievement of water quality standards is in the best interest of the

protection of public health and the environment. EPA analyzed the discharge data to determine if the discharge would lower water quality below that which is necessary to maintain and protect designated uses in the receiving water. EPA selected the acute aquatic criteria for reasonable potential analysis based on the intermittent nature of the discharge.

The reasonable potential analysis demonstrated there is no reasonable potential for lead to exceed the most stringent water quality criterion for lead. The determination of no reasonable potential shows the discharge will not lower the water quality below that which is necessary to maintain and protect designated uses in the receiving water. Quarterly monitoring for lead is required in the permit.

The reasonable potential analysis demonstrated there is reasonable potential for copper to exceed the most stringent water quality criterion for copper. This determination requires the establishment of an effluent limit. The effluent limit is based on acute aquatic water quality criterion intended to maintain and protect designated uses. Although the numeric value of the new effluent limit for copper is higher than the one in the previous permit, the discharge will not lower the water quality below that which is necessary to maintain and protect designated uses in the receiving water.

The CNMI Anti-degradation policy has additional requirements to satisfy in the analysis. The discharge is not an untreated discharge to a source of drinking water. The discharge is treated on site through an oil-water separator prior to discharge. The discharge does not affect the existing uses of wetlands.

Aside from copper, this permit does not allow increased pollutant levels over the previous permit. Therefore, due to the treatment and water quality-based effluent limitations, the discharge is not expected to adversely affect receiving water bodies or result in any degradation of water quality.

VII. OTHER LIMITATIONS

CNMI Water Quality Standards (2021) contain narrative water quality standards applicable to the receiving water. Therefore, the permit incorporates other limits for the discharge in Permit Part I.A.

VIII. MONITORING AND REPORTING REQUIREMENTS

The permit requires the permittee to conduct monitoring for all pollutants or parameters where effluent limits have been established, at the minimum frequency specified. Additionally, where effluent concentrations of toxic parameters are unknown or where data are insufficient to determine reasonable potential, monitoring may be required for pollutants or parameters where effluent limits have not been established.

A. Effluent Monitoring and Reporting

The permittee shall conduct effluent monitoring to evaluate compliance with the draft permit conditions. The permittee shall perform all monitoring, sampling and analyses in accordance with the methods described in the most recent edition of 40 CFR § 136, unless otherwise specified in the draft permit. All monitoring data shall be reported on monthly DMRs and submitted quarterly as specified in the draft permit. All DMRs are to be submitted electronically to EPA using NetDMR.

B. Receiving Water Visual Monitoring for Oily Sheen, Foam, Discoloration, or Floating Debris

Additional parameter monitoring is required to determine compliance with narrative CNMI Water Quality Standards. The permittee shall notify EPA, CNMI BECQ, and NMFS PIRO of receiving water conditions at Outfall 001 if oily sheen, foam, discoloration, or floating debris occurs. Receiving water monitoring shall be conducted once per quarter while there is discharge from the facility and shall be submitted as an attachment to the facility's DMRs.

Because discharge at the CPA storm sewer outfall 001 does not solely originate from the Mobil facility, but also from other Port tenants, if the permittee believes that any sheen, foam, discoloration, or floating debris is not originating from the Mobil facility, an explanation for this reasoning shall be included. Receiving water visual monitoring may be conducted and submitted by the Saipan Sea Port, instead of by Mobil, if it satisfies the monitoring requirements in this permit. Receiving water visual monitoring is necessary to assess compliance with water quality-based effluent limits for Tanapag Harbor (Part VI of this fact sheet).

C. Priority Toxic Pollutants Scan

A Priority Toxic Pollutants scan shall be conducted in the fourth year of the five-year permit term to ensure that the discharge does not contain toxic pollutants in concentrations that may cause or contribute to a violation of water quality standards. The permittee shall conduct the priority pollutants scan concurrent with an annual whole effluent toxicity test. Permit Attachment D provides a complete list of Priority Toxic Pollutants, including identifying the volatile compounds that should be collected via grab sample procedures. The permittee shall perform all effluent sampling and analyses for the priority pollutants scan in accordance with the methods described in the most recent edition of 40 CFR § 136, unless otherwise specified in the permit or by EPA. This monitoring is consistent with Priority pollutants listed in 40 CFR § 131.36.

D. Whole Effluent Toxicity (WET) Requirements

The CWA requires that all waters be suitable for aquatic life, which includes the protection and propagation of fish, shellfish, and wildlife. As evidence that CWA requirements protecting aquatic life from chronic and acute toxicity are met in surface waters receiving the NPDES discharge, samples are collected from the effluent and tested for toxicity in a laboratory using EPA's WET methods. These aquatic toxicity test results are used to determine if the NPDES effluent causes toxicity to aquatic organisms. Toxicity testing is important because for scores of individual chemicals and compounds, chemical-specific environmentally protective levels for

toxicity to aquatic life have not been developed, or set as water quality standards. In due course, some such chemicals and compounds can eventually make their way into effluents and their receiving surface waters. When this happens, toxicity tests of effluents can demonstrate toxicity due to present, but unknown, toxicants (including possible synergistic and additive effects), signaling a water quality problem for aquatic life.

EPA's WET methods are systematically-designed to expose sensitive life stages of a test species (e.g., fish, invertebrate, algae) to both an NPDES effluent sample and a control sample. During the toxicity test, the test organism may show a difference in biological response, such as; eggs not fertilized, early life stages that grow too slowly or abnormally, or death. At the end of a toxicity test, the different biological responses of the organisms in the effluent group and the organisms in the control group are summarized using common descriptive statistics (e.g., means, standard deviations, coefficients of variation). The effluent and control groups are then compared using an applicable inferential statistical approach (i.e., hypothesis testing or point estimate model) chosen by the permitting authority and specified in the NPDES permit. The chosen statistical approach is compatible with both the experimental design of the WET method and the applicable toxicity water quality standard. Based on this statistical comparison, a toxicity test will demonstrate that the effluent is either toxic or not toxic, in relation to the permit's toxicity limit for the effluent. EPA's WET methods are specified under 40 CFR § 136 and/or in applicable water quality standards.

In the permit, EPA requires the permittee to analyze WET test data using the Test of Significant Toxicity (TST) statistical approach. This statistical approach is described in *National Pollutant Discharge Elimination System Test of Significant Toxicity Technical Document* (EPA 833-R-10-003, 2010; TST Technical Document) and Denton DL, Diamond J, and Zheng L. 2011. Test of significant toxicity: A statistical application for assessing whether an effluent or site water is truly toxic. *Environ Toxicol Chem* 30:1117-1126. This statistical approach supports important choices made within a toxicity laboratory which favor quality data and EPA's intended levels for statistical power when true toxicity is statistically determined to be unacceptably high (≥ 25 Percent Effect (PE)), or acceptably low (< 10 PE). Example choices are practices supporting healthy test organisms, increasing the minimum recommended replication component of the WET method's experimental design (if needed), technician training, etc. TST results do not often differ from other EPA-recommended statistical approaches using hypothesis testing (Diamond D, Denton D, Roberts J, Zheng L. 2013. Evaluation of the Test of Significant Toxicity for determining the toxicity of effluents and ambient water samples. *Environ Toxicol Chem* 32:1101-1108.). The TST maintains EPA's desired low false positive rate for WET methods—the probability of declaring toxicity when true toxicity is acceptably low ≤ 5%—when quality toxicity laboratories conduct toxicity tests (TST Technical Document; Fox JF, Denton DL, Diamond J, and Stuber R. 2019. Comparison of false-positive rates of 2 hypothesis-test approaches in relation to laboratory toxicity test performance. *Environ Toxicol Chem* 38:511-523.). Note: The false positive rate is a long-run property for the toxicity laboratory conducting a WET method. A low false positive rate is indicted by a low long-run toxicity laboratory control coefficent of variation for the test species/WET method, using a minimum of 30 to 50 toxicity tests.

For ocean discharges governed by CWA § 403(c) and implementing regulations, the choice of TST is also based on EPA's recommendation to apply statistical considerations linking NPDES monitoring data, performance, and decision-making prior to data collection. See *CWA § 403: Procedural and Monitoring Guidance* (EPA 842-B-94-003, 1994), pages 37, 38, 209. Examples of such statistical considerations include defining acceptable type I (α) and type II (β) errors[1]; applying power analysis to evaluate the appropriate number of replicates (n) based on a prior knowledge of variation observed in historical data; etc.). Accordingly, statistical rigor (trustworthiness) is considered by EPA under 40 CFR § 125.122(a) in choosing the TST statistical approach for this permit because such components are explicitly considered.

EPA has added the requirement for monitoring and reporting chronic toxicity, so that effluent toxicity can be assessed in relation to CWA requirements for the permitted discharge (see Part I, Table 2 in NPDES permit).

Permit Part II.C.3 describes the options for WET method and test species to be used for this effluent monitoring, requiring the permittee to conduct chronic toxicity testing.

For NPDES samples for toxicity testing, the sample hold time begins when the 24-hour composite sampling period is completed (or the last grab sample in a series of grab samples is taken) and ends at the first time of sample use (initiation of toxicity test). 40 CFR § 136.3(e) states that the WET method's 36-hour hold time cannot be exceeded unless a variance of up to 72-hours is authorized by EPA. In a June 29, 2015 inter-office memorandum, EPA Region 9 authorized a hold time variance of up to 72-hours applicable only to Pacific Island Territory permittees **which ship the NPDES sample to the continental U.S. for toxicity testing**, with conditions (see NPDES permit).

In accordance with 40 CFR § 122.44(d)(1)(ii), in setting the permit's levels for chronic toxicity and conditions for discharge, EPA is using a test species/chronic short-term WET method and a discharge Instream Waste Concentration (IWC) representing conservative assumptions for effluent dilution necessary to protect receiving water quality. The IWC is a discharge-specific term based on the permit's authorized mixing zone or initial dilution. Generally, the dilution model result "S" from Visual Plumes/Cormix is used. S is the volumetric dilution factor, i.e. 1 volume effluent is diluted with S − 1 volumes surface water) = [(Ve + Va) /

[1] Type I error (α) is the error of rejecting the null hypothesis that should have been accepted. Type II (β) error is the error of accepting the null hypothesis that should have been rejected. For toxicity tests, the true population mean (μ) refers to the mean for a theoretical statistical population of results from indefinite repetition of toxicity tests on the same control water and sample (e.g., a 24-hour composite sample of effluent). For an individual toxicity test, there must be a statistical analysis to determine if the null hypothesis is rejected in favor of the alternative hypothesis—in other words, that the difference in sample and control means is real and not simply reflective of random variation among the tested organisms.

Ve]. Following the mass balance equation, if the dilution ratio D = Qs / Qe, then [(Qe + Qs) / Qe] = 1 + D = S.

For this discharge, S = 2.2 (i.e., authorized dilution). The discharge-specific IWC = 1 to 2.2 dilution (1:2.2, 1/2.2) = 45% effluent. The IWC made by the toxicity laboratory is mixed as 1 part solute (effluent) to 1.2 parts dilutant for a total of 2.2 parts.

The TST's null hypothesis for chronic toxicity (H_o) is: In-stream Waste Concentration (IWC) mean response (% effluent) ≤ 0.75 Control mean response. The TST's alternative hypothesis is (H_a): IWC mean response (% effluent) > 0.75 Control mean response. For this permit, results obtained from a single chronic toxicity test are analyzed using the TST statistical approach, where the required chronic toxicity IWC for Discharge Point Number 001 is 45% effluent.

Species sensitivity screening for chronic toxicity is not an automatic requirement in this permit. However, the permit retains a species sensitivity screening condition as an option for the permitting authority to exercise, particularly when the quality of the permitted discharge has changed, or is expected to change, during the permit term. Additionally, species may need to be selected based on timing of the year.

IX. SPECIAL CONDITIONS

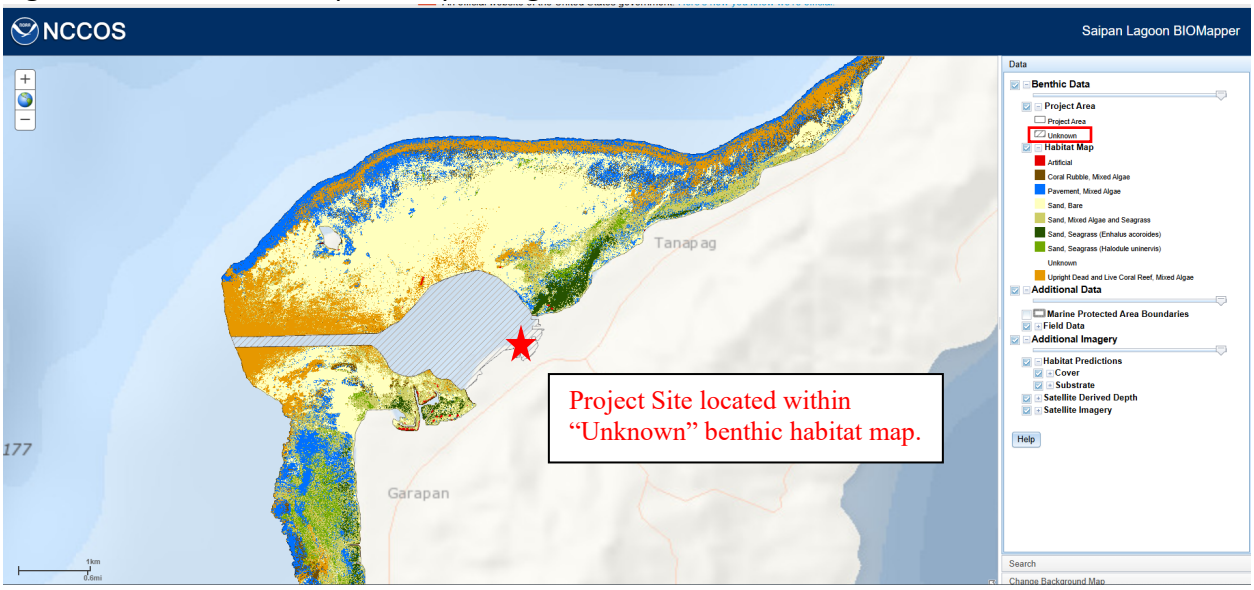
A. Development and Implementation of Best Management Practices

Pursuant to 40 CFR § 122.44(k)(4), EPA may impose Best Management Practices (BMPs) which are "reasonably necessary…to carry out the purposes of the Act." The pollution prevention requirements or BMPs in the draft permit operate as technology-based limitations on effluent discharges that reflect the application of Best Available Technology and Best Control Technology. Therefore, the draft permit requires that the permittee develop (or update) and implement a Pollution Prevention Plan with appropriate pollution prevention measures or BMPs designed to prevent pollutants from entering Tanapag Harbor and other surface waters while performing normal processing operations at the facility.

B. Tiered Outfall Habitat Monitoring

Permit Part II.E. and Attachment F require the Permittee to monitor the benthic habitat within a 50 ft radius of the CPA storm sewer outfall terminus to ensure that Essential Fish Habitat (EFH) is conserved and protected. There is currently minimal site-specific information regarding the benthic habitat characteristics in the vicinity of the Permittee's outfall ("Unknown" according to the Saipan Lagoon BIOMapper) (NMFS published 2017; EPA accessed 2025).

Figure 2. Benthic data map for Saipan Lagoon.



https://maps.coastalscience.noaa.gov/biomapper/biomapper.html?id=saipan

The Tiered Outfall Habitat Monitoring requirement supports the objective of the Clean Water Act, Section 101, to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters" 33 U.S.C. § 1251(a) and the Magnuson-Stevens Fishery Management and Conservation Act (MSA) to promote the protection of essential fish habitat. The monitoring requirement will gather information to maintain the biological integrity of the receiving water. Section 9.1.1 of EPA's Permit Writer's Manual notes that "[a]dditional monitoring requirements, beyond those required under the effluent limitations section of the permit, and special studies are useful for collecting data that were not available to the permit writer for consideration during permit development. Additional monitoring requirements and special studies generally are used to supplement numeric effluent limitations or support future permit development activities." The Essential Fish Habitat consultation with National Marine Fisheries Service, as required under the 1996 amendments to the (MSA), identified a need for habitat monitoring to establish baseline conditions in the vicinity of the CPA storm sewer outfall and provide data for future EFH consultations and, as necessary, future permit conditions. See more information within Section X.C of this factsheet.

The permittee is discharging to waters that are identified as EFH under the Western Pacific Fishery Management Council's, Pelagic and Mariana Archipelago Fishery Ecosystem Plans (WPFMC 2009a, 2009b). The EFH in the Marianas is designated to support various life stages of Bottomfish and Pelagics. The life stages found in these waters include eggs, larvae, juveniles, and adults of Bottomfish and Pelagics. Specific types of habitat considered as EFH within, or adjacent to, the proposed project area include coral reef, patch reefs, hard substrate, artificial substrate, seagrass beds, soft substrate, lagoon, estuarine, surge zone, deep-slope terraces and pelagic/open ocean. Impacts identified in the WPFMC as a result of non-fishing activities include habitat loss and degradation, pollution, and contamination. The potential adverse effects to EFH are that discharged pollutants (both sorbed to particles and dissolved) have the potential to mix within waters in the outfall vicinity and possibly affect nearby bottom fish and

crustacean habitat. Mitigation measures identified to protect EFH are determining benthic productivity by sampling and placing outfall structures sufficiently far offshore (WPFMC 2009a, 2009b). Further details are provided in Section X.C.

The tiered approach to this habitat monitoring requires visual monitoring in Tier I to be completed via underwater photographs and/or videos. The Permittee shall complete Tier I monitoring and provide submittal to EPA and NMFS within two years of permit effective date. EPA, in consultation with NMFS, will review the Tier I submittal to determine the presence of benthic habitats (e.g., corals, seagrass beds, hard substrate). Based on this review, EPA may require the Permittee to complete Tier II monitoring to obtain additional benthic monitoring information. The Tier II monitoring requires the Permittee to submit a sampling and monitoring plan to EPA and NFMS prior to initiating this monitoring. EPA and NMFS will review the Tier II sampling and monitoring plan and, if necessary, comment on the proposed plan. The Permittee shall complete the Tier II Outfall Habitat monitoring within four years of the effective date of the permit.

C. Asset Management

40 CFR § 122.41(e) requires permittees to properly operate and maintain all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit. USEPA published a guide entitled Incorporating Asset Management Planning Provisions into NPDES Permits (December 2014) that directs entities to manage aging sewer and stormwater systems. “Asset management planning provides a framework for setting and operating quality assurance procedures and ensuring the permittee has sufficient financial and technical resources to continually maintain a targeted level of service. The permittee shall develop an Asset Management Plan that considers short- and long-term vulnerabilities of collection systems, facilities, treatment systems, and outfalls. Intent is to ensure facility operations are not disrupted and compliance with permit conditions is achieved. Asset management requirements have been established in the permit to ensure compliance with the provisions of 40 CFR § 122.41(e).

X. OTHER CONSIDERATIONS UNDER FEDERAL LAW

A. Impact to Threatened and Endangered Species

Section 7 of the Endangered Species Act of 1973 (16 U.S.C. § 1536) requires federal agencies to ensure that any action authorized, funded, or carried out by the federal agency does not jeopardize the continued existence of a listed or candidate species, or result in the destruction or adverse modification of its habitat.

On February 7, 2024, EPA contacted NMFS and U.S. Fish and Wildlife’s (USFWS) Pacific Islands Offices requesting a list of threatened and endangered species in the vicinity of the outfall. The listed status of each species is show (E = endangered, T = threatened), as is the anticipated level of affect associated with this project, including: not likely to adversely affect (NLAA) and no effect (NE).

Table 6. List of Threatened and Endangered Species, Critical Habitat, and EPA Determination

Status	Species/Listing Name	Designated Critical Habitat	Determination[1]
T	Mariana fruit bat (*Pteropus mariannus mariannus*)	No	NE
E	Nightingale reed warbler (*Acrocephalus luscinia*)	No	NE
E	Mariana gray swiftlet (*Aerodramus vanikorensis bartschi*)	No	NE
E	Mariana common moorhen (*Gallinula chloropus guami*)	No	NE
E	Micronesian megapode *(Megapodius laperouse)*	No	NE
E	Short-tailed albatross (*Phoebastria (=Diomedea) albatrus)*	No	NE
E	Humped tree snail (*Partula gibba*)	No	NE
E	Mariana eight-spot butterfly *(Hypolimnas octocula marianesis)*	No	NE
E	Berenghenas Halomtano *(Solanum guamense)*	No	NE
T	Dendrobium guamense *(Dendrobium guamense)*	No	NE
E	Ufa-halomtano *(Heritiera longipetiolata)*	No	NE
E	Central west pacific green turtle *(Chelonia mydas)*	Proposed	NLAA
E	Hawksbill turtle *(Eretmochelys imbricata)*	No	NLAA
T	Indo-west pacific scalloped hammerhead shark (*Sphyrna lewini)*	No	NLAA
T	Coral (*Acropora globiceps)*	Yes	NLAA
T (Proposed)	Horse's Hoof Clam *(Hippopus hippopus)*	No	NJ
E (Proposed)	Smooth Giant Clam *(Tridacna derasa)*	No	NJ
E (Proposed)	True Giant Clam *(Tridacna gigas)*	No	NJ

[1] NE = no effect, NLAA = not likely to adversely affect, NJ = Not jeopardize

Terrestrial Species

The **Mariana fruit bat** (*Pteropus mariannus mariannus*) is threatened due to habitat lost/degradation, typhoons and predation by the brown treesnake. On islands inhabited by humans, bat colonies usually occur in remote sites, especially near or along cliff lines. Populations of this species are declining on Saipan, presumably due to illegal hunting since fruit bats are used as food by humans. Generally, these bats are highly colonial and known to roost and forage in various tropical fruit trees and other dense vegetation. The USFWS 2009 recovery plan for this fruit bat does not include descriptions that the species relies on water sources for life. No critical habitat has been established by USFWS for this species.

The Nightingale reed warbler, listed as endangered, may exist as three sub-species, including (*Acrocephalus hiwae*) which has known populations on Islands of Saipan and Alamagan. The Saipan population has decreased by more than half between 1982 and 2007. USFWS began conducting a home range study for the species in 2019; results are expected in 2021-22. Several on-going threats exist to the Saipan population, including habitat loss and degradation, predators such as brown treesnake, invasion of habitat by non-native plants, typhoons, fires and human disturbance.

The Nightingale reed warbler is found in thicket-meadow habitat, upland marshes and inland wetland habitats on Saipan. There is no recent confirmation or additional information about the species in Saipan lagoon. Feeding habits include insects from live and dead leaves and dead stubs. Nesting occurs in upland habitats. No critical habitat has been provided by USFWS for this species.

The **Mariana grey swiftlet** (*Aerodramus bartschi*) is the only resident swift in the Marianas Islands. A 2020 population estimate has 3,817 individuals in 9 colonies on Saipan. This species belongs to a genus of swiftlet with the rare ability of echolocation which allows them to reside in caves. Mariana gray swiftlets forage over a wide variety of terrain and capture insects while flying. No critical habitat has been established by USFWS for this species.

The **Mariana common moorhen** (*Gallinula chloropus guami*) is an inhabitant of emergent vegetation in freshwater lakes, marshes, swamps, and wet rice paddies. The species exists on Saipan, Tinian and Rota. Its preferred habitat includes freshwater lakes, marshes and swamps. Moorhens feed on both plant and animal matter in or near water. The Mariana common moorhen appears to be active both during the day and at night. Some evidence suggests that moorhens fly primarily at night.

Because moorhens require wetlands with specific criteria for vegetative cover as well as depth, the most serious threat to the continued existence of the moorhen include the continuing disappearance of suitable wetland habitat. In addition, predation by the brown treesnake and the potential for avian disease are also considered serious threats to the species. No critical habitat has been provided by USFWS for this species.

The **Micronesian megapode** (*Megapodius laperouse)* is endemic to the Mariana Islands, including Saipan. Remaining populations are believed to persist on Aguiguan, Tinian, and Farallon de Medinilla, as well as a small reintroduced population on Saipan. The species is generally found in the forest and feeds on seeds, beetles, ants, other insects, and plant matter on the forest floor. Since the species is typically found on the forest floor, the proposed discharge to Tanapag Harbor is not expected to have an effect. No critical habitat has been provided by the USFWS for this species.

The **Short-tailed albatross** (*Phoebastria (=Diomedea) albatrus)* is found in the north Pacific. The species is known to breed on only two remote islands in the western Pacific (Japanese islands). The most notable existing threat to the species' recovery is an eruption of the volcano Torishima, their main breeding site. Other existing threats include ingestion of plastics, contamination by oil and other pollutants, and habitat degradation. Since the species stays in remote areas, they are not expected in the industrial site near the facility. Also, the discharge is not expected to impact the nesting, breeding, or feeding of the species. No critical habitat has been provided by the USFWS for this species.

The **Humped Tree snail** (*Partula gibba*) is endemic to the forest ecosystem of the Marianas Islands, including Saipan. This land snail inhabits cool, dense forest habitat to provide shade and conserve moisture. They do not appear to rely on any specific vegetation and they forage on live and decaying plant material such as fungi and microalgae. These tree snails have declined primarily due to habitat degradation, including destruction by typhoons. Populations of this species on Saipan were estimated at 41 individuals in one location (USFWS 2010). No critical habitat has been established by USFWS for this species. No critical habitat has been established by USFWS for this species.

Dendrobium guamense (no common name) is an orchid endemic to Saipan. **Ufa-halomtano** (*Heritiera longipetiolata)* is a flowering plant or grown tree, growing from crevices in limestone plateaus or slopes. **Berenghenas Halomtano** *(Solanum guamense)* is a medium-sized shrub last seen in forest with limestone soils and limestone karst. No critical habitat has been established by USFWS for any of these species.

EPA believes land-based these species are not likely to regularly interact, drink or ingest food associated with the facility's discharge; therefore, the permit will not affect the terrestrial species. EPA also believes the permit will have no effect on critical habitat.

Marine Species

Turtles

The **Central West Pacific green sea turtle** (*Chelonia mydas)* and **Hawksbill sea turtle** (*Eretmochelys imbricata)* have been sighted in nearshore waters of Saipan. NOAA/NMFS scientists have captured and/or tagged both types of turtles near Managaha Island and the surrounding Marine Conservation Area. Both turtles are generally found in shallow waters where they forage and rest, except when migrating. Green turtles eat a variety of plants and

invertebrates, and adults feed almost exclusively on seagrass and marine algae. Hawksbill turtles feed mainly on sponges and sea anemones and jellyfish. Although green turtle nesting activity is documented along other coastal areas of Saipan, there has been no documented turtle breeding in the action area, specifically within Tanapag Harbor.

If a turtle were to come into contact with the effluent, the individual would be able to quickly pass through the effluent inside the mixing zone. Additionally, the permit establishes limits that will ensure the protection of aquatic life at the outer edges of the mixing zone and beyond to waters of the harbor.

Green sea turtles are threatened by the loss of nesting and feeding habitats, excessive egg collection by humans, and illegal human take. Both Green and Hawksbill turtles suffer stranding due to fishing and debris entanglement, shark bites, boat strikes, and infectious disease. The permit does not consider or allow any activities on beaches, such has construction or compaction of sand that may alter nesting areas. EPA has therefore determined the discharge may affect but is not likely to adversely affect threatened sea turtles in the greater Tanapag Harbor. EPA has also determined that the action will have no effect on sea turtle nesting areas on the neighboring shoreland.

NMFS has proposed critical habitat for the green sea turtle at Tanapag Harbor. EPA is only required to determine whether the proposed action will jeopardize its continued existence. However, EPA provided potential impacts on the proposed critical habitat in anticipation of the rule being finalized within the permit term so as to prevent reinitiating Section 7 consultation. Essential functions for foraging and resting may require special management considerations to protect from habitat destruction or modification from construction, dredging, some fishing practices, recreational activities, and pollution, including run-off, oil spills, and contaminants. As previously stated, the discharge will be sufficiently dispersed at the edge of mixing zone to meet *CNMI Water Quality Standards* in the proposed critical habitat. The effluent limits in the permit are intended to be protective of oil, runoff, and other contaminants. Additionally, the permit does not authorize fishing methods, commercial harvest of algae, or development of the shoreline that would affect seagrass beds that are common for foraging and resting. EPA has concluded the permit will not jeopardize the continued existence of the proposed green sea turtle critical habitat.

Sharks

The **Indo West Pacific Scalloped Hammerhead Shark** is a pelagic species and thus generally found offshore in open ocean waters. The species is considered a top predator and thus feeds primarily on fish, squid, rays and even garbage. They are considered surface-dwelling sharks as they prefer warm waters in the surface mixed layer. The biggest threat to the species is incidental bycatch in commercial fishing and used in shark fin trade.

There was one sighting of a scalloped hammerhead shark in 2007 by a NOAA diver in the lagoon. The fringing reef around Managaha Island provides better habitat for prey species, and thus better habitat for hammerhead sharks. If an individual of either species were to enter

Tanapag Harbor and come in contact with the effluent, the individual would be able to move quickly through the mixing zone.

Corals

In 2014, NMFS listed 20 coral reef species as threatened, including 15 in the Indo-Pacific. Of those species, three are believed present in CNMI: *Acropora globiceps, Acropora retusa, and Seriatopora aculeata*. Based on EPA coordination with NMFS on April 8, 2024, *Acropora globiceps* is the only species expected to be present within Saipan Lagoon. Understanding the acute and chronic exposure on corals requires baseline data (Turner et al. 2017). The main threats to these species include ocean warming, ocean acidification, disease, habitat degradation, land-based sources of pollution, unsustainable fishing, and small population size. Metals like copper and nickel have toxicological effects to corals (Gissi et al. 2017). Acute and chronic exposure to hydrocarbons can lead to reduced coral cover, reduced reproduction, and even mortality (Turner et al. 2017).

Pollutants of concern in the effluent include oil and grease, ammonia, TSS, lead, benzene (a hydrocarbon), and zinc. In addition to other protective measures, the permit requires the permittees to evaluate and report on the condition of the benthic physical habitat and marine organisms via visual observation regarding corals that may exist within a 50 ft. radius of the outfall terminus. Based on the above considerations, EPA has determined that the action may affect, but is not likely to adversely affect *Acropora globiceps*.

NMFS has designated ESA critical habitat for coral (***Acropora globiceps)*** in CNMI at depth of 0-40m. The definition of critical habitat includes areas occupied by the species that have "essential features" which may require special management and are within U.S. waters. The designated critical habitat includes the greater Tanapag Harbor, yet it excludes "managed areas" (e.g., harbors, navigation channels, channel markers, anchorages, buoys, boat ramps, wharves, etc.) within the Harbor. The final rule identifies Saipan Harbor[2] as one of the areas not included in the designated critical habitat for Indo-Pacific corals [50 CFR 226.232(d)(2)(xii)]. Therefore, EPA determines that the permit will have no effect on the designated coral critical habitat.

Giant Clams

NMFS has proposed **Horse's Hoof Clam** (*Hippopus hippopus*), **Smooth Giant Clam** (*Tridacna derasa*) and **True Giant Clam** (*Tridacna gigas*) as threatened and endangered species. EPA is only required to determine whether the proposed action will jeopardize its continued existence. These clams inhabit shallow coral reefs across the Indo-Pacific region. Primary habitat for giant clams includes patches of reef and coral, sandy areas, and seagrass beds. The primary threats to these species are overutilization for commercial, recreational, scientific, or educational purposes. The vicinity surrounding the CPA storm sewer outfall is unlikely to house giant clams and is not expected to entertain the activities known to disturb the species. The

[2] For purpose of this permit, fact sheet, and response to comments, EPA considers the terms Saipan Lagoon, Saipan Harbor, and Tanapag Harbor all reference the same receiving water for the discharge.

discharge will be sufficiently dispersed at the edge of mixing zone to meet *CNMI Water Quality Standards.* EPA has concluded the permit will not jeopardize the continued existence of the proposed giant clam species.

Summary

In summary, EPA concludes this permit reissuance will have no effect on federally listed threatened and endangered birds, bats, snail or flowering species that may be present in the action area under the US Fish and Wildlife Services jurisdictions. There will be no effect on critical habitat for these terrestrial species.

For the marine species, EPA concludes the continued discharge may affect but not likely to adversely affect the federally listed threatened and endangered turtles, sharks, and corals under the NOAA NMFS jurisdictions. The effluent limits in the permit will not result in acute or chronic exposures to contaminants that would affect federally listed threatened and endangered species or impair any designated critical habitat. The effluent limits and monitoring requirements in the permit are designed to be fully protective of the beneficial uses of the receiving waters. EPA also concluded that the discharge will not jeopardize proposed giant clams or proposed critical habitat for green sea turtles.

On April 11, 2025, EPA provided NMFS with a copy of the draft fact sheet, draft permit, and Biological Evaluation to initiate informal consultation under the ESA. NMFS concurred with EPA's determinations in a letter dated May 20, 2025. If, in the future, EPA obtains information or is provided information that indicates that there could be adverse impacts to federally listed species, EPA will contact the appropriate agency or agencies and initiate consultation, to ensure that such impacts are minimized or mitigated.

B. Impact to Coastal Zones

The Coastal Zone Management Act (CZMA) requires that Federal activities and licenses, including Federally permitted activities, must be consistent with an approved state Coastal Management Plan (CZMA §§ 307(c)(1) through (3)). Section 307(c) of the CZMA and implementing regulations at 40 CFR § 930 prohibit EPA from issuing a permit for an activity affecting land or water use in the coastal zone until the applicant certifies that the activity complies with the State (or Territory) Coastal Zone Management program, and the State (or Territory) or its designated agency concurs with the certification.

On June 3, 2025, EPA received a CZMA consistency certification from the CNMI Division of Coastal Resources Management for the Mobil Saipan Terminal Permit.

C. Impact to Essential Fish Habitat

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (MSA) set forth a number of mandates for the National Marine Fisheries Service, regional fishery management councils and other federal agencies to identify and protect important marine and anadromous fish species and habitat. The MSA requires Federal agencies to make a determination on Federal actions that may adversely impact Essential Fish Habitat (EFH). The Western Pacific Fishery Management Council developed a Fishery Ecosystem Plan for Pacific

Pelagic Fisheries of the Western Pacific Region to serve as a Fishery Management Plan and is consistent with the MSA for fishery conservation and management (WPFMC 2009a, 2009b).

From the fisheries perspective, the fishes and other organisms harvested from the coral reef and associated habitats, such as mangroves, seagrass beds, shallow lagoons, bays, inlets and harbors, and the reef slope beyond the limit of coral reef growth, contribute to the total yield from coral reef-associated fisheries (WPFMC 2009a, 2009b). EFH has been designated in the Marianas and includes the marine water column from the surface to a depth of 1,000 meters from the shoreline to the outer boundary of the Exclusive Economic Zone (200 nautical miles), and the seafloor from the shoreline out to a depth of 400 meters around each of the Mariana Islands (including the receiving water). The EFH in the Marianas is designated to support various life stages of Bottomfish and Pelagics (i.e., coastal fish). Bottomfish EFH designations include the benthos, which includes habitat forming EFH (e.g., corals), from the shoreline to the 400-meter isobath. These EFH designations encompass the outfall and mixing zones for this facility. Thus, the Mobil Oil Saipan facility discharges into designated EFH.

The federal action is renewing the existing NPDES permit for the facility's discharge into Tanapag Harbor, which occurs at a 3 ft. elevation above the surface.

The potential adverse effects to essential fish habitat are discharged pollutants (both sorbed to particles and dissolved) that mix with waters in the immediate vicinity of the CPA storm sewer outfall and in the mixing zone, possibly affecting nearby bottom fish and crustacean habitat. As for fish habitat beyond the mixing zone, BECQ's mixing zone approval states "*at the boundary of the mixing zone the water shall comply with the water quality standards*", thus, water at the edge and beyond the mixing zone will meet BECQ designated Class A marine water quality standards.

The permit retains effluent monitoring for total suspended solids and total phosphorus. The permit adds effluent limitations and monitoring for ammonia and enterococci.

The permit requires compliance with numerical and narrative *CNMI Water Quality Standards* designed to be compatible with the protection and propagation of fish, shellfish, and wildlife.

EPA concluded the permit and associated treated discharges will have no adverse effect on essential fish habitat outside the mixing zone; whereas there may be adverse effects to coral, crustacean and shallow water bottom fish habitat within the immediate vicinity of the CPA storm sewer outfall based on the following considerations:

- Inside the zone of mixing, pollutant levels may exceed applicable water quality criteria, in accordance with the mixing zone policy in the *CNMI Water Quality Standards*. Potential adverse effects to essential habitat within the mixing zone are the levels of dissolved or sorbed pollutants, which can be toxic to aquatic marine life and the habitat on which they depend. The Tiered Outfall Habitat Monitoring will provide baseline data

about the benthic habitat within the immediate vicinity of the CPA storm sewer outfall to inform future consultations.

- At the edge of the mixing zone and beyond, the discharge must meet water quality criteria for Class A marine waters, including standards for the protection of aquatic life. *CNMI Water Quality Standards* for the protection of aquatic life were adopted to allow for the protection and propagation of marine organisms, including fish, shellfish and other aquatic organisms, corals, and other reef-related resources. These standards include narrative criteria as well as numeric criteria for bacteria, pH, and nutrients.

- The permit retains effluent limits for total phosphorous and several metals. The permit also adds effluent limits for ammonia and enterococci.

- The permit retains monitoring for TSS and adds monitoring for chronic toxicity at once per year.
- Monitoring results of effluent from the facility show no detections of priority pollutants such as PAHs.

On April 11, 2025, EPA provided NMFS with a copy of the draft fact sheet, draft permit, and Essential Fish Habitat Assessment to initiate informal consultation. NMFS concurred with EPA's determinations in an email dated May 8, 2025.

A reopener clause has been included in the permit should new information become available to indicate that the requirements of the permit need to be modified.

D. Impact to National Historic Properties

Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to consider the effect of their undertakings on historic properties that are either listed on, or eligible for listing on, the National Register of Historic Places. Pursuant to the NHPA and 36 CFR § 800.3(a)(1), EPA is making a determination that issuing this draft NPDES permit does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 does not require EPA to undertake additional consulting on this permit issuance.

E. Water Quality Certification Requirements (40 CFR §§ 124.53 and 124.54)

For States, Territories, or Tribes with EPA approved water quality standards, the permittee was required to seek certification (including paying applicable fees) from CNMI BECQ that the permit will meet all applicable water quality standards. Certification under CWA Section 401 shall be in writing and shall include the conditions necessary to assure compliance with referenced applicable provisions of sections 208(e), 301, 302, 303, 306, and 307 of the CWA and appropriate requirements of Territory law. EPA cannot issue the permit until the certifying Territory has granted certification under 40 CFR § 124.53 or waived its right to certify.

EPA submitted a request for 401 Water Quality Certification to CNMI BECQ on December 17, 2024. CNMI BECQ provided a CWA Section 401 Certification and Mixing Zone approval for the Mobil Saipan Terminal Permit on April 16, 2025.

XI. STANDARD CONDITIONS

A. Reopener Provision

In accordance with 40 CFR §§ 122 and 124, this permit may be modified by EPA to include effluent limits, monitoring, or other conditions to implement new regulations, including EPA-approved water quality standards; or to address new information indicating the presence of effluent toxicity or the reasonable potential for the discharge to cause or contribute to exceedances of water quality standards.

B. Standard Provisions

"The permittee is authorized to discharge from the identified facility at the outfall location(s) specified in the permit, in accordance with the effluent limits, monitoring requirements, and other conditions set forth in the permit. This permit authorizes the discharge of only those pollutants resulting from facility processes, waste streams, and operations that have been clearly identified in the permit application process. Any discharges not expressly authorized in the Permit cannot become authorized or shielded from liability under CWA section 402(k) by disclosure to EPA, State, or local authorities after issuance of the Permit via any means, including during an inspection.

Any pollutant loading greater than or different than the proposed discharge (the "proposed discharge" is based on the chemical-specific data and the facility's design flow as described in the permit application, or any other information provided to EPA during the permitting process) is not authorized by this permit.

EPA notes that such other discharge or increases may be allowable, but the Permittee must first submit a request to EPA to authorize such other discharge or increase. This request will allow EPA to conduct an updated reasonable potential analysis to reassess whether a WQBEL is needed for the newly proposed discharge. Permit modification or reissuance may be required before the proposed discharge would be authorized."

EPA notes that such other discharge or increases may be allowable, but the Permittee must first submit a request to EPA to authorize such other discharge or increase. This request will allow EPA to conduct an updated reasonable potential analysis to reassess whether a WQBEL is needed for the newly proposed discharge. Permit modification or reissuance may be required before the proposed discharge would be authorized.

XII. ADMINISTRATIVE INFORMATION

A. Public Notice (40 CFR § 124.10)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft NPDES permit or other significant action with respect to an NPDES permit or application.

B. Public Comment Period (40 CFR § 124.10)

The public comment period occurred from April 11, 2025 through May 12, 2025. The draft permit and fact sheet were posted on the EPA website for the duration of the public comment period. Comments were received from one commentor.

C. Public Hearing (40 CFR § 124.12)

A public hearing may be requested in writing by any interested party. The request should state the nature of the issues proposed to be raised during the hearing. A public hearing will be held if EPA determines there is a significant amount of interest expressed during the 30-day public comment period or when it is necessary to clarify the issues involved in the permit decision.

XIII. CONTACT INFORMATION

Comments, submittals, and additional information relating to this proposal may be directed to:

Prasad Gullapalli
415-972-3406
Gullapalli.Prasad@epa.gov
EPA Region 9
San Francisco, California

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Attachment A: Calculations for water quality based effluent limitations

Derivation of permit limits based on Section 5.4.1 of EPA's TSD. (EPA 1991). Dilution factor of 2.2 is used, except for phosphorus, where a dilution factor of 13.1 is used.

Effluent Derivation – Steady-State Model(1)	**Arsenic**	**Phosphorous**	**Manganese**	**Benzene**	**Copper**	**Zinc**
Water quality criterion (µg/L)(2)	5	50	100	16	4.8(3)	90(3)
Dilution credit authorized	2.2	13.1	2.2	2.2	2.2	2.2
Background concentration (µg/L)	3(4)	0	0	0	2(4)	8(4)
WLA (µg/L)	7.4	655	220	35.2	8.2	188.4
Coefficient of variation	0.6	0.6	0.6	0.6	0.6	0.6
WLA multiplier (99th %)	0.321	0.321	0.321	0.321	0.321	0.321
LTA (µg/L)	2.38	210.3	70.6	11.3	2.63(5)	60.48
LTA-MDL multiplier (99th %)	3.11	3.11	3.11	3.11	3.11	3.11
MDL	**7.4**	**655**	**220**	**35.2**	**8.2**	**188.4**

(1) WLA = waste load allocation. LTA = long-term average. MDL = maximum daily limit.
(2) The *CNMI Water Quality Standards* express the phosphorus water quality criteria as a single value. EPA interpreted the criterion as "phosphorus concentration must not exceed 0.05 mg/L." Where there is only one water quality criterion, and therefore, only one WLA, permit limits can be derived by considering the single WLA.
(3) Acute water criterion was used based on the intermittent nature and short duration of the discharge.
(4) Natural background concentrations for arsenic, copper, and zinc were not available. A Background concentrations listed here (3 µg/L for arsenic, 2 µg/L for copper, 8 µg/L for zinc) are assumed based on other permits EPA Region 9 issues in federal waters off the coast of California.
(5) This parameter was listed as 2.33 in the previous permit which led to a mathematical error and a lower permit limit. EPA is correcting this value to 2.63 to calculate the appropriate permit limit.