

**January 2019  
FACT SHEET**

**General Permit for Bulk Fuel Storage Facilities in Guam  
NPDES Permit No. GUG000001**

**SUMMARY:** The Regional Administrator, EPA, Region 9, proposed issuing an NPDES general permit for discharges from bulk fuel storage facilities in the territory of Guam. This new general permit is intended to replace the individual NPDES permits for five bulk fuel storage facilities. Individual NPDES permit coverage for these five bulk fuel storage facilities will be terminated once the facility is covered by this general permit.

Upon issuance the proposed permit will establish effluent limitations, prohibitions, and other conditions on discharges from facilities in the general permit area. These conditions are based on the administrative record. EPA regulations and the permit contain a procedure which allows the owner or operator of a point source discharge to apply for an individual permit instead.

For the proposed permit, Region 9 evaluated the reasonable potential of produced water and storm water discharges to cause or contribute to exceedances of water quality criteria using recent monitoring data submitted by the permittees as developed in the relevant individual NPDES permit reissuances. The proposed effluent limits and monitoring requirements were established based on this evaluation.

**PUBLIC NOTICE:** This proposed permit was public noticed in the Federal Register on December 6, 2017 and on U.S.EPA's NPDES Permits Webpage. Comments on the proposed general permit were to be received or postmarked no later than February 5, 2018 which is 60 days from the publication of the Notice of Availability in the Federal Register.

**ADDRESSES:** Public comments were to be sent to: Environmental Protection Agency, Region 9, Attn: Gary Sheth, NPDES Permits Office (WTR-2-3), Water Division, 75 Hawthorne Street, San Francisco, California 94105-3901, or by email to: sheth.gary@epa.gov.

**FOR FURTHER INFORMATION, CONTACT:** Gary Sheth, EPA Region 9 at the address listed above or telephone (415) 972-3516. Copies of the proposed general permit and fact sheet will be provided upon request, and are also available on Region 9's website at: <http://www.epa.gov/region09/water/>. Copies of the final general permit and fact sheet will be available EPA's NPDES Permits website at: <https://www.epa.gov/npdes-permits/npdes-permits-epas-pacific-southwest>

**ADMINISTRATIVE RECORD:** The proposed general permit, fact sheet and other related documents in the administrative record are on file and may be inspected any time between 8:30 a.m. and 4:00 p.m., Monday through Friday, excluding legal holidays, at the following address:

U.S. EPA, Region 9  
NPDES Permits Office (WTR 2-3)  
75 Hawthorne Street  
San Francisco, CA 94105-3901

## I. LEGAL BASIS

Section 301(a) of the Clean Water Act (“CWA” or “the Act”), 33 USC 1311(a), provides that the discharge of pollutants is unlawful except in accordance with the terms of a National Pollutant Discharge Elimination System (“NPDES”) permit. CWA Section 402, 33 USC 1342, authorizes EPA to issue NPDES permits allowing discharges on condition they will meet certain requirements, including CWA Sections 301, 304, 401, and 403, 33 USC 1311, 1314, 1341, 1343. These statutory provisions require that NPDES permits include effluent limitations requiring that authorized discharges (1) meet standards reflecting levels of technological capability, (2) comply with EPA-approved state water quality standards, (3) comply with other state requirements adopted under authority retained by states under CWA Section 510, 33 USC 1370 and (4) cause no unreasonable degradation to the territorial seas, waters of the contiguous zone or the oceans.

Because the Territory of Guam (Guam) has not been delegated primary regulatory responsibility for administering the NPDES program, EPA is issuing a NPDES permit which incorporates both federal CWA and Guam water quality requirements. However, EPA will forward this draft permit and fact sheet to Guam EPA and request CWA Section 401(a)(1) certification.

## II. GENERAL PERMITS AND PERMIT COVERAGE

**A. General Permit.** The Regional Administrator has determined that bulk fuel storage facilities operating in the areas described in the proposed general NPDES permit are more appropriately and effectively controlled by a general permit than by individual permits. This decision is based on 40 CFR 122.28, and 40 CFR 125 (Subpart M) and EPA’s previous permit decisions on the Guam bulk fuel storage facilities. These facilities and their operational and discharge characteristics are very similar and EPA has determined that it will be more efficient to regulate their discharges by a general permit than to continue issuing individual permits.

**B. Request for an Individual Permit.** Any operator authorized to discharge under a general permit may request to be excluded from coverage under the general permit by applying for an individual permit as provided by 40 CFR 122.28(b)(3). The operator shall submit an application together with the reasons supporting the request to the Director, Water Division, EPA, Region 9 (“Director”).

**C. Requesting Coverage Under this Proposed General Permit.** Procedures for requesting coverage under a general permit are provided by NPDES regulations at 40 CFR 122.28. In accordance with these regulations, all dischargers requesting coverage under the permit shall submit a Notice of Intent (“NOI”). Information to be provided includes the legal name and address of the owner or operator, the facility name and location, type of facility and discharges,

previous permits, and the receiving water. All NOIs shall be signed in accordance with 40 CFR 122.22.

**D. Requiring an Individual Permit.** The Director may require any person authorized by this permit to apply for and/or obtain an individual NPDES permit. Any interested person may petition the Director to take action under this paragraph. Where the Director requires a discharger authorized to discharge under this permit to apply for an individual NPDES permit, the Director shall notify the discharger in writing that an individual permit application is required. Any operators who seek to obtain an individual NPDES permit would need to submit a consistency certification to Guam Bureau of Statistics and Plans for review as a federal license or permit activity (15 CFR 930, Subpart D). Coverage under this general permit shall automatically terminate on the effective date of the issuance or denial of the individual permit.

**E. Modification, Revocation, and Termination.** Procedures for modification, revocation, termination, and processing of NPDES permits are provided by 40 CFR 122.62-122.64.

**F. Deadlines for Notice of Intent (NOI) Submittal.** For the five bulk fuel storage facilities specified above, NOIs shall be submitted no later than 30 days after the effective date of the permit.

### **III. DESCRIPTION OF FACILITIES, OPERATIONS, AND NATURE OF DISCHARGES**

**A. Facility Coverage.** Region 9 currently authorizes the wastewater discharge from bulk fuel storage facilities in Guam through various individual permits. The proposed general permit is intended to cover five of these facilities located in Guam. The five existing facilities are: Mobil Oil Guam Inc./Cabras Terminal, Tristar Guam F-1 Pier Terminal, South Pacific Petroleum Corporation/Cabral Island Terminal, Tristar Guam Agat Terminal, and Guam Power Authority Piti Terminal. See Appendix A for a map indicating the approximate location of each facility. Coverage under this permit is not available for any other facilities.

For the five bulk fuel storage facilities listed above, written Notices of Intent (“NOIs”) to be covered under this permit shall be submitted no later than 30 days after the effective date of this permit. For any additional bulk fuel storage facilities seeking coverage under this general permit, NOIs shall be submitted prior to initiation of any discharges. Initiation of discharges authorized by this permit may not begin until EPA has reviewed the submitted information and notified the permittee in writing that their NOI has been approved. Facility coverage is not effective until NOIs are received and EPA notifies the permittee, as described in Part I.6.a of the draft permit.

The permit coverage area consists of all surface and marine waters in the Territory of Guam (Guam). The receiving waters for these facilities are subject to Guam water quality standards. The receiving waters for the five facilities listed above are described below. The Mobil Oil Guam Terminal Inc./Cabras Terminal, the Tristar Guam F-1 Pier Terminal and the South Pacific Petroleum Corporation/Cabral Island Terminal all discharge to Apra Harbor, a near-shore

territorial water of Guam designated as Category M-3 (“Fair” quality) marine water. The Guam Power Authority Piti Terminal discharges to Piti Channel, a Category S-3 (“Fair” quality) fresh waterbody, which then discharges to Apra Harbor. The Tristar Guam Agat Terminal discharges to Big Guatali River, a Category S-3 (“Fair” quality) fresh waterbody located in Agat, Guam.

The permitted outfalls for each of these facilities must also be defined. The Mobil Oil Guam Inc./Cabras Terminal has two permitted outfalls (Outfall 001 – Area A Tank Farm; Outfall 002 – Area C Tank Farm). The Tristar Guam F-1 Pier Terminal contains a single outfall (Outfall 001 – drainage from bulk storage area and pipeline receipt and transfer manifold area). The South Pacific Petroleum Corporation/Cabras Island Terminal has two permitted outfalls (Outfall 001 – Drainage from bulk storage area and pipeline receipt and transfer manifold area; Outfall 002 – Drainage from tank truck loading area). The Tristar Guam Agat Terminal contains a single outfall (Outfall 001 – drainage from bulk storage area and pipeline receipt ad transfer manifold area). The Guam Power Authority Piti Terminal has three permitted outfalls (Outfalls 001, 002 and 003 all collect storm water or any release from the tanks).

**B. Types of Operations.** The facilities covered by this proposed permit are petroleum bulk storage terminals located in Guam. According to the *Technical Support Document for the 2004 Effluent Guidelines Program Plan* (EPA, 2004), typical pollutants for petroleum bulk storage terminals are oil & grease, total petroleum hydrocarbons, biochemical oxygen demand, chemical 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, but are most associated with petroleum products with lighter ranges of hydrocarbons, such as gasoline. Since discharges from this facility may come into contact with petroleum products, including gasoline, and because oil-water separators are typically the only means of treatment, it is reasonable to expect that these pollutants may be discharged to surface waters.

**C. Types of Discharges Authorized.** The permittees store and distribute a variety of petroleum products, as described above. Discharges from the facility are intermittent, and may include:

- tank bottom water draws, which originate at the lowest inner part of petroleum storage tanks where liquid drains from interior spaces as a result of rainwater accumulation and water condensation from the petroleum product itself
- treated storm water which may be discharged concurrently with tank bottom water draws
- equipment maintenance activities
- hydrostatic test water from integrity testing of piping and tankage
- service water flows associated with incidental leaks, system tests, and facility maintenance activities
- firewater system testing

The proposed general permit would authorize each of these discharges. The proposed permit does not authorize discharges other than those described above, including pollutants which are

not ordinarily present in those discharges. EPA requires that all minor spills and incidental leaks of petroleum products must be promptly cleaned up.

**D. Nature of Discharges.** The proposed general permit authorizes the discharges described above from each of the five facilities as well as new facilities seeking coverage under this general permit. Specific requirements and effluent limitations are specified for each facility below and in the proposed permit.

In developing the proposed permit conditions, EPA has evaluated the concentrations of these pollutants relative to the levels allowed under Federal regulations (National Recommended Water Quality Criteria, December 2004), Guam water quality standards (revised and approved by Guam on June 18, 2002) and best professional judgement. The pollutants and discharge parameters limited are summarized in Section IV below.

**E. Types of Waste Treatment.** The only means of treatment typically utilized at these facilities is oil-water separators, as mentioned above.

#### **IV. SPECIFIC PERMIT CONDITIONS**

**A. General.** When determining effluent limitations, EPA must consider limitations based on the technology available to treat the pollutant(s) (i.e., technology-based limitations) and limitations that are protective of water quality standards (i.e., water quality-based limitations). In accordance with 40 CFR Parts 122.44 and 125.3 and Guam water quality standards, technology and water quality-based effluent limitations for the draft permit are proposed using daily maximum limits.

##### *Technology-based Effluent Limitations*

EPA proposes a technology-based effluent limit for oil and grease since oil and grease are common components of oily wastewater. The effluent limit for oil and grease is based on EPA's Best Professional Judgment ("BPJ") as part of developing technology-based effluent limits since there are no applicable effluent limitation guidelines and performance standards for oil and grease. Section 402(a)(1) of the Clean Water Act ("CWA") provides for the establishment of BPJ-based limits when specific national effluent guidelines are not available for a pollutant of concern. The proposed BPJ daily maximum discharge limit for oil and grease is 15.0 mg/l. This limit is consistent with limits on other similar facilities that treat oily wastewater in Guam and this limit was also included in each of the five individual permits for these facilities. Therefore, this limit applies to all facilities covered under this general permit. In addition to this technology-based numeric limit, the narrative water quality-based limit for oil and grease prohibiting visible sheening is included in the draft permit.

EPA also 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 quality for this type of facility. Specifically, the release of heavy metals and polycyclic aromatic hydrocarbons (PAHs) can be reduced by regulating the amount of suspended solids discharged. The limit of 100 mg/l was chosen based on an analysis of relevant TSS limits implemented in various states. As seen below, the limit set in this permit is at the higher end of the range. The limit is a daily maximum to be monitored once per month.

**Comparison of Technology-Based TSS Limits**

	<b>Monthly Average</b>	<b>Daily Maximum</b>
Maine <sup>1</sup>	50 mg/L	100 mg/L
Massachusetts <sup>2</sup>	30 mg/L	100 mg/L
Tennessee <sup>3</sup>	30 mg/L	45 mg/L
South Carolina <sup>4</sup>	--	100 mg/L
California <sup>5</sup>	--	75 mg/L
Washington <sup>6</sup>	30 mg/L	45 mg/L

<sup>1</sup> <https://www3.epa.gov/region1/npdes/permits/2010/finalme0022225permit.pdf>

<sup>2</sup> <https://www3.epa.gov/region1/npdes/permits/2014/finalma0001929permit.pdf> and <https://www3.epa.gov/region1/npdes/permits/draft/2014/draftma0001091permit.pdf>

<sup>3</sup> [http://in.gov/idem/cleanwater/files/permit\\_notice\\_petroleum\\_draft\\_factsheet.pdf](http://in.gov/idem/cleanwater/files/permit_notice_petroleum_draft_factsheet.pdf)

<sup>4</sup> <https://www.scdhec.gov/environment/docs/scg340000.pdf>

<sup>5</sup> [http://63.199.216.6/permits/docs/6297\\_R4-2016-0219\\_WDR\\_PKG.pdf](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](http://63.199.216.6/permits/docs/7873_R4-2016-0142_WDR_PKG.pdf)

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[https://fortress.wa.gov/ecy/wqreports/public/WQPERMITS.document\\_pkg.download\\_document?p\\_document\\_id=119992](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](https://fortress.wa.gov/ecy/wqreports/public/WQPERMITS.document_pkg.download_document?p_document_id=133872)

### *Water Quality-Based Effluent Limitations*

In accordance with 40 CFR 122.44(d), the draft permit proposes water quality-based effluent limits for several pollutants or parameters since EPA has determined, based on effluent data provided by the permittee and the nature of the discharge, that the effluent discharged from the facility causes, has the reasonable potential to cause, or contributes to an exceedance of

Guam water quality standards. When determining whether an effluent discharge causes, has the reasonable potential to cause, or contributes to an excursion above a narrative or numeric criteria within a State (or Territory) water quality standard, the permitting authority, such as EPA, shall use procedures which account for existing controls on point and nonpoint sources of pollution, and the variability of the pollutant or parameter in the effluent.

In the development of this general permit, EPA relied upon the reasonable potential analyses conducted in each of the most recent individual permits issued to the five existing facilities listed above. The data and reasonable potential calculations described in the respective fact sheets is incorporated as part of the administrative record for this general permit. For all parameters or pollutants that show a reasonable potential, numeric water quality-based effluent limits are included in the draft permit and are described below (40 CFR 122.44(d)(1)). The parameters or pollutants which are consistently determined to have a reasonable potential in the five existing facilities are also automatically applied to any additional facility that may be authorized to discharge under this general permit in the future. Water quality-based effluent limits were established without consideration of a mixing zone.

Each pollutant of concern is addressed specifically below.

1. *pH* - The range of pH values is based on Guam's water quality standards, which require that all Category M-3 and S-3 waters, maintain a pH range of 6.5 to 8.5. Based on the reasonable potential analyses conducted in the most recent individual NPDES permits issued to the five facilities, all facilities have a reasonable potential to violate these pH limits. Therefore, the existing individual permits all contain pH limits and these limits are also included in this proposed general permit. These limits apply to each of the five permitted facilities.
2. *Oil and Grease* -As previously described, a numerical technology-based effluent limit is proposed for oil and grease (15 mg/L). In addition, a narrative water quality-based effluent limit is proposed since oil and grease are commonly found in wastewater from bulk petroleum storage facilities and has a reasonable potential to cause, or contribute to an exceedance of Guam water quality standards. The narrative effluent limit for oil and grease is based on Guam's water quality standards and includes the prohibition of visible sheening (see PART VI (D)). These limits apply to each of the five permitted facilities..
3. *Lead* – Lead is commonly found in fuel oil and oily wastewaters in Guam. The proposed discharge limit for lead is 0.0081 mg/l based on Guam water quality standards for aquatic life protection. The limit is based on total recoverable metal and the potential for acute exposure of lead to aquatic life. Based on the reasonable potential analyses conducted in the most recent individual NPDES permits issued to the five facilities, only the South Pacific Petroleum Corporation/Cabras Island Terminal has the reasonable potential to discharge lead at or above the water quality standard. The Guam Power Authority Piti Terminal permit also contained a lead limit but because the facility has now phased out lead as an additive there is no longer reasonable potential to include a permit limit for that facility. Therefore, this limit only applies to the South Pacific Petroleum facility. Additionally, monthly monitoring for

lead is established for all other facilities based on best professional judgment in order to determine if a permit limit may be required in the future.

4. *Benzene* – Benzene is a common component of gasoline and other petroleum products. Guam's water quality standards do not include surface water quality standards for benzene; however, EPA's human health criteria for organism only is a range of 16 to 58 µg/L. In EPA's update of human health ambient water quality for benzene (2015), EPA recommends using the lower criteria based on the carcinogenic effects of benzene. See EPA 820-R-15-009. Therefore, the proposed discharge limit for benzene is 16 ug/l. In Category M-3 marine waters, aquatic life protection is included as a water quality standard, so fish consumption criteria are applied to all aquatic life uses. Based on the reasonable potential analyses in the most recent individual NPDES permits issued to the five facilities, the South Pacific Petroleum Corporation/Cabras Island Terminal has reasonable potential to discharge benzene at or above the water quality standard. The data submitted by Mobil Oil Guam Inc. in their most recent permit renewal application for their Cabras terminal indicates that there is no reasonable potential for benzene to be exceeded in the effluent. Therefore, this limit only applies to the South Pacific Petroleum Corporation/Cabras Island Terminal. EPA notes that the proposed limit is more stringent than the 71 ug/l effluent limit that was included in the individual permits based on the human health risk ( $1 \times 10^{-6}$  carcinogenic risk) of the consumption of aquatic organisms only (not water and aquatic organisms). EPA notes that since this facility has reasonable potential to exceed the less stringent limit, it would also have reasonable potential to exceed the more stringent limit. Therefore, this more stringent limit is warranted to protect human health based on fish consumption. Additionally, monthly monitoring for benzene is established for both Cabras terminals based on BPJ in order to determine if a permit limit may be required in the future.
5. *Total Suspended Solids (TSS)* - Guam water quality standards contain receiving water criteria of 40 mg/l for TSS for category M-3 receiving waters. Based on the most recent individual NPDES permits issued to the five facilities, the South Pacific Petroleum Corporation/Cabras Island Terminal and the Mobil Oil Guam Inc./Cabras Terminal (Outfall 001) discharges have a reasonable potential to cause or contribute to an exceedance of applicable water quality criteria. Therefore, a limit of 40 mg/l applies to these two facilities. Additionally, as described above, all other facilities (including Outfall 002 at the Mobil Oil Guam Inc./Cabras Terminal) must comply with a 100 mg/l maximum daily technology-based effluent limit, based on BPJ, as TSS is considered a typical pollutant of concern for petroleum bulk storage terminals. Narrative effluent limits for TSS have also been included in the proposed permit. These narrative limits include that the discharge shall not (a) cause visible floating materials, debris, oils, grease, scum, foam, or other floating matter which degrades water quality or use; (b) produce visible turbidity, settle to form deposits or otherwise adversely affect aquatic life; and (c) produce objectionable color, odor or taste, directly or by a chemical or biological action.
6. *Ammonia* – According to the *Technical Support Document for the 2004 Effluent Guidelines Program Plan* (EPA, 2004), ammonia is considered a typical pollutant of concern for petroleum bulk storage terminals. Based on the reasonable potential analyses in the most

recent individual NPDES permits issued to the five facilities, the Mobil Oil Guam Inc./Cabras Terminal (Outfall 001) has the reasonable potential to require a permit limit. EPA used the highest receiving water pH (8.41 standard units), highest receiving water temperature (28.7°C), and lowest receiving water salinity (35 parts per thousand) measured in 2011 at the nearest GEPA monitoring station (APM18) to calculate the most protective water quality criterion for total ammonia applicable to the receiving water, 0.15 mg/L. Therefore, this limit is applied only to the Mobil Oil Guam Inc./Cabras Terminal. Additionally, monthly monitoring for ammonia is established for all other facilities based on best professional judgment in order to determine if a permit limit may be required in the future.

7. *Toluene, Ethylbenzene and Xylene* – Based on the reasonable potential analyses in the most recent individual NPDES permits issued to the five facilities, EPA has determined that none of the discharges have reasonable potential to cause or contribute to an exceedance for toluene, ethylbenzene or xylene. However, annual monitoring for these parameters is established for all facilities based on best professional judgment, as these are considered typical pollutants of concern for petroleum bulk storage terminals. At this time there are no numeric water quality-based effluent limits proposed from these pollutants.
8. *Zinc* – Criteria listed in Guam's water quality standards for the protection of saltwater aquatic life and human health (consumption of organisms only), as designated for Category M-3 marine waters, apply to marine receiving waters. Based on the reasonable potential analyses in the most recent individual NPDES permits issued to the five facilities, EPA has determined that only the Mobil Oil Guam Inc./Cabras Terminal has the reasonable potential to cause or contribute to an exceedance of applicable water quality criteria for zinc. Therefore, the draft permit contains effluent limits for zinc at Outfalls 001 and 002 based on the most stringent water quality criteria in Guam Water Quality Standards, 2001 Revision for Category M-3 receiving waters. The 86 µg/l criterion continuous concentration for protection of saltwater aquatic life (a 4-day average that should not be exceeded more than once every three years) is the most stringent applicable water quality criterion for zinc, and is incorporated into the permit as an effluent limit to be monitored once per month. In the most recent individual permit reissuance for this facility, the facility was given a compliance schedule for meeting this zinc limit with a final compliance date of the expiration date of the individual permit (October 31, 2017). Therefore, this limit will be effective upon issuance of the new permit.

Based on the above analyses, the three tables below provide a summary of effluent limitations, monitoring requirements, and sample types for each pollutant or parameter in the proposed permit.

Table 1. Effluent Limits Applicable to All Facilities

Pollutant/Parameter	Daily Max. Allowable Effluent Limitation	Monitoring Requirements	
		Monitoring Frequency	Sample Type
pH (Std. units) <sup>1</sup>	6.5 to 8.5	Once/Month	Grab

Oil and Grease (mg/l)	15	Once/Month	Grab
TSS (mg/l) <sup>2</sup>	100	Once/Month	Grab

<sup>1</sup>pH effluent limits reported as minimum/maximum concentrations; pH shall be measured at the time of sampling.

<sup>2</sup>TSS limit of 100 mg/l applies to all facilities and outfalls except the South Pacific Petroleum Corporation/Cabras Island Terminal and the Mobil Oil Guam Inc./Cabras Terminal (Outfall 001), which must comply with the more stringent limit of 40 mg/l, shown below.

Table 2. Effluent Limits Applicable to Specific Facilities

Pollutant/ Parameter	Applicable Facilities	Daily Max. Allowable Effluent Limitation	Monitoring Requirements	
			Monitoring Frequency	Sample Type
Lead (mg/l)	South Pacific Petroleum Corporation/Cabras Island Terminal	0.0081	Once/Month	Grab
Benzene (mg/l) <sup>1</sup>	South Pacific Petroleum Corporation/Cabras Island Terminal and Mobil Oil Guam Inc./Cabras Terminal (Outfall 002)	0.016	Once/Month	Grab
TSS (mg/l)	South Pacific Petroleum Corporation/Cabras Island Terminal and Mobil Oil Guam Inc./Cabras Terminal (Outfall 001)	40	Once/Month	Grab
Ammonia (mg/l)	Mobil Oil Guam Inc./Cabras Terminal	0.15	Once/Month	Grab
Zinc (mg/l) <sup>2</sup>	Mobil Oil Guam Inc./Cabras Terminal	0.086	Once/Month	Grab

<sup>1</sup> The limit for Benzene applies only to the South Pacific Petroleum Corporation/Cabras Island Terminal. For Mobil Oil Guam Inc./Cabras Terminal (Outfall 002) this is a monitoring level.

<sup>2</sup> Zinc effluent limit shall be effective beginning on November 1, 2017.

Table 3. Monitoring Requirements Applicable to All Facilities

Pollutant/Parameter	Monitoring Requirements	
	Monitoring Frequency	Sample Type
Flow Rate (MGD) <sup>1</sup>	Continuous	Metered
Lead (mg/l) <sup>3</sup>	Once/Month	Grab
Benzene (mg/l)	Once/Month	Grab
Ammonia(mg/l)	Once/Month	Grab
Toluene (mg/l)	Once/Year	Grab
Ethylbenzene (mg/l)	Once/Year	Grab
Xylene (mg/l)	Once/Year	Grab
Whole Effluent Toxicity <sup>2</sup>	Once/Permit Cycle	Grab
Priority Pollutants <sup>2</sup>	Once/Permit Cycle	Grab

<sup>1</sup> MGD means million gallons per day.

<sup>2</sup> In accordance with federal regulations, the permittee shall conduct a concurrent Whole Effluent Toxicity test and Priority Toxics Pollutants scan to ensure that the discharge does not cause toxicity nor contain toxic pollutants in concentrations that may cause violation of water quality standards. Monitoring of WET test and Priority Pollutant scan shall occur upon first discharge at this facility and at least once during permit term. 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 which provides a complete list of Priority Toxic Pollutants. If the scan results indicate that a limit has actually been exceeded or there is a reasonable potential for such a limit to be exceeded, this permit may be reopened to include appropriate numeric limits.

<sup>3</sup> Lead shall be measured once/year for Mobil Oil Guam Inc. as it has demonstrated the measured concentration of this parameter is ten times below the water quality criterion. Nevertheless, annual monitoring consistent with other parameters likely to be present such as Toluene and Ethylbenzene is warranted.

**B. Best Management Practices.** Pursuant to 40 CFR 122.44(k), 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 the permittee to develop (or update) and implement a Pollution Prevention Plan with the appropriate pollution prevention measures or BMPs designed to prevent pollutants from entering the receiving waters and other surface waters while maintaining, transporting, and storing petroleum products or other potential pollutants at the facility.

**C. Standard Permit Conditions.**

NPDES Regulations at 40 CFR 122.41 and 122.42 require that certain standard conditions be included in all NPDES permits. These conditions have been included in Part IV of the proposed permit.

**D. Anti-Backsliding**

Section 402(o) of the CWA prohibits the renewal or reissuance of an NPDES permit that contains effluent limits less stringent than those established in the previous permit, except as provided in the statute. This general permit does not include any less stringent effluent limits than those in previous individual permits. EPA notes that a lead limit no longer applies to the Guam Power Authority Piti Terminal based on the removal of lead as an additive at that facility resulting in lead not being expected in the discharge.

**E. Anti-degradation Policy**

EPA's anti-degradation policy at 40 CFR 131.12 and Guam WQS Section 5101.B. 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 does not include a mixing zone: therefore, these limits will apply at the end of pipe without consideration of dilution in the receiving water. Due to the low levels of toxic pollutants present in the effluent, treatment prior to discharge, and water quality based effluent limitations, it is expected that the discharge will not adversely affect receiving water bodies.

## **VI. RECEIVING WATER MONITORING**

Photo documentation of the discharged effluent is required once per quarter. Photos shall be taken of the effluent as it enters the receiving water and must be of suitable quality to adequately assess visible sheening, discoloration, and turbidity of the receiving water, as a result of the discharge. Each photo must be labeled with the outfall number, date and time and be submitted as an electronic attachment to the respective NetDMR submittal, as described in the draft permit.

## **VII. OTHER LEGAL REQUIREMENTS**

**A. Endangered Species Act.** The Endangered Species Act (“ESA”) allocates authority to and administers requirements upon Federal agencies regarding threatened or endangered species of fish, wildlife, or plants and habitat of such species that have been designated as critical. Its implementing regulations (50 CFR Part 402) require EPA to ensure, in consultation with the Secretary of the Interior or Commerce, that any action authorized, funded or carried out by EPA is not likely to jeopardize the continued existence of any threatened or endangered species or adversely affect its critical habitat (40 CFR 122.49(c)).

Implementing regulations for the ESA establish a process by which Federal agencies consult with one another to ensure that the concerns of both the U.S. Fish and Wildlife Service (“USFWS”) and the National Marine Fisheries Service (“NMFS”)(collectively “Services”) are addressed.

For the proposed general permit issuance, Region 9 considered the potential effects of the discharges on listed species and critical habitat. Both NMFS and the USFWS maintain updated lists of threatened and endangered species and critical habitat for these species at <http://www.nmfs.noaa.gov/pr/species/esa/> and [http://ecos.fws.gov/tess\\_public/](http://ecos.fws.gov/tess_public/).

The threatened and endangered species that were identified by EPA and reviewed by the Services during the issuance of the previous five individual permits that are being replaced by this general permit were as follows:

- 1. Mobil Oil Guam Inc./Cabras Terminal.** Green Sea Turtle (*Chelonia mydas*) and Hawksbill Turtle (*Eretmochelys imbricata*)
- 2. Tristar Guam F-1 Pier Terminal.** Green Sea Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricata*), Leatherback Sea Turtle (*Dermochelys coriacea*), Loggerhead Sea Turtle (*Caretta caretta*), Mariana Gray Swiftlet (*Aerodramus vanikorensis bartschi*), Bridled White-Eye (*Zosterops conspicillatus conspicillatus*), and the Hyun Lagu (*Serianthes nelsonii*)

- 3. South Pacific Petroleum Corporation/Cabras island Terminal.** Little Marianas Fruit Bat (*Pteropus tokudae*), Marianas Flying Fox (*Pteropus marianus marianus*), Mariana Crow (*Corvus kubaryi*), Guam Micronesian Moorhen (*Gallinula chloropus guam*), Guam Rail (*Rallus owstoni*) Green Sea Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricate*), Leatherback Sea Turtle (*Dermochelys coriacea*), Loggerhead Sea Turtle (*Caretta caretta*), Mariana Gray Swiftlet (*Aerodramus vanikorensis bartschi*), Bridled White-Eye (*Zosterops conspicillatus conspicillatus*), and the Hyun Lagu (*Serianthes nelsonii*)
- 4. Tristar Guam Agat Terminal.** Little Marianas Fruit Bat (*Pteropus tokudae*), Marianas Flying Fox (*Pteropus marianus marianus*), Mariana Crow (*Corvus kubaryi*), Guam Micronesian Moorhen (*Gallinula chloropus guam*), Guam Rail (*Rallus owstoni*) Green Sea Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricate*), Leatherback Sea Turtle (*Dermochelys coriacea*), Loggerhead Sea Turtle (*Caretta caretta*), Mariana Gray Swiftlet (*Aerodramus vanikorensis bartschi*), Bridled White-Eye (*Zosterops conspicillatus conspicillatus*), and the Hyun Lagu (*Serianthes nelsonii*)
- 5. Guam Power Authority Piti Terminal.** Little Marianas Fruit Bat (*Pteropus tokudae*), Marianas Flying Fox (*Pteropus marianus marianus*), Mariana Crow (*Corvus kubaryi*), Guam Micronesian Moorhen (*Gallinula chloropus guami*), Guam Rail (*Rallus owstoni*) Green Sea Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricate*), Leatherback Sea Turtle (*Dermochelys coriacea*), Loggerhead Sea Turtle (*Caretta caretta*), Mariana Gray Swiftlet (*Aerodramus vanikorensis bartschi*), Bridled White-Eye (*Zosterops conspicillatus conspicillatus*), and the Hyun Lagu (*Serianthes nelsonii*)

At the time these five permits were last issued, EPA made findings that the actions would have no effect on listed species or their critical habitats. Drafts of all five individual permits were shared with the Services prior to final issuance and the Services did not provide any comments during the comment period of these permits.

EPA also reviewed information about coral species protected under the Endangered Species Act provided by the National Oceanic and Atmospheric Administration (NOAA). In reviewing the most recent literature EPA noted that there were four species of coral currently known to be in the vicinity of Guam. These four are: *Acropora globiceps*, *Acropora retusa*, *Pavona diffluens*, *Seritopora aculeata*. None of these species are listed as threatened or endangered. There are currently no prohibitions relating to individual conduct and these species. The only prohibitions apply to the listed elkhorn and staghorn corals in the Caribbean. Additionally, there is no species-specific population information currently available for these species. General threats to these species are factors such as global climate change, and ocean acidification, and possible impacts from human development, changes in native species dynamics, and various fishing practices. However, the severity of these combined threats to the population of each individual species is not known.

In preparing to issue the new general permit, we asked the Services for species lists and any additional information we should consider in evaluating potential effects of the action. We

received no data and information from the Services about potential effects. We also searched for available data and information, but were unable to locate any information that indicated new or different potential effects on these listed species than were evaluated at the time of the last ESA analysis.

In response to our request, the Fish and Wildlife Service in a letter dated February 09, 2018 provided updates to the list of listed species that may be present within or near the project area. In addition to the species listed above, the FWS also indicated that three species of federally endangered snails, the Guan tree snail (*Partula radiolata*), the Humped tree snail (*Partula gibba*) and the Fragile tree snail (*Samoana fragilis*) may be present in the more forested, humid, riverine areas. The plants *Phyllanthus saffordi* and *Hedyotis menaglantha* may be found within or close to the project area. The Services also reiterated that there is no proposed or designated critical habitat within the project area.

EPA's review of this new information from the Services indicates that there is no nexus between the three listed tree snail species and two listed plant species identified and no evidence of direct or indirect effects of this action (authorization of treated wastewater discharge) on any of the newly listed species.

We note that the general permit regulates discharges from the existing facilities in a manner identical to the existing individual permits for those facilities and will result in no differences in effluent quality or receiving water outcomes in comparison to the prior individual permits or through issuance of new individual permits.

Additionally, EPA has included under Special Conditions in the final permit provisions to address potential issues related to artificial lighting, construction, disposal of materials and waste, as well as litter control at any facility covered under this permit.

The principal threats to the listed species (including newly listed species) appear to be factors (such as overharvesting and disease) other than the regulated land-based discharges (including bulk fuel storage facilities). FWS noted that there is no designated or proposed critical habitat near the five facilities and near Apra Harbor (Mehrhoff, 2011).

In summary, Region 9 has reconsidered the potential effects of the discharges on listed species and we conclude that the issuance of this general permit and coverage under the general permit in lieu of the existing individual permits would not affect these species. A draft of the proposed permit and factsheet was provided to the Services. In comments received from the FWS, no concerns were raised about this determination.

**B. Coastal Zone Management Act.** 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 Sections 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 proposed activity complies with the State (or Territory) Coastal Zone Management program, and the State (or Territory) or its designated agency concurs with the certification. All requirements under CZMA Federal Consistency Review provided by the Guam Bureau of Statistics & Plans are incorporated by reference into the permit.

**C. Magnuson-Stevens Fishery Conservation and Management Act.** The 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act set forth a number of new mandates for NMFS, regional fishery management councils, and Federal agencies to identify and protect important marine and anadromous fish habitat. Regional fishery management councils, with assistance from NMFS, are required to delineate essential fish habitat (“EFH”).

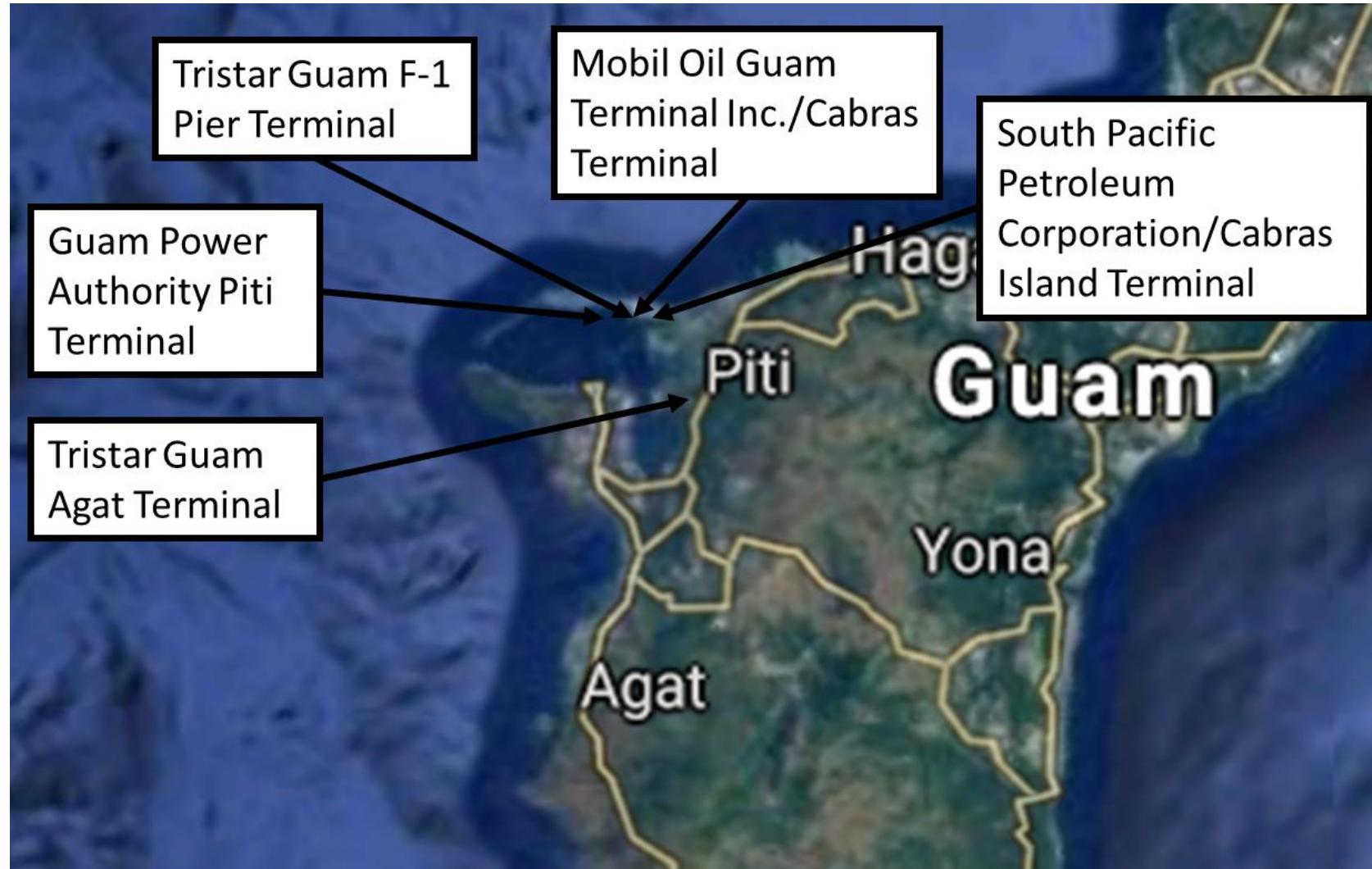
The Magnuson-Stevens Act requires that Federal agencies consult with NMFS on all actions undertaken by the agency which may adversely affect EFH. For the proposed general permit issuance, Region 9 reconsidered the effects of the discharges on EFH. The Southwest Regional Office of NMFS provides updated information concerning EFH on its website at: [http://swr.nmfs.noaa.gov/hcd/HCD\\_webContent/EFH/index\\_EFH.htm](http://swr.nmfs.noaa.gov/hcd/HCD_webContent/EFH/index_EFH.htm). Region 9 found no new requirements or concerns identified which had not been previously considered in each of the individual permits for the five bulk fuel storage facilities.

In summary, Region 9 reviewed the updated EFH information on the NMFS website for any new requirements or information pertaining to the proposed discharges. We found no new information that would change our previous conclusion that the discharges would not have a significant adverse effect on EFH. As such, Region 9 is not initiating consultation at this time, but will forward the draft permit and fact sheet to NMFS for any comments on Region 9’s tentative conclusion concerning the potential effects on EFH.

**D. Paperwork Reduction Act.** The information collection required by this proposed permit has been approved by Office of Management and Budget (“OMB”) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 *et. seq.*, in submission made for the NPDES permit program and assigned OMB control numbers 2040-0086 (NPDES permit application) and 2040-0004 (discharge monitoring reports).

**E. Water Quality Certification Requirements.** For States, Territories, or Tribes with EPA approved water quality standards, on July 2018 EPA requested certification from the Guam Environmental Protection Agency (GEPA) that the proposed permit will meet all applicable water quality standards. Certification under section 401 of the CWA 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 State, Territory, or Tribe has granted certification under 40 CFR 124.55 or waived its right to certify. All requirements pursuant to the 401 Certification issued by GEPA are incorporated by reference into the permit.

Location of Existing Bulk Fuel Storage Terminals in Guam



Map obtained from [www.google.com/maps](http://www.google.com/maps) on March 21, 2017.