

US EPA ARCHIVE DOCUMENT

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

PROPOSED PERMIT

FACT SHEET

June 15, 2010

Facility Name: American Samoa Terminal
(a.k.a. Utulei Petroleum Terminal, Fuel Dock, and Tank Farm)

Permittee Name: Pacific Energy South West Pacific Ltd.

Mailing Address: P.O. Box 488
Pago Pago, AS 96799

Type of Facility: Petroleum Bulk Storage Terminal

SIC Code: 5171

Facility Location: 488 Tank Farm Road
Pago Pago, AS 96799

Contact Person(s): William Sword
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NPDES Permit No.: AS0020028

I. STATUS OF PERMIT

On September 7, 2007, BP South West Pacific Ltd. (BP) applied to the U.S. Environmental Protection Agency, Region IX (USEPA) for renewal of its National Pollutant Discharge Elimination System (NPDES) permit for the discharge of tank bottom water draws, hose pressure hydro test waters, and storm water runoff from the American Samoa Terminal (a.k.a. Utulei Petroleum Terminal, Fuel Dock, and Tank Farm) to Pago Pago Harbor, located in Pago Pago, American Samoa. Until recently, BP operated the facility by lease under the American Samoa Government. The American Samoa Government put the Terminal Operator contract out to bid and will award the contract on July 30, 2010. In the interim, BP was sold to Pacific Petroleum Company, operating as Pacific Energy South West Pacific Ltd. Until the contract is transferred, the Terminal will operate under Pacific Energy South West Pacific Ltd (permittee). As the Territory of American Samoa (AS) has not been delegated primary regulatory responsibility for administering the NPDES program, USEPA is issuing a NPDES permit which incorporates both federal CWA and AS water quality requirements.

Pursuant to the USEPA regulations set forth in Title 40, Code of Federal Regulations (CFR) Part 122.21, the discharge is regulated under NPDES Permit No. AS0020028, which was issued on March 10, 2003, and expired on March 9, 2008. All the terms and conditions of the 2003 permit are administratively extended until the reissuance of a new permit. This fact sheet is based on the facts presented by the applicant in both the application and any other discharge data submitted, along with the appropriate laws and regulations. Pursuant to Section 402 of the Clean Water Act (CWA), USEPA is proposing issuance of the NPDES permit renewal to Pacific Energy South West Pacific Ltd for the discharge of tank bottom water draws, hose pressure hydro test waters, and storm water runoff to Pago Pago Harbor.

This permit has been classified as a Minor discharger.

II. GENERAL DESCRIPTION OF FACILITY

The American Samoa Terminal is located adjacent to Pago Pago Harbor in American Samoa. Gasoline, low-sulfur diesel, high-sulfur marine diesel, and jet fuel A-1 arrive by ship at the fuel dock, which is located approximately one kilometer to the west, with three underground pipelines leading to the petroleum terminal. Vessels are fueled at the dock. The main terminal is located in the village of Utulei and consists of ten tanks, double-bottomed and roofed, for storage and delivery. The tank farm and fueling areas are bermed, graded and sized to provide secondary containment. There are also two loading racks, one top fill, one bottom fill, and three oil/water separators at the terminal. The loading racks fill 5,000 gallon tanker trucks. The facility also operates the airport satellite tank farm, which supplies the airport fuel. The existing NPDES permit does not include any discharge water from the airport tank farm.

III. DESCRIPTION OF RECEIVING WATER

The American Samoa Government designated Pago Pago Harbor to be developed into a transshipment center for the South Pacific. The AS Environmental Quality Commission has developed a separate set of standards for Pago Pago Harbor due to its unique position as an embayment where water quality has been degraded from the natural condition (ASEQC, 2005).

Protected uses for Pago Pago Harbor include:

- (i) Recreational and subsistence fishing;
- (ii) Boat-launching ramps and designated mooring areas;
- (iii) Subsistence food gathering; e.g. shellfish harvesting;
- (iv) Aesthetic enjoyment;
- (v) Whole and limited body-contact recreation, e.g. swimming, snorkeling, and scuba diving;
- (vi) Support and propagation of marine life;
- (vii) Industrial water supply;
- (viii) Mariculture development;
- (ix) Normal harbor activities; e.g. ship movements, docking, loading and unloading, marine railways and floating drydocks; and
- (x) Scientific investigations.

The Pago Pago Watershed ocean shoreline was listed in 2004 under CWA Section 303(d), as impaired due to enterococcus and the TMDL is planned for 2015 (Vaouli et al. 2008). USEPA approved a TMDL for Pago Pago Inner Harbor mercury and PCBs in fish tissue in February 2007, but no wasteload allocations were designated for this facility (Tetra Tech, 2006).

IV. DESCRIPTION OF DISCHARGE

Storm water runoff, tank bottom water draws and hose pressure hydro test waters discharge from two outfalls. Outfall 002 discharges from the main terminal to Pago Pago Harbor while outfall 003 discharges from the fuel dock to Pago Pago Harbor. Run-off from the paved parking lot and other non-operational paved areas also drain to the Harbor, (referred to as outfall 001 in existing permit), but storm water from areas separate from industrial activities are not required to

be permitted [40 CFR 122.26(a) and (b)(14)]. Maps of the three areas described below are found in the inspection report and are attached (Attachment A).

Three drainage areas discharge to outfall 002. The first drainage area, designated as Area B, encompasses the bottom fill loading rack and adjacent paving. The second, Area C, includes six storage tanks inside a secondary containment berm. The third, Area D, encompasses four tanks within a secondary containment berm and the top fill loading rack. All three areas have separate oil/water separators, each of which discharges through outfall 002. The oil/water separator for Area B has a bypass line.

The fuel dock discharges to outfall 003. The fore dock houses the delivery hose reels and valving within separate secondary containment berms. The fore dock is sloped to drain to an interceptor ditch which leads to an oil/water separator prior to discharge via outfall 003.

The wastewater sources at the facility are tank bottom water draws, loading rack drainage, tank farm drainage, fuel dock drainage, and hose pressure test water. Tank bottom water is drained daily in Area C and weekly in Area D to extract condensate and entrained waters from the product tanks. Loading rack spills, washdowns and storm water drain through floor drains to Area B and Area D oil/water separators prior to discharge via outfall 002. Storm water run-off, spills, and released tank bottom waters within the tank secondary containments discharge to Area C and D oil/water separators and then to outfall 002. The fore dock drains any storm-water, spills or hose pressure test water to an oil/water separator, which flows to outfall 003.

A. Recent Discharge Monitoring Report (DMR) Data (2004-2009)

Table 1 provides a summary of the existing permit effluent limitations and monitoring data based on the facility's most recent DMRs. Although the existing permit required some parameters to be monitored monthly or quarterly, BP only sampled 5 times during 2004 through 2008. One of the 5 sample dates only showed results for outfall 003's flow, pH, and oil & grease. The monitoring data shown in Table 1 for flow, pH, and oil & grease are based on results from the 5 sample dates plus monthly DMR reports from July 2009 through December 2009 (excluding August). The turbidity data is based on results from 4 sample dates plus the last three quarterly samples and the benzene, ethylbenzene, toluene, and lead monitoring data are based on 4 sample dates plus one yearly sample, taken in March 2009. Based on the DMRs, the discharges at outfalls 001, 002, and 003 met the existing permit limitation for oil & grease, but did not meet the limitations for pH.

Table 1. Discharge Monitoring Report data for years 2004 through 2009.

| Parameter | Units | Existing Permit Effluent Limitations | | | Discharge Monitoring Data | | | Monitoring Requirements | |
|--------------------|----------------|--------------------------------------|----------------|-----------------|---------------------------|------------------------|-----------------------|-------------------------|-------------|
| | | Average Monthly | Average Weekly | Maximum Daily | Highest Average Monthly | Highest Average Weekly | Highest Maximum Daily | Monitoring Frequency | Sample Type |
| Outfall 001 | | | | | | | | | |
| Flow | gpd | -- | -- | Monitoring Only | -- | -- | 3,179,000 | 1/Month | Estimate |
| Oil & Grease | mg/l | -- | -- | 15 | -- | -- | 1.21 | 1/Month | Grab |
| Benzene | mg/l | -- | -- | Monitoring Only | -- | -- | ND | 1/Year | Grab |
| Ethylbenzene | mg/l | -- | -- | Monitoring Only | -- | -- | ND | 1/Year | Grab |
| Toluene | mg/l | -- | -- | Monitoring Only | -- | -- | ND | 1/Year | Grab |
| Lead | mg/l | -- | -- | Monitoring Only | -- | -- | ND | 1/Year | Grab |
| pH | Standard Units | Not < 6.5 SU, Not > 8.6 SU | | | 6.0 minimum | -- | 8.2 | 1/Month | Grab |
| Turbidity | NTU | -- | -- | Monitoring Only | -- | -- | 6.74 | 1/Quarter | Grab |
| Outfall 002 | | | | | | | | | |
| Flow | gpd | -- | -- | Monitoring Only | -- | -- | 3,128,136 | 1/Month | Estimate |
| Oil & Grease | mg/l | -- | -- | 15 | -- | -- | ND | 1/Month | Grab |
| Benzene | mg/l | -- | -- | Monitoring Only | -- | -- | ND | 1/Year | Grab |
| Ethylbenzene | mg/l | -- | -- | Monitoring Only | -- | -- | 1.14 | 1/Year | Grab |
| Toluene | mg/l | -- | -- | Monitoring Only | -- | -- | 1.08 | 1/Year | Grab |
| Lead | mg/l | -- | -- | Monitoring Only | -- | -- | 5.65 | 1/Year | Grab |
| pH | Standard Units | Not < 6.5 SU, Not > 8.6 SU | | | 6.0 minimum | -- | 8.4 | 1/Month | Grab |
| Turbidity | NTU | -- | -- | Monitoring Only | -- | -- | 6.01 | 1/Quarter | Grab |
| Outfall 003 | | | | | | | | | |
| Flow | gpd | -- | -- | Monitoring Only | -- | -- | 762,960 | 1/Month | Estimate |
| pH | Standard Units | Not < 6.5 SU, Not > 8.6 SU | | | 6.0 minimum | -- | 8.8 | 1/Month | Grab |
| Oil & Grease | mg/l | -- | -- | 15 | -- | -- | 1.1 | 1/Month | Grab |

A numeric receiving water limitation for **temperature** (no more than 1.5 degrees Fahrenheit (0.9°C)) was included in the existing permit, but BP did not submit receiving water data.

V. SIGNIFICANT CHANGES TO PREVIOUS PERMIT

A. NPDES Permit Points of Compliance

Based on USEPA's inspection of the facility and report, dated March 7, 2009, the sampling points defined in the proposed permit have changed from those defined in the

previous permit. The facility still discharges through outfall 002 and 003; however, these outfalls combine discharges from multiple oil/water separators, could carry unregulated storm water from non-process and off-site areas, and were rarely self-monitored due to sampling difficulty posed by low flows. Thus, the proposed permit defines the sampling points as located at the four oil/water separators. Sampling point 002B is the oil/water separator from Area B that includes a loading rack. This oil/water separator also has a bypass, called 002BX in the proposed permit. Sampling points 002C and 002D are the oil/water separators for Areas C and D that include the tank farms. Sampling point 003 is the oil/water separator at the fuel dock. Sampling points 002B/BX, 002C, 002D, and 003 are the points of compliance for the proposed permit. In addition, the permit requires weekly visual monitoring of sheen, floatables, and other parameters required by narrative water quality standards at outfalls 002 and 003.

B. Effluent Limits

The previous permit included effluent limits for pH and oil & grease. These effluent limits are retained in the proposed permit; however, based on the reasonable potential analysis, additional water quality-based effluent limits for turbidity, lead, ethylbenzene, total nitrogen, total phosphorus, and zinc are included.

C. Monitoring

The previous permit included monthly monitoring for flow, oil & grease, and pH; quarterly monitoring for turbidity; and annual monitoring for benzene, ethylbenzene, toluene, and lead. The proposed permit includes more frequent (weekly) monitoring of flow, pH, and turbidity based on the daily and weekly tank bottom water draw operations at the facility. More frequent (monthly) monitoring of benzene, toluene, and lead is also included. The proposed permit includes additional monitoring of pollutants common in tank bottom water draws, based on the Technical Support Document for the 2004 Effluent Guidelines Program Plan (USEPA, 2004). These additional parameters include xylene, ammonia, biochemical oxygen demand, chemical oxygen demand, total suspended solids, total dissolved solids, and salinity. Temperature monitoring is included in the proposed permit to coincide with ammonia monitoring as ammonia is pH and temperature-dependent.

Quarterly monitoring for volatile and semi-volatile organic compounds using EPA methods 624 and 625, and annual monitoring for the remainder priority toxic pollutants are also included in the proposed permit.

VI. DETERMINATION OF NUMERICAL EFFLUENT LIMITATIONS

The Clean Water Act (CWA) requires point source dischargers to control the amount of pollutants that are discharged to waters of the U.S. The control of pollutants is established through effluent limitations and other requirements in NPDES permits. When determining effluent limitations, USEPA must consider limitations based on the technology used to treat the pollutant(s) (i.e., technology-based effluent limits) and limitations that are protective of water quality standards (i.e., water quality-based effluent limits).

A. Applicable Technology-based Effluent Limitations

USEPA established national standards based on the performance of treatment and control technologies for wastewater discharges to surface waters for certain industrial categories.

Effluent limitations guidelines represent the greatest pollutant reductions that are economically achievable for an industry, and are based on Best Practicable Control Technology (BPT), Best Conventional Pollutant Control Technology (BCT), and Best Available Technology Economically Achievable (BAT), (Sections 304(b)(1), 304(b)(4), and 304(b)(2) of the CWA respectively). The American Samoa Terminal is a petroleum bulk storage terminal. USEPA considered the need for effluent limitations guidelines 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 (USEPA, 2004).

In accordance with 40 CFR 122.44(a), the proposed permit includes technology-based effluent limits for oil and grease based on effluent data and the nature of the discharge. The proposed permit includes monitoring requirements for conventional pollutants, such as biochemical oxygen demand (BOD), chemical oxygen demand (COD), total suspended solids (TSS) and total dissolved solids (TDS) at sampling points 002C and 002D, as they are commonly found in tank bottom water draws (USEPA, 2004).

Oil & Grease. Oil and grease is commonly found in wastewater and storm water from petroleum bulk storage facilities. USEPA proposes discharge limitations for oil and grease based on USEPA's Best Professional Judgment (BPJ) since (1) there are no applicable effluent limitation guidelines and performance standards for oil and grease, and (2) the existing permit limit of 15 mg/L is consistent with other bulk storage terminal permits. 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. USEPA proposes to carry over from the existing permit a daily maximum effluent limitation of 15 mg/l at sampling points 002B/BX, 002C, 002D and 003. The DMRs show the facility has complied with the BPJ-based numeric limit in the existing permit. Additional monitoring requirements are included to assess compliance with the narrative water quality standards discussed below.

B. Water Quality-Based Effluent Limitations ("WQBELs")

Water quality-based effluent limitations, or WQBELS, 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 nonpoint 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)).

USEPA evaluated the reasonable potential to discharge toxic pollutants according to guidance provided in the Technical Support Document for Water Quality-Based Toxics Control (TSD) (USEPA, 1991) and the U.S. EPA NPDES Permit Writers Manual (USEPA, 1996). USEPA considered the following factors:

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

1. Applicable standards, designated uses and impairments of receiving water

The American Samoa Environmental Quality Commission's 2005 Water Quality Standards for Pago Pago Harbor establish water quality standards for the designated uses listed above in Section III. Description of Receiving Water.

In 2008, the coastal waters of the Pago Pago Watershed were listed under CWA Section 303(d) as impaired for enterococcus, mercury, and PCBs. As stated above, in 2007, USEPA approved a TMDL for Pago Pago Inner Harbor mercury and PCBs in fish tissue, but no wasteload allocations were designated for this facility. A TMDL for enterococcus is planned for 2015.

2. Dilution in the receiving water

American Samoa's water quality standards require that water quality standards be achieved without mixing zones unless the permittee applies and is approved for a mixing zone (Section 24.0207 of American Samoa Water Quality Standards, 2005 Revision, Administrative Rule No. 006-2005). The permittee does not have an approved mixing zone, so dilution is not considered in the calculation of water quality-based effluent limits for the proposed permit.

3. Type of industry

The typical waste streams from petroleum bulk storage terminals include tank bottom water draws, hose pressure hydro test waters, and storm water run-off. According to the Technical Support Document for the 2004 Effluent Guidelines Program Plan (USEPA, 2004), the most common pollutants in tank bottom water draws 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, benzene, toluene, ethylbenzene, xylene, and surfactants. Storm water runoff can become contaminated by coming in contact with spills, leaks, improperly stored materials and wastes, and an inadequately cleaned facility. 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. Although lead is being phased out as an additive in gasoline, and leaded gasoline has been banned for on-road vehicles, it may still be used for off-road use, such as marine engines. Additionally, unleaded gasoline contains low levels of lead. Since the discharges come into contact with petroleum products, including gasoline, and because oil-water separators are the only means of treatment, it is reasonable to expect that these pollutants may be discharged to surface waters.

4. History of compliance problems and toxic impacts

In March 2008, USEPA inspected the facility. The facility seemed to be well run, employing a number of operational and design controls to minimize the loss of product into the wastewater with consistent certification of the facility's pollution prevention plan. However, it did not comply with the sampling and monitoring requirements of the existing NPDES permit.

According to the inspection report, the sample record and therefore, the monitoring reports, were incomplete and unlikely to be representative of discharges to the harbor. In the five years between 2004 and 2008, BP collected samples on only five occasions even though the permit requires monthly sampling and quarterly reporting. Prior to the inspection, the last time samples were taken was in January of 2006. BP explained the failure to sample with the following statement provided in the discharge monitoring report cover letters:

"...no samples were taken due to low flow or schedule conflicts (confined space permit required now to take sample from oil water separator sample points)."

The inspection report indicated that, although the limited sample record showed pollutant levels to be below permit limits, it is unlikely to be representative of both storm water run-off and process wastewaters unrelated to storm events. The sampling points in the existing permit only had high enough flow to sample during storm events, as process wastewaters, such as tank bottom water draws flow through oil/water separators before discharge. As a result, the inspection report suggests sampling be performed at each oil/water separator during tank bottom water draws and hose pressure tests, in addition to sampling during storm events.

Based on the inspection findings, USEPA sent BP an Administrative Order (CWA-309(a)-09-011) on March 19, 2009 to establish a self-monitoring program, which would ensure representative sampling of all wastewater discharges to the harbor and to establish a usable sample record for reissuance of the NPDES permit. Since the Order, BP submitted monthly Discharge Monitoring Reports (DMRs) from July 2009 through December 2009 (excluding August) for flow, pH, and oil & grease. The DMRs state that BP did not receive the sample kits in time for the August sampling event. BP submitted one annual report in January 2010 of samples collected in March 2009 and analyzed for lead, toluene, benzene, and ethylbenzene. BP also submitted the 2nd, 3rd, and 4th 2009 quarterly monitoring reports for turbidity. Laboratory reports for samples collected from March 2009 through June 2009, included results for BOD, benzene, ethylbenzene, toluene, nutrients, total cyanide, phenols, arsenic, and lead; however the laboratory received the samples at a high temperature of 20 degrees C, many were not preserved with the appropriate preservatives, and holding times were not met.

Although the Order specified the monitoring to be performed at the four oil/water separators (002B/BX, 002C, 002D, and 003), the 2009 DMRs reported results from sampling points 001, 002 and 003. According to BP (email from Nick King, January 8, 2010), sampling point 002B (loading rack area) has been out of service since before the Order, as the pipeline leading to the oil/water separator is in need of repair, and sampling point 002D (tank Area D) was temporarily out of service for repairs. BP explained that sampling point 002C is the same as 002, reported in the DMRs.

As shown in Table 1, the discharge is not meeting the minimum or maximum permit limitations for pH. As BP has not been monitoring at representative sampling points at the

frequency required by the existing permit, and the laboratory reports indicate samples arriving in poor condition, it is difficult to assess the reliability of the data. Additionally, sample identification needs to be more consistent. Thus, the proposed permit specifies representative sampling stations and requires the permittee to prepare and implement a quality assurance/quality control plan.

5. Existing data on toxic pollutants

For pollutants with effluent data available, USEPA conducted a reasonable potential analysis based on statistical procedures outlined in USEPA's Technical Support Document for Water Quality-based Toxics Control, herein after referred to as USEPA's TSD (USEPA 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 assuming a coefficient of variation of 0.6 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 USEPA's TSD). USEPA calculated the projected maximum effluent concentration for each pollutant using the following equation:

$$\text{Projected maximum concentration} = C_e \times \text{reasonable potential multiplier factor.}$$

Where, "Ce" is the reported maximum effluent value and the multiplier factor is obtained from Table 3-1 of the TSD.

Table 2. Summary of Reasonable Potential Statistical Analysis⁽¹⁾

| Parameter | Maximum Observed Concentration (µg/L) or other | n ⁽²⁾ | RP Multiplier | Projected Maximum Effluent Concentration (µg/L) or other | Most Stringent Water Quality Criterion ⁽³⁾ (µg/L) or other | Statistical Reasonable Potential? |
|-------------------------|--|------------------|---------------|--|---|-----------------------------------|
| Turbidity | 6.01 NTU | 7 | 3.5 | 21.04 NTU | 0.75 NTU | yes |
| Lead | 5,650 | 6 | 3.8 | 21,470 | 8.1 | yes |
| Benzene | ND ⁽⁴⁾ | 6 | -- | -- | 51 | no |
| Ethylbenzene | 1,140 | 6 | 3.8 | 4,332 | 2,100 | yes |
| Toluene | 1,080 | 6 | 3.8 | 4,104 | 15,000 | no |
| Total Nitrogen (as N) | 2,910 | 3 | 5.6 | 16,296 | 200 | yes |
| Total Phosphorus (as P) | 190 | 3 | 5.6 | 1,064 | 30 | yes |
| Zinc | 27 | 1 | 13 | 351 | 81 | yes |

⁽¹⁾Parameters considered for RP analysis were parameters found in the previous permit, laboratory reports and the 2010 priority pollutant scan.

⁽²⁾Number of samples is based on monthly monitoring data for outfalls 002 and 003, quarterly and annual data for outfall 002, and the 2010 priority pollutant scan.

⁽³⁾Water quality standards are based on 2005 American Samoa WQS. Lead, benzene, ethylbenzene, toluene, and zinc are included under Section 24.0206(g), which cites USEPA criteria.

⁽⁴⁾Non-Detects are considered zeroes for the purposes of the RP analysis.

C. Rationale for Effluent Limits - Reasonable Potential Analysis

USEPA 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. Where effluent concentrations of toxic parameters are unknown or are not reasonably expected to be discharged in concentrations that have the reasonable potential to cause or contribute to violations of water quality standards, USEPA 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.

Flow. Based on the DMR data, monthly flow estimates range from approximately 0.26 MGD to 3.1 MGD at outfall 002, and from approximately 0.01 MGD to 0.76 MGD at outfall 003. No limits are established for flow, but flow rates must be monitored and reported. Monitoring for flow at sampling points 002B/BX, 002C, 002D, and 003 is required weekly at the time of discharge.

Oil & Grease. As previously described, the proposed permit includes a numerical technology-based effluent limit for oil and grease (15 mg/l). In addition, the proposed permit includes narrative water quality-based requirements for oil and grease. Section 24.0206(b) of AS Water Quality Standards provides narrative requirements for oil and grease, stating, “[waters] shall be substantially free from visible floating materials, grease, oil, scum, foam, and other floating material attributable to sewage, industrial wastes, or other activities of man.” The proposed permit requires monthly discharge monitoring for oil & grease at sampling points 002B/BX, 002C, 002D, and 003 and weekly visual monitoring for sheen and floatables at the time of discharge at outfalls 002 and 003.

pH. Section 24.0206(m) of the AS Water Quality Standards sets specific pH requirements for Pago Pago Harbor. The pH range shall be 6.5 to 8.6 and be within 0.2 pH units of that which would occur naturally. The discharge monitoring data shows pH values ranged between 6.0 and 8.4 at outfall 002 and between 6.0 and 8.8 at outfall 003. The discharge is not meeting the minimum or maximum permit limitations for pH. USEPA proposes to retain the existing pH limitations in the proposed permit. Monitoring for pH at sampling points 002B/BX, 002C, 002D, and 003 is required weekly as a field measurement.

Turbidity. Based on the reasonable potential analysis, USEPA determined the discharge has a reasonable potential to cause or contribute to an exceedance of the turbidity water quality standard for Pago Pago Harbor, found in Section 24.0206(m) of the AS Water Quality Standards. The proposed water quality-based effluent limitation for turbidity is a maximum daily limit of 0.75 NTU. Monitoring for turbidity at sampling points 002B/BX, 002C, 002D, and 003 is required weekly as a field measurement.

Lead. Based on the reasonable potential analysis, USEPA determined that the discharge has a reasonable potential to cause or contribute to an exceedance for lead. Section 24.0206(g)(3) of the AS Water Quality Standards refers to USEPA’s federal criteria for toxic pollutants in embayments, open coastal waters and ocean waters: “Except as may be allowed by the EQC within a Zone of Mixing (§24.0207), the concentration of toxic pollutants shall not exceed the more stringent of the aquatic life criteria for marine waters or the human health concentration criteria for consumption of organisms found in USEPA 2002 or the most recent version.” Therefore, the proposed permit contains effluent limits for lead based on the saltwater chronic and acute WQS for the protection of aquatic life from USEPA’s National

Recommended Water Quality Criteria (USEPA, 2002b). The QBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 14 µg/L and an average monthly limit (AML) of 6.9 µg/L. A coefficient of variation of 0.6 (based on n<10) was used to determine each multiplier. Monitoring for lead at sampling points 002B/BX, 002C, 002D, and 003 is required monthly.

Table 2. QBEL Calculations for Lead.

| | Acute | Chronic ¹ |
|---|-------|----------------------|
| Saltwater Aquatic Life Criteria, µg/L | 210 | 8.1 |
| No Dilution Credit Authorized | 0 | 0 |
| Background Concentration, µg/L | 0 | 0 |
| WLA (Dissolved), µg/L | 210 | 8.1 |
| WLA (Total Recoverable) ² , µg/L | 221 | 8.5 |
| WLA Multiplier (99 th %) | 0.321 | 0.527 |
| LTA, µg/L | 70.9 | 4.48 |
| LTA _{MDL} Multiplier (99 th %) | -- | 3.11 |
| MDL, µg/L | -- | 14 |
| LTA _{AML} Multiplier (95 th %) ³ | -- | 1.55 |
| AML, µg/L | -- | 6.9 |

¹Derivation of permit limit based on Section 5.4.1 of EPA's TSD

²Conversion factor for dissolved to total recoverable found in Appendix A of the National Recommended Water Quality Criteria.

³LTA multiplier based on sampling frequency of four times per month per section 5.5.3 of EPA's TSD

Zinc. Based on the reasonable potential analysis, USEPA determined that the discharge has a reasonable potential to cause or contribute to an exceedance for zinc. Section 24.0206(g)(3) of the AS Water Quality Standards refers to USEPA's federal criteria for toxic pollutants in embayments, open coastal waters and ocean waters: "Except as may be allowed by the EQC within a Zone of Mixing (§24.0207), the concentration of toxic pollutants shall not exceed the more stringent of the aquatic life criteria for marine waters or the human health concentration criteria for consumption of organisms found in USEPA 2002 or the most recent version." Therefore, the proposed permit contains effluent limits for zinc at sampling points 002B/BX, 002C, and 002D based on the saltwater chronic and acute WQS for the protection of aquatic life from USEPA's National Recommended Water Quality Criteria (USEPA, 2002b). The QBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 95 µg/L and an average monthly limit (AML) of 47 µg/L. A coefficient of variation of 0.6 (based on n<10) was used to determine each multiplier. Monitoring for zinc at sampling points 002B/BX, 002C, and 002D is required monthly.

Table 3. QBEL Calculations for Zinc.

| | Acute | Chronic ¹ |
|--|-------|----------------------|
| Saltwater Aquatic Life Criteria, µg/L | 90 | 81 |
| No Dilution Credit Authorized | 0 | 0 |
| Background Concentration, µg/L | 0 | 0 |
| WLA (Dissolved), µg/L | 90 | 81 |
| WLA (Total Recoverable) ² , µg/L | 95.1 | 85.6 |
| WLA Multiplier (99 th %) | 0.321 | 0.527 |
| LTA, µg/L | 30.5 | 45.1 |
| LTA _{MDL} Multiplier (99 th %) | 3.11 | -- |

| | | |
|---|------|----|
| MDL, µg/L | 95 | -- |
| LTA _{AML} Multiplier (95 th %) ³ | 1.55 | -- |
| AML, µg/L | 47 | -- |

¹Derivation of permit limit based on Section 5.4.1 of EPA's TSD

²Conversion factor for dissolved to total recoverable found in Appendix A of the National Recommended Water Quality Criteria.

³LTA multiplier based on sampling frequency of four times per month per section 5.5.3 of EPA's TSD

Benzene. Section 24.0206(g)(3) of the AS Water Quality Standards refers to USEPA's federal criteria for toxic pollutants in embayments, open coastal waters and ocean waters: "Except as may be allowed by the EQC within a Zone of Mixing (§24.0207), the concentration of toxic pollutants shall not exceed the more stringent of the aquatic life criteria for marine waters or the human health concentration criteria for consumption of organisms found in USEPA 2002 or the most recent version." The existing permit required annual monitoring of benzene. The reasonable potential analysis showed no potential for the discharge to cause or contribute to an exceedance for benzene; however monthly monitoring of benzene at sampling points 002B/BX, 002C, 002D, and 003 is retained in the proposed permit as benzene is commonly present in refined oil products.

Ethylbenzene. Based on the reasonable potential analysis, USEPA determined that the discharge has a reasonable potential to cause or contribute to an exceedance for ethylbenzene. Section 24.0206(g)(3) of the AS Water Quality Standards refers to USEPA's federal criteria for toxic pollutants in embayments, open coastal waters and ocean waters: "Except as may be allowed by the EQC within a Zone of Mixing (§24.0207), the concentration of toxic pollutants shall not exceed the more stringent of the aquatic life criteria for marine waters or the human health concentration criteria for consumption of organisms found in USEPA 2002 or the most recent version." Therefore, the proposed permit contains effluent limits for ethylbenzene based on the water quality standards for the protection of human health for consumption of the organism only from USEPA's National Recommended Water Quality Criteria (USEPA, 2002b). The WQBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 4,221 µg/L and an average monthly limit (AML) of 2,100 µg/L. A coefficient of variation of 0.6 (based on n<10) was used to determine each multiplier. Monitoring for ethylbenzene at sampling points 002B/BX, 002C, 002D, and 003 is required monthly.

Table 4. WQBEL Calculations for Ethylbenzene.

| | Human Health ¹ |
|--|---------------------------|
| Human Health Criteria, µg/L | 2,100 |
| No Dilution Credit Authorized | 0 |
| Background Concentration, µg/L | 0 |
| WLA (Dissolved), µg/L | n/a |
| WLA (Total Recoverable), µg/L | 2,100 |
| WLA Multiplier (99 th %) | n/a |
| LTA, µg/L | 2,100 |
| LTA _{MDL} Multiplier (99 th %) | 2.01 |
| MDL, µg/L | 4,221 |
| LTA _{AML} Multiplier (95 th %) | n/a |
| AML, µg/L | 2,100 |

¹Derivation of permit limit based on Section 5.4.4 of EPA's TSD

Toluene. Section 24.0206(g)(3) of the AS Water Quality Standards refers to USEPA’s federal criteria for toxic pollutants in embayments, open coastal waters and ocean waters: “Except as may be allowed by the EQC within a Zone of Mixing (§24.0207), the concentration of toxic pollutants shall not exceed the more stringent of the aquatic life criteria for marine waters or the human health concentration criteria for consumption of organisms found in USEPA 2002 or the most recent version.” The existing permit required annual monitoring of toluene. The reasonable potential analysis showed no potential for the discharge to cause or contribute to an exceedance for toluene; however monthly monitoring of toluene at sampling points 002B/BX, 002C, 002D, and 003 is retained in the proposed permit as toluene is commonly present in refined oil products.

Xylene. Section 24.0206(g)(3) of the AS Water Quality Standards refers to USEPA’s federal criteria for toxic pollutants in embayments, open coastal waters and ocean waters: “Except as may be allowed by the EQC within a Zone of Mixing (§24.0207), the concentration of toxic pollutants shall not exceed the more stringent of the aquatic life criteria for marine waters or the human health concentration criteria for consumption of organisms found in USEPA 2002 or the most recent version.” The existing permit did not require monitoring for xylene; however, xylene is commonly present in refined oil products. Thus, monthly monitoring of xylene at sampling points 002B/BX, 002C, 002D, and 003 is included in the proposed permit.

Ammonia. The existing permit did not require monitoring for ammonia; however, ammonia is a common pollutant in tank bottom water draws. Thus, monthly monitoring of ammonia at sampling points 002C and 002D is included in the proposed permit. The permittee shall also sample for pH and temperature at the time of ammonia sampling.

Total Nitrogen as N. Based on the reasonable potential analysis, USEPA determined that the discharge has a reasonable potential to cause or contribute to an exceedance for total nitrogen. Section 24.0206(m) of the AS Water Quality Standards provides requirements specific to Pago Pago Harbor, including a not to exceed value of 200.0 µg/L for total nitrogen as N. The proposed permit contains effluent limits for total nitrogen at sampling points 002B/BX, 002C, and 002D based on this standard. The WQBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 328 µg/L and an average monthly limit (AML) of 163 µg/L. A coefficient of variation of 0.6 (based on n<10) was used to determine each multiplier. Monitoring for total nitrogen at sampling points 002B/BX, 002C, and 002D is required monthly.

Table 5. WQBEL Calculations for Total Nitrogen.

| | Pago Pago Harbor¹ |
|---|-------------------------------------|
| Water Quality Criteria, µg/L | Not to exceed 200.0 |
| No Dilution Credit Authorized | 0 |
| Background Concentration, µg/L | 0 |
| WLA, µg/L | 200.0 |
| WLA Multiplier (99 th %) | 0.527 |
| LTA, µg/L | 105.4 |
| LTA _{MDL} Multiplier (99 th %) | 3.11 |
| MDL, µg/L | 328 |
| LTA _{AML} Multiplier (95 th %) ³ | 1.55 |
| AML, µg/L | 163 |

¹Derivation of permit limit based on single, steady-state model of Section 5.4.1 of EPA's TSD

Total Phosphorus as P. Based on the reasonable potential analysis, USEPA determined that the discharge has a reasonable potential to cause or contribute to an exceedance for total phosphorus. Section 24.0206(m) of the AS Water Quality Standards provides requirements specific to Pago Pago Harbor, including a not to exceed value of 30.0 µg/L for total phosphorus as P. The proposed permit contains effluent limits for total phosphorus at sampling points 002B/BX, 002C and 002D based on this standard. The WQBEL calculations are shown in the following table, resulting in a maximum daily limit (MDL) of 49.1 µg/L and an average monthly limit (AML) of 24.5 µg/L. A coefficient of variation of 0.6 (based on n<10) was used to determine each multiplier. Monitoring for total phosphorus at sampling points 002B/BX, 002C, and 002D is required monthly.

Table 6. WQBEL Calculations for Total Phosphorus.

| | Pago Pago Harbor ¹ |
|---|-------------------------------|
| Water Quality Criteria, µg/L | Not to exceed 30.0 |
| No Dilution Credit Authorized | 0 |
| Background Concentration, µg/L | 0 |
| WLA, µg/L | 30.0 |
| WLA Multiplier (99 th %) | 0.527 |
| LTA, µg/L | 15.8 |
| LTA _{MDL} Multiplier (99 th %) | 3.11 |
| MDL, µg/L | 49.1 |
| LTA _{AML} Multiplier (95 th %) ³ | 1.55 |
| AML, µg/L | 24.5 |

¹Derivation of permit limit based on single, steady-state model of Section 5.4.1 of EPA's TSD

BOD, COD, TSS, TDS, and Salinity. The existing permit did not require monitoring for biochemical oxygen demand, chemical oxygen demand, total suspended solids, or total dissolved solids; however, these are common pollutants in tank bottom water draws. Thus, monthly monitoring of these pollutants, at the time of tank bottom water draw discharge through sampling points 002C and 002D, is included in the proposed permit. Monthly salinity monitoring by refractometer is also included to assess the salt levels in the process wastewaters.

Table 7. Proposed Effluent Limitations for Outfalls 002 and 003

| Parameter | Units | Existing Permit Effluent Limits | | Proposed Permit Effluent Limits | |
|-------------------------------------|----------------|---------------------------------|-----------------|---------------------------------|-----------------|
| | | Average Monthly | Maximum Daily | Average Monthly | Maximum Daily |
| Outfalls 002 and 003 | | | | | |
| Flow | MGD | -- | Monitoring Only | -- | Monitoring Only |
| Oil & Grease | mg/L | -- | 15 | -- | 15 |
| pH | Standard Units | Not < 6.5 SU, Not > 8.6 SU | | Not < 6.5 SU, Not > 8.6 SU | |
| Turbidity | NTU | -- | Monitoring Only | -- | 0.75 |
| Lead | µg/L | -- | Monitoring Only | 6.9 | 14 |
| Benzene | µg/L | -- | Monitoring Only | Monitoring Only | |
| Ethylbenzene | µg/L | -- | Monitoring Only | 2,100 | 4,221 |
| Toluene | µg/L | -- | Monitoring Only | Monitoring Only | |
| Xylene | µg/L | -- | -- | Monitoring Only | |
| Volatile and Semi-volatile Organics | µg/L | -- | -- | Monitoring Only | |
| Remaining Priority Toxic Pollutants | µg/L | -- | -- | Monitoring Only | |
| Outfall 002 | | | | | |
| Zinc | µg/L | -- | -- | 47 | 95 |
| Ammonia | mg/L | -- | -- | Monitoring Only | |
| Total Nitrogen | µg/L as N | -- | -- | 163 | 328 |
| Total Phosphorus | µg/L as P | -- | -- | 24.5 | 49.1 |
| Biochemical Oxygen Demand (5-day) | mg/L | -- | -- | Monitoring Only | |
| Chemical Oxygen Demand | mg/L | -- | -- | Monitoring Only | |
| Total Suspended Solids | mg/L | -- | -- | Monitoring Only | |
| Total Dissolved Solids | mg/L | -- | -- | Monitoring Only | |
| Salinity | ppt | -- | -- | Monitoring Only | |
| Temperature | °C | -- | -- | Monitoring Only | |

Based on the above, Tables 7a, 7b and 7c summarize the monitoring requirements by sampling point:

Table 7a. Monitoring Requirements for Sampling Point 002B/BX¹

| Parameter | Units | Monitoring Frequency | Sample Type |
|--|----------------|----------------------|-----------------------|
| Flow | MGD | Weekly | Estimate ² |
| Oil & Grease | mg/L | Monthly | Grab |
| pH | Standard Units | Weekly | Grab ² |
| Turbidity | NTU | Weekly | Grab ² |
| Lead | µg/L | Monthly | Grab |
| Zinc | µg/L | Monthly | Grab |
| Benzene | µg/L | Monthly | Grab |
| Ethylbenzene | µg/L | Monthly | Grab |
| Toluene | µg/L | Monthly | Grab |
| Xylene | µg/L | Monthly | Grab |
| Total Nitrogen | µg/L as N | Monthly | Grab |
| Total Phosphorus | µg/L as P | Monthly | Grab |
| Volatile and Semi-volatile Organics ³ | µg/L | Quarterly | Grab |
| Remaining Priority Toxic Pollutants | µg/L | Annually | Grab |

¹Samples shall be taken when process wastewaters, such as tank bottom water draws or hose pressure hydro test waters, are released for discharge through the sampling point. In addition, samples shall be taken when storm water discharges through the sampling point.

²Flow, pH and turbidity shall be taken as field measurements at the time of sampling.

³Attachment B provides a list of volatile and semi-volatile organic compounds to be monitored.

Table 7b. Monitoring Requirements for Sampling Points 002C and 002D¹

| Parameter | Units | Monitoring Frequency | Sample Type |
|-----------------------------------|----------------|----------------------|-----------------------|
| Flow | MGD | Weekly | Estimate ² |
| Oil & Grease | mg/L | Monthly | Grab |
| pH | Standard Units | Weekly | Grab ² |
| Turbidity | NTU | Weekly | Grab ² |
| Lead | µg/L | Monthly | Grab |
| Zinc | µg/L | Monthly | Grab |
| Benzene | µg/L | Monthly | Grab |
| Ethylbenzene | µg/L | Monthly | Grab |
| Toluene | µg/L | Monthly | Grab |
| Xylene | µg/L | Monthly | Grab |
| Ammonia | mg/L | Monthly | Grab |
| Total Nitrogen | µg/L as N | Monthly | Grab |
| Total Phosphorus | µg/L as P | Monthly | Grab |
| Biochemical Oxygen Demand (5-day) | mg/L | Monthly | Grab |

| | | | |
|--|------------------|----------------------|-----------------------|
| Chemical Oxygen Demand | mg/L | Monthly | Grab |
| Total Suspended Solids | mg/L | Monthly | Grab |
| Total Dissolved Solids | mg/L | Monthly | Grab |
| Salinity | ppt ³ | Monthly | Discrete ² |
| Temperature | °C | Monthly ⁴ | Discrete |
| Volatile and Semi-volatile Organics ⁵ | µg/L | Quarterly | Grab |
| Remaining Priority Toxic Pollutants | µg/L | Annually | Grab |

¹Samples shall be taken when process wastewaters, such as tank bottom water draws or hose pressure hydro test waters, are released for discharge through the sampling point. In addition, samples shall be taken when storm water discharges through the sampling point.

²Flow, pH, turbidity, and salinity shall be taken as field measurements at the time of sampling. Salinity shall be measured by refractometer.

³“ppt” is parts per thousand.

⁴Temperature and pH shall be measured at the time of ammonia sampling.

⁵Attachment B provides a list of volatile and semi-volatile organic compounds to be monitored.

Table 7c. Monitoring Requirements for Sampling Point 003¹

| Parameter | Units | Monitoring Frequency | Sample Type |
|--|----------------|----------------------|-----------------------|
| Flow | MGD | Weekly | Estimate ² |
| Oil & Grease | mg/L | Monthly | Grab |
| pH | Standard Units | Weekly | Grab ² |
| Turbidity | NTU | Weekly | Grab ² |
| Lead | µg/L | Monthly | Grab |
| Benzene | µg/L | Monthly | Grab |
| Ethylbenzene | µg/L | Monthly | Grab |
| Toluene | µg/L | Monthly | Grab |
| Xylene | µg/L | Monthly | Grab |
| Volatile and Semi-volatile Organics ³ | µg/L | Quarterly | Grab |
| Remaining Priority Toxic Pollutants | µg/L | Annually | Grab |

¹Samples shall be taken when process wastewaters, such as tank bottom water draws or hose pressure hydro test waters, are released for discharge through the sampling point. In addition, samples shall be taken when storm water discharges through the sampling point.

²Flow, pH and turbidity shall be taken as field measurements at the time of sampling.

³Attachment B provides a list of volatile and semi-volatile organic compounds to be monitored.

Note on Monitoring Frequency: For those pollutants common to the industry, but for which there is very little or no monitoring data to assess the reasonable potential to exceed water quality standards, frequent monitoring is required to collect the necessary data for the analysis. Once sufficient data is collected, the monitoring frequency may be reduced. The proposed permit

includes provisions to reduce monitoring frequency for specific pollutants upon approval by EPA.

Weekly **visual monitoring of outfalls 002 and 003** is included in the proposed permit for compliance with the narrative water quality standards.

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

E. Antidegradation Policy

USEPA's antidegradation policy at 40 CFR 131.12 and Section 24.0202 of the AS 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 proposed permit establishes effluent limits and monitoring requirements to ensure that all applicable water quality standards are met. The proposed 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.

VII. NARRATIVE WATER QUALITY-BASED EFFLUENT LIMITS

Section 24.0206 of the American Samoa Water Quality Standards (2005) contains narrative water quality standards applicable to the receiving water. Therefore, the proposed permit incorporates the following applicable narrative water quality standards.

- A.** All territorial and ground waters shall be substantially free from:
 - 1. Materials attributable to sewage, industrial wastes, or other activities of man that will produce objectionable color, odor, or taste either of itself or in combinations, or in the biota;
 - 2. Visible floating materials, grease, oil, scum, foam, and other floating material attributable to sewage, industrial wastes, or other activities of man;
 - 3. Materials attributable to sewage, industrial wastes, or other activities of man that will produce visible turbidity or settle to form objectionable deposits;
 - 4. Substances and conditions or combinations thereof attributable to sewage, industrial wastes, or other activities of man which may be toxic to humans, other animals, plants, and aquatic life or produce undesirable aquatic life.
- B.** The temperature shall not deviate more than 1.5 degrees Fahrenheit from conditions which would occur naturally and shall not fluctuate more than 1 degree Fahrenheit on an hourly basis or exceed 85 degree Fahrenheit due to the influence of other than natural causes.
- C.** The concentration of toxic pollutants shall not exceed the more stringent of the aquatic life criteria for marine waters or the human health concentration criteria for consumption of organisms found in USEPA 2002 or the most recent version.

- D. The dissolved oxygen concentration of the receiving water shall not be at less than 70% saturation or less than 5.0 mg/L. If the natural level of dissolved oxygen is less than 5.0 mg/L, the natural level shall become the standard.
- E. The pH of the receiving water shall not be less than 6.5 or greater than 8.6 pH units. The discharge shall not cause the receiving water pH to change more than 0.2 pH units of that which would occur naturally.
- F. The light penetration depth of the receiving water shall not be less than 65.0 feet (not to exceed given value 50 percent of the time).

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 is insufficient to determine reasonable potential, monitoring may be required for pollutants or parameters where effluent limits have not been established.

A. Sampling

Samples and measurements taken as required in the proposed permit shall be representative of the volume and nature of the monitored discharge. Samples shall be taken at times when process wastewaters, such as tank bottom water draws and hose pressure hydro test waters, are released through the sampling points, and also at times when storm water discharges through the sampling points.

B. Effluent Monitoring and Reporting

The permittee shall conduct effluent monitoring as specified in the proposed permit to evaluate compliance with the proposed 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 proposed permit. All monitoring data shall be reported on monthly DMR forms and submitted quarterly as specified in the proposed permit.

C. Priority Toxic Pollutants

The permittee shall conduct **quarterly** monitoring for the volatile and semi-volatile organic compounds listed in Attachment B using EPA methods 624 and 625. The permittee shall also conduct **annual** monitoring for the remaining priority toxics pollutants. This monitoring will ensure that the discharge does not contain toxic pollutants in concentrations that may cause a violation of water quality standards. Samples shall be taken at sampling points 002C and 002D when process wastewaters, such as tank bottom water draws or hose pressure hydro test waters, are released for discharge through the sampling point. Samples shall also be taken at sampling points 002B/BX and 003. 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 proposed permit or by USEPA. 40 CFR 131.36 provides a complete list of Priority Toxic Pollutants.

IX. SPECIAL CONDITIONS

A. Pollution Prevention Plan

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

1. Hazardous Materials and Chemical Control

Section 24.0208(g) of the AS Water Quality Standards provides BMPs for the control of hazardous materials and chemicals. The following BMPs, applicable to the discharge, are included in the proposed permit as part of the Pollution Prevention Plan:

- a) Proper storage of hazardous materials. All hazardous materials and chemicals shall be stored within a covered shelter; an impervious berm with a capacity of 110% of the largest container in the shelter shall be placed around the perimeter of the storage area; and appropriate construction measures shall be taken to prevent the runoff of pollutants;
- b) Proper labeling of chemicals;
- c) Proper disposal of hazardous chemicals or materials in conformance with ASEPA guidelines and/or regulations promulgated by the EQC; and
- d) Proper maintenance of vehicles, equipment, and machinery in confined areas specially designed to control runoff.

2. Spill Prevention and Response Plan

The permittee must update and maintain their Spill Prevention Control and Countermeasure (SPCC) Plan in accordance with 40 CFR Part 112. This requirement is included as part of the Pollution Prevention Plan.

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 April 12, 2010, EPA sent a letter to the U.S. Fish and Wildlife’s (USFWS) Pacific Islands Office, requesting a list of threatened and endangered species in the vicinity of Pago Pago Harbor, American Samoa. On a letter dated April 30, 2010, USFWS responded to EPA, stating, “Threatened green turtles (*Chelonia mydas*) and endangered hawksbill turtles (*Eretmochelys imbricata*) have been sighted in Pago Pago Harbor; however, there are no known nesting turtles within the harbor area. The U.S. Fish and Wildlife Service consults

only on nesting sea turtles and their use of nesting habitats (terrestrial portion of the proposed project). The National Marine Fisheries Service (NMFS) consults on sea turtles and their use of off-shore and open ocean habitats. We recommend that you consult with NMFS regarding the potential impacts from the proposed project to sea turtles and their use of off-shore and open ocean habitats.”

On April 7, 2010, EPA requested from NMFS a list of endangered and threatened species for American Samoa. NMFS directed EPA to their website at http://www.fpir.noaa.gov/PRD/prd_esa_section_7.html , which contained the following list for American Samoa (E = endangered, T = threatened):

| Status | Species/Listing Name |
|--------|---|
| E | Blue Whale (<i>Balaenoptera musculus</i>) |
| E | Fin Whale (<i>Balaenoptera physalus</i>) |
| E | Humpback Whale (<i>Megaptera novaeangliae</i>) |
| E | Sei Whale (<i>Balaenoptera borealis</i>) |
| E | Sperm Whale (<i>Physeter macrocephalus</i>) |
| E | Sea turtle, hawksbill (<i>Eretmochelys imbricata</i>) |
| E | Sea turtle, leatherback (<i>Dermochelys coriacea</i>) |
| T | Sea turtle, green except where endangered (<i>Chelonia mydas</i>) |
| T | Sea turtle, loggerhead (<i>Caretta caretta</i>) |
| T | Sea turtle, Olive Ridley (<i>Lepidochelys olivacea</i>) |

Both sea turtles and whales are highly migratory species. Green turtles are only known to nest in American Samoa at Rose Atoll and a tagging study showed they migrate long distances, such as to Fiji. Hawksbill turtles have been sighted at Tutuila and the Manu’a Islands in American Samoa, but are only known to nest at Rose Atoll and Swain’s Island. One sighting of a leatherback sea turtle occurred near Swain’s Island, but the closest known nesting area is the Solomon Islands (Craig, 2002). According to USFWS’s letter, there are no known nesting sites in the vicinity of Pago Pago Harbor for green and hawksbill turtles and according to information on the NMFS Pacific Islands Office website, olive ridley turtles do not nest anywhere under U.S. jurisdiction in the Pacific Islands.

Humpback whales only occasionally enter Pago Pago Harbor, and only during their annual migration into the region from June to December, with peak abundances in September and October. Blue whales, fin whales and sei whales are known to occur in the Western Pacific Region, but have not been observed around American Samoa (Craig, 2002).

The facility discharges process wastewater daily from one of the tank farms and weekly from the other. These discharges flow through oil/water separators before discharging through Outfall 002 at the edge of Pago Pago Harbor. The facility has one other outfall (003) at the fuel dock, which discharges mostly storm water from another oil/water separator. Both outfalls drain directly into the harbor and at low tide, cascade onto rip rap for 2 to 5 feet before reaching the water.

The proposed permit includes additional water quality-based effluent limits for turbidity, lead, ethylbenzene, total nitrogen, total phosphorus, and zinc, increased monitoring frequency for various pollutants, and new monitoring for new pollutants known to be present

in tank bottom water draws. The proposed permit also requires monitoring be conducted at more representative sampling locations, the permittee update their pollution prevention plan, and the permittee develop and implement a quality assurance manual.

According to the previous permit's fact sheet, EPA consulted with the NMFS in 1997 and determined that compliance with the NPDES permit should not adversely affect any endangered species in Pago Pago Harbor.

Therefore, EPA has determined reissuance of the NPDES permit for the American Samoa Terminal will not affect blue, fin, humpback, sperm or sei whales, or hawksbill, leatherback, green, loggerhead, or olive ridley sea turtles, or critical habitat. EPA will provide the National Marine Fisheries Service with copies of the draft fact sheet and the draft permit during the public notice period.

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 or territory Coastal Management Plan (CZMA Sections 307(c)(1) through (3)). Section 307(c) of the CZMA and implementing regulations at 40 CFR 930 prohibit USEPA 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 Territory Coastal Zone Management program, and the Territory or its designated agency concurs with the certification.

The American Samoa Department of Commerce administers American Samoa's Coastal Management Program. EPA will provide the American Samoa Department of Commerce with copies of the draft fact sheet and the draft permit during the public notice period.

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, 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 proposed permit contains technology-based effluent limits and numerical and narrative water quality-based effluent limits as necessary for the protection of applicable aquatic life uses. Therefore, USEPA has determined that the proposed permit will not adversely affect essential fish habitat.

EPA will provide the National Marine Fisheries Service with copies of the draft fact sheet and the draft permit during the public notice period.

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), USEPA is making a determination that issuing this proposed NPDES permit does not have the potential to affect any historic properties or cultural properties. As a result, Section 106 does not require USEPA to undertake additional consulting on this permit issuance.

XI. STANDARD CONDITIONS

A. Reopener Provision

In accordance with 40 CFR 122 and 124, this permit may be modified by USEPA to include effluent limits, monitoring, or other conditions to implement new regulations, including USEPA-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 permit requires the permittee to comply with USEPA Region IX Standard Federal NPDES Permit Conditions, dated July 1, 2001.

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)

Notice of the draft permit will be placed in a daily or weekly newspaper within the area affected by the facility or activity, with a minimum of 30 days provided for interested parties to respond in writing to USEPA. After the closing of the public comment period, USEPA is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

C. Public Hearing (40 CFR 124.12(c))

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 USEPA 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.

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

As American Samoa has approved water quality standards, EPA is requesting certification from ASEPA 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.

XIII. CONTACT INFORMATION

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

U.S. Environmental Protection Agency, Region IX
NPDES Permits Office (WTR-5)
75 Hawthorne Street

San Francisco, California 94105
ATTN: Elizabeth Sablad
sablاد.elizabeth@epa.gov

XIV. REFERENCES

- American Samoa Environmental Quality Commission (ASEQC). 2005. Water Quality Standards, 2005 Revision. Administrative Rule No. 006-2005. American Samoa Code Annotated, Title 24.
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Attachment A
Terminal Figures from USEPA Inspection Report
March 31, 2008

Figure 1.2.1
American Samoa Terminal, Utulei Petroleum Terminal - Layout

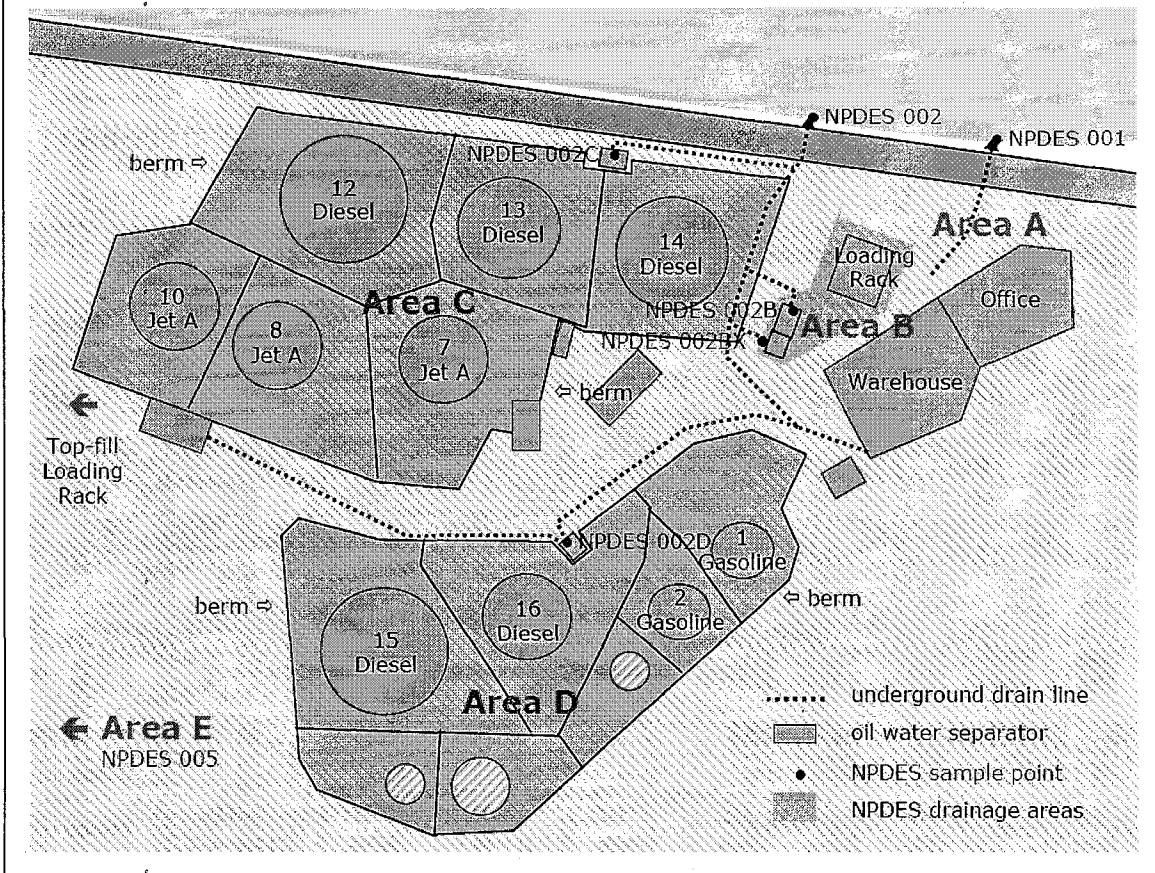
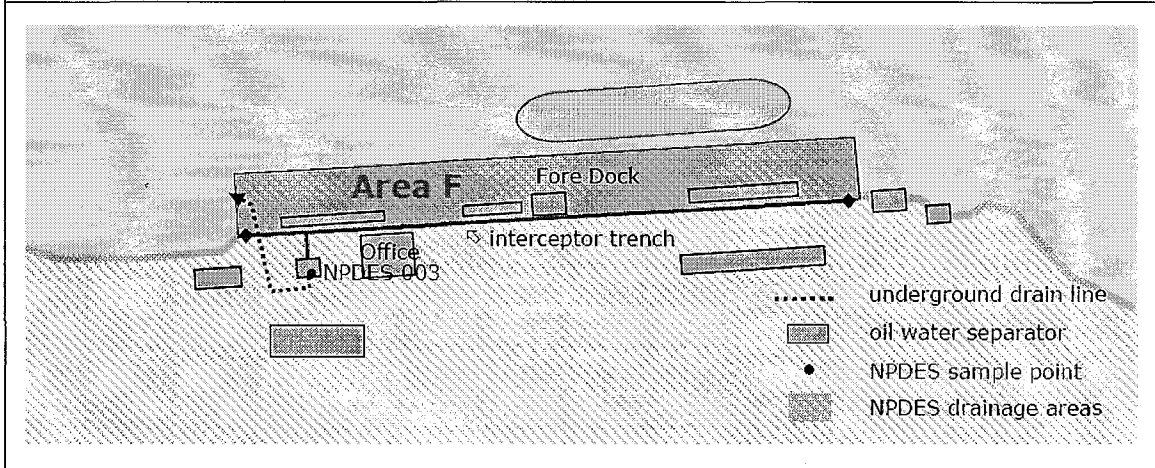


Figure 1.2.2
American Samoa Terminal, Fuel Dock - Layout



Attachment B
List of Volatile and Semi-volatile Organic Compounds
For analysis by EPA Methods 624 & 625

Method 624

Benzene
Bromodichloromethane
Bromoform
Bromomethane
Carbon tetrachloride
Chlorobenzene
Chloroethane
2-Chloroethylvinyl ether
Chloroform
Chloromethane
Dibromochloromethane
1,2-Dichlorobenzene
1,3-Dichlorobenzene
1,4-Dichlorobenzene
1,1-Dichloroethane
1,2-Dichloroethane
1,1-Dichloroethane
trans-1,2-Dichloroethene
1,2-Dichloropropane
cis-1,3-Dichloropropene
trans-1,3-Dichloropropene
Ethyl benzene
Methylene chloride
1,1,2,2-Tetrachloroethane
Tetrachloroethene
Toluene
1,1,1-Trichloroethene
1,1,2-Trichloroethene
Trichloroethane
Trichlorofluoromethane
Vinyl chloride

Method 625

Base/Neutral Extractables
2,6-Dinitrotoluene
Di-n-octylphthalate
Endosulfan sulfate
Endrin aldehyde
Fluoranthene
Fluorene
Heptachlor

Heptchlor epoxide
Hexachlorobenzene
Hexachlorobutadiene
Hexachloroethane
Indeno(1,2,3-cd)pyrene
Isophorone
Naphthalene
Nitrobenzene
N-Nitrosodi-n-propylamine
PCB-1016
PCB-1221
PCB-1232
PCB-1242
PCB-1248
PCB-1254
PCB-1260
Phenanthrene
Pyrene
Toxaphene
1,2,4-Trichlorobenzene

Acid Extractables

4-Chloro-3-methylphenol
2-Chlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2-Methyl-4,6-dinitrophenol
2-Nitrophenol
4-Nitrophenol
Pentachlorophenol
Phenol
2,4,6-Trichlorophenol

Additional Extractable Parameters.

Benzidine
 β -BHC
 δ -BHC
Endosulfan I
Endosulfan II
Endrin
Hexachlorocyclopentadiene
N-Nitrosodimethylamine
N-Nitrosodiphenylamine