

US EPA ARCHIVE DOCUMENT

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**  
**FACT SHEET**

Permittee and Mailing Address: Tristar Terminals Guam Inc.  
Rte. 2A Guam Industrial Highway  
Agat, Guam 96915

Permitted Facility and Address: Tristar Guam F-1 Pier Terminal  
Cabras Island at Foxtrot One Pier  
Piti, Guam 96925

Contact Person: Mr. KK Vikraman  
General Manager  
(671) 565-2300

NPDES Permit No.: GU0020338

**PART I - STATUS OF PERMIT**

Tristar Terminals Guam Inc. (hereinafter, “Tristar Guam” or the “permittee”) has applied for renewal of its National Pollution Discharge Elimination System (“NPDES”) permit pursuant to U.S. Environmental Protection Agency (“EPA”) regulations set forth in Title 40, U.S. Code of Federal Regulations (“CFR”), Part 122.21, for the discharge of treated effluent from tank bottom water draws and storm water runoff from its bulk petroleum storage terminal located at F-1 Pier on Cabras Island, in the municipality of Piti, Guam, which discharges to Apra Harbor. These regulations require any person who discharges or proposes to discharge pollutants from a point source into waters of the U.S. to submit a complete application for a NPDES permit, including a renewal of a permit. The permittee is currently authorized to discharge to Apra Harbor under NPDES permit No. GU0020338, which became effective on July 1, 2009 and expired on June 30, 2014. Pursuant to 40 CFR 122.21, the terms of the existing permit are administratively extended until the issuance of a new permit.

In a letter dated September 17, 2014, Tristar Guam informed EPA that all process and stormwater is collected from this F-1 Pier Terminal facility were transported to the Tristar Agat Terminal for treatment using the on-site water separator at the Tristar Agat facility (NPDES Permit (GU0020150). This has occurred since 2004. The permittee would like to renew permit for the F-1 Pier facility so that if and when it needs to discharge, then GU0020338 permit will be current.

**Proposed permit changes** – the table below provides an overview of change from the existing permit to the proposed permit. NOTE: monitoring is required for first discharge event; however, if no discharge then no monitoring is required.

Parameter/item	Existing Permit	Proposed Permit	Reason for Change
Lead, benzene, toluene, ethylbenzene, xylene	Monitoring frequency once/ discharge	Monitoring frequency once/year	<b>Decrease in frequency based on Best professional judgment</b>
Toxicity	Not included	Monitoring only, once per permit cycle	Best professional judgment
Outfall 002	Included	Removed	Outfall eliminated, discharge from tank truck loading area goes directly into on-site water separator

## PART II - DESCRIPTION OF FACILITY

The permittee operates a bulk petroleum storage terminal located at F-1 Pier on Cabras Island, Guam. The facility utilizes several tanks to store and distribute gasoline, liquefied petroleum gas, residual fuel oil, and jet fuel to on-island facilities and/or companies. The facility encompasses 1.3 acres and contains two storage tanks. The facility was owned and operated by Shell Guam Inc. until November of 2009 when it was purchased by Tristar Terminals Guam Inc.

## PART III - DESCRIPTION OF RECEIVING WATER

Guam Environmental Protection Agency (“GEPA”), GEPA classifies Apra Harbor as a Category M-3 (“Fair” quality) marine water in the vicinity of Outfall 001 and 002, according to *Guam Water Quality Standards, 2001 Revision* (Public Law 26-113, June 18, 2002, Guam Environmental Protection Agency). Guam’s water quality standards state that “water in this category is intended for general, commercial and industrial use, while allowing for protection of aquatic life, aesthetic enjoyment and compatible recreation with limited body contact. Specific intended uses include the following: shipping, boating and berthing, industrial cooling water, and marinas.” During facility operations, the permittee discharges to Apra Harbor through the following discharge outfalls:

Discharge Outfall No.	Latitude	Longitude	Outfall Description
001	13 27 '42" N	144 39'49" E	Drainage from bulk storage area and Pipeline Receipt and Transfer Manifold Area

## **PART IV - DESCRIPTION OF DISCHARGE**

Discharge from the facility consists primarily of non-contact storm water and small volumes of tank bottom water draws, which originate at the lowest inner part of a petroleum storage tank where liquid drains from the interior spaces as a result of rainwater accumulation and water condensation from the petroleum product itself; ship to shore transference spills and leaks. In a letter dated September 17, 2014, Tristar Guam informed EPA that all discharges from this F-1 Pier Terminal facility were transported to the Tristar Agat Terminal for treatment using the OWS at the Tristar Agat facility (NPDES Permit (GU0020150). This has occurred since 2004.

If discharges from F-1 Pier facility occur, then such discharges will occur through Outfall 001 to the Apra Harbor. Historical DMR data indicates fluctuations in flow rate, when occurred in the past, ranged from less than 500,000 gallons a day to over 2,000,000 gallons per day.

### **B. Monitoring Data and Inspection Report Results**

No monitoring results are available from this facility since it has not discharged from the F-1 Pier terminal during the existing permit term.

EPA inspected the facility in January 2014. The inspection report included the following findings and recommendations:

- Spill Prevention Control and Countermeasure Plan and Pollution Prevention Plan were not available at time of inspection.
- Facility SIC code is recommended to revise from current 291 – “petroleum refining” to 5171 – “petroleum bulk stations and terminals.”

## **PART V – DETERMINATION OF NUMERIC EFFLUENT LIMITATIONS**

As federal guidelines have not been promulgated for bulk oil storage and transfer facilities, limitations were established using:

1. Guam water quality standards, revised and approved by Guam on June 18, 2002;
2. National Recommended Water Quality Criteria, December 2004; and
3. Best Professional Judgment

The Guam water quality standards categorize the Apra Harbor M-3 (FAIR). M-3 waters are defined as being marine water that is intended for general, commercial and industrial use, while allowing for protection of aquatic life, aesthetic enjoyment and compatible recreation with limited body contact. Specific intended uses include the following: shipping, boating and berthing, industrial cooling water, and marinas.” According to the Guam water quality standards, Saltwater acute and chronic and human health standards are applicable to all toxic pollutants discharged in category M-3 waters.

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.

#### A. Technology-based Effluent Limitations

The draft permit contains a technology-based effluent limit for oil and grease since oil and grease are common components of oily wastewater, and was found to be in the effluent discharge at a concentration that exceeded the technology-based effluent limit of 15 mg/l in the previous permit. 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 other similar facilities that treat oily wastewater and facility storm water in Guam. In addition to this technology-based numeric limit, the narrative water quality-based limit for oil and grease, such as prohibiting visible sheening, are included in the draft permit.

#### B. 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. Such procedures include a Reasonable Potential Analysis ("RPA"), which was conducted for each potential pollutant or parameter below, except pH. The RPA was based on statistical procedures outlined in EPA's *Technical Support Document for Water Quality-based Toxics Control*, Second Printing (EPA/505/2-9-001). These statistical procedures result in the calculation of the potential maximum effluent concentration-based on monitoring data provided by the permittee. Due to the limited monitoring data available ( $n=20$ ) and the high degree of effluent variability, maximum effluent concentrations were estimated using a coefficient of variation of 0.6 and the 99 percent confidence interval of the 99<sup>th</sup> percentile based on an assumed lognormal distribution of daily effluent values (*Technical Support Document for Water Quality-based Toxics Control*, Second Printing, Sections 3.3.2 and 5.5.2,

EPA/505/2-9-001). The maximum effluent concentration was then compared to the Guam water quality standard to determine reasonable potential. Table 2 provides a detailed RPA for each pollutant or parameter that causes, has the reasonable potential to cause, or contributes to an exceedance of Guam water quality standards.

For all parameters or pollutants that show a reasonable potential based on the statistical approach, numeric water quality-based effluent limits were included in the draft permit and are described below (40 CFR 122.44(d)(1)). Water quality-based effluent limits were established without consideration of a mixing zone. In addition, for all reissued permits, section 402(o) of the CWA and 40 CFR 122.44(l) require permit limitations and conditions to be as stringent as the previous permit unless specific exceptions apply. The draft permit contains no specific exceptions. Table 3 provides a summary of effluent limitations, monitoring frequency, and sample types for each pollutant or parameter in the draft permit that was shown reasonable potential to cause, or contribute to an exceedance of Guam water quality standards.

Table 3 - Proposed effluent limitations, monitoring frequency, and sample type for each pollutant or parameter for Discharge Outfall Nos. 001.

Pollutant/Parameter	Daily Max. Allowable Effluent Limitation	Monitoring Requirements	
		Monitoring Frequency	Sample Type
Flow Rate (MGD) <sup>1</sup>	NA <sup>2</sup>	Continuous	Metered
pH (Std. Units) <sup>3</sup>	6.5 to 8.5	Once/Month	Grab
Oil and Grease (mg/l)	15	Once/Month	Grab

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

<sup>2</sup>NA means not applicable since no numerical effluent limits are established for the pollutant or parameter; only monitoring and reporting is required for the duration of the permit.

<sup>3</sup>pH effluent limits reported as minimum/maximum concentrations; pH shall be measured at the time of sampling.

1. *pH* - The range of pH values is based on Guam’s water quality standards, which require that all marine waters, including Category M-3 marine waters, maintain a pH range of 6.5 to 8.5. Therefore, the proposed pH range for the effluent is 6.5 to 8.5.
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 it is commonly found in wastewater and storm water from bulk petroleum storage facilities and, based on the RPA, has a reasonable potential to cause, or contributes 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)).

#### **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. The permit does not establish any effluent limits less stringent than those in the previous permit and does not allow backsliding.

#### **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 not expected that the discharge will adversely affect receiving water bodies.

### **NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITS**

Sections 5103 and 5104 of Guam water quality standards contain narrative water quality effluent limits that apply to Category M-3 marine waters and that are applicable to the effluent. The draft permit proposes narrative water quality-based effluent limits consistent with those included within the Guam water quality standards.

### **PART VI – MONITORING AND REPORTING REQUIREMENTS**

The permit requires the permittee to continue to monitor for pollutants or parameters with technology-based effluent limits (i.e., oil and grease) and water quality-based effluent limits (i.e., pH) in the effluent for the duration of the draft permit. Pollutants or parameters with water quality-based effluent limits shall be monitored once per month with grab sampling methods. The permit also requires toluene, ethylbenzene and xylene to be monitored for once per year using the same methodology.

In accordance with federal regulations, the permittee must conduct a Priority Toxics Pollutants scan during the fourth year of permit cycle, so effluent results can be reviewed prior to next permit cycle and to ensure the discharge does not contain toxic pollutants in concentrations that may cause violation of water quality standards. 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, then during next cycle, this permit may include appropriate numeric limits for those parameters with exceedances.

The draft permit also requires photo documentation of the discharged effluent once per quarter. This is a new requirement. All monitoring, sampling, and analyses shall be performed as described in the most recent edition of 40 CFR 136, unless otherwise specified in the draft permit. All monitoring data must be reported on monthly DMR forms and submitted quarterly to

EPA and the Guam Environmental Protection Agency (“Guam EPA”), as specified in the draft permit.

## **PART VII - SPECIAL CONDITIONS**

Permits issued by EPA require State review and certification under Section 401 of the Clean Water Act (CWA) ensures that the permit will comply, not only with applicable Federal standards under the CWA, but also with State water quality standards. Therefore EPA will forward this draft permit and factsheet to Guam EPA and request CWA Section 401(a)(1) certification.

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 Apra Harbor and other surface waters while maintaining, transporting, and storing petroleum products or other potential pollutants at the facility.

## **PART VIII – OTHER CONSIDERATIONS UNDER FEDERAL LAWS**

### **A. Endangered Species Act**

The discharge is to Apra Harbor which connect to the Phillipine Sea and the Pacific Ocean. EPA contacted NOAA National Marine Fisheries for a list of the threatened and endangered species within Apra Harbor. The list includes: Green Sea Turtle (*Chelonia mydas*), Hawksbill Sea 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*).

EPA provided the Services with copies of this fact sheet and the draft permit during the public notice period. No comments were received from the Services regarding issuance of the permit.

The permit is a reissuance of a permit for an existing facility. No new construction, new pipelines, land, habitat, or hydrology alterations are associated with the permit reissuance. The effluent limitations in this reissued permit are all as stringent as or more stringent than those in the previous permit. 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.

Thus, EPA believes this permit reissuance will not affect any federally listed threatened and endangered species under the NOAA National Marine Fisheries or US Fish and Wildlife

Services jurisdictions that may be present in the area of discharge. 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 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.

Guam Bureau of Population and Statistics issued a CZMA consistency letter on May 1, 2015.

## **C. Impact to Essential Fish Habitat**

The 1996 amendments to the Magnuson-Stevens Fishery Management and Conservation Act (MSA) set forth a number of new mandates for the National Marine Fisheries Service (NMFS), 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) in marine environments.

## **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 either listed on, or eligible for listing on, the National Register of Historic Places. Pursuant to federal requirements of NHPA and 36 CFR 800.3(a)(1), EPA has determined that the draft permit does not have the potential to affect any historic or cultural properties.

# **PART X - ADMINISTRATIVE INFORMATION**

## **A. Public Notice**

In accordance with 40 CFR 124.10, the EPA Director shall give public notice that a draft NPDES permit has been prepared under 40 CFR 124.6(d) by mailing a copy of the notice to the permit applicant and other federal and state agencies, and through publication of a notice in a daily or weekly newspaper within the area affected by the facility. The public notice shall allow at least 30 days for public comment on the draft permit.

## B. Public Comment Period

EPA issued a public notice from March 3 to April 5, 2015 soliciting public comment on the permit; no comments were received.

## C. Public Hearing

In accordance with 40 CFR 124.12, the EPA Director shall hold a public hearing whenever she finds, on the basis of requests, a significant degree of public interest in a draft permit. The Director may also hold a public hearing when, for instance, such a hearing might clarify one or more issues involved in the permit decision. Public notice of such hearing shall be given as specified in 40 CFR 124.10. EPA does not believe a public hearing is necessary for the Tristar F-1 Pier facility at this time.

## D. Water Quality Certification Requirements

In accordance with 40 CFR 124.53, under section 401 of the Act, EPA may not issue a permit until a certification is granted or waived in accordance with that section by the State or Territory in which the discharge originates or will originate. EPA shall send Guam EPA a copy of the draft permit, a statement that EPA cannot issue or deny the permit until the Territory of Guam has granted or denied certification under 40 CFR 124.55, or waived its right to certify, and a statement that the Territory of Guam will be deemed to have waived its right to certify unless that right is exercised within a specified reasonable time not to exceed 60 days from the date the draft permit is mailed to Guam EPA unless EPA Regional Administrator finds that unusual circumstances require more a longer time. Territorial certification under 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.

Guam EPA provided 401 certification on June 1, 2015 and EPA has incorporated their conditions into the final permit.