

U.S. Environmental Protection Agency, Region IX
Response to Comments
on the
Draft 2019 NPDES Permit (AS0020028) for the American Samoa Terminal

Nicholas F. King, Jr., Terminal Manager of Pacific Energy SWP Limited (“Pacific Energy”), provided comments on EPA’s draft NPDES permit in a letter emailed on July 5, 2019. The following are EPA’s responses to Pacific Energy.

Comment #1 (A): Characterization of Flows: Process Wastewater; Commingled Stormwater (“Process Wastewater”); Stormwater (rainfall)

(A) Based on discussions with US EPA at the Region 9 office on 24 May 2019, and interpretation of the Draft Permit and Draft Fact Sheet, Pacific Energy understands that US EPA defines “process wastewater” as:

- (i) water discharged from the tank bottom draws because this water has had direct contact with fuel;
- (ii) water discharged from the fuel hose hydro-testing because this water had direct contact with surfaces that were previously in contact with fuel;
- (iii) stormwater (rainfall) commingled with process wastewater (i & ii above), the resultant commingled fluid being defined as “process wastewater”.

Based on our understanding of the US EPA definitions we have determined that process wastewater (i & ii above) at the Main Terminal and Fuel Dock facilities in American Samoa can only be commingled with stormwater to produce the commingled fluid “process wastewater (iii above), if the tank bottom draw water and hose hydro-test water are discharged to the paved surfaced of the defined curbed and bermed catchment areas of the Main Terminal and Fuel Dock facilities. If there is no discharge of process wastewater (i & ii above) to the paved surfaces then Pacific Energy understands that there is no generation of the commingled fluid consisting of stormwater (rainfall) and process wastewater that is defined by US EPA as “process wastewater” (iii above.)

Response to Comment #1 (A): Comment noted.

Comment 1 (B):

Before commingling with stormwater (rainfall), process wastewater from the tank bottom draws and hose hydro-testing constitutes a very small volume at the Pacific Energy facilities in American Samoa. The total volume of process wastewater before commingling with stormwater (rainfall) is less than 1100 gallons per year, and on average less than 3 gallons per day, as shown in calculations below.

For tank bottom draws, the volume of process wastewater before commingling with stormwater (rainfall) at the Main Terminal is approximately 420 gallons per year. Tank bottom draws occur only at the Main Terminal Area C and Area D (Sampling Point ID 002C & 002D, Outfall 002).

For hose hydro-testing, the volume of process wastewater before commingling with stormwater (rainfall) at the Fuel Dock is 622 gallons per year. Hose hydro-testing occurs only at the Fuel Dock (Sampling Point ID 003, Outfall 003).

Pacific Energy notes here that process wastewater (A(i) & A(ii) above) that is generated before commingling with stormwater (rainfall) is presently only generated in Area C, Area D and Area F of the Pacific Energy facilities in American Samoa.

[Pacific Energy provided respective methodologies for calculating annual and monthly average volumes of water discharged from tank bottom draws for Tanks 1, 2, 7, 8, 10, 12, 13, 14, 15, and 16, and annual volumes of water discharged from hydro-testing of 1½-inch, 2-inch, 4-inch, 6-inch and 8-inch hoses.]

Response to Comment #1 (B): Comment noted.

Comment #1 (C):

Catchment areas for the Main Terminal that receive stormwater (rainfall) are Area A1, Area A2, Area B (minimal, see below), Area C, Area D and Area E. Catchment areas for the Fuel Dock that receive rainfall are Area A3 and Area F.

Areas A1, A2, A3 and Area E are considered non-operational areas and do not generate process wastewater, and do not generate the commingled fluid of stormwater (rainfall) plus process wastewater that US EPA defines as “process wastewater”, and therefore there are no monitoring and reporting requirements for these areas.

Main Terminal Area B does not generate process wastewater (A(i) & A(ii) above) and is provided with near-total overhead cover that prevents rainfall from reaching all but a minimal portion of Area B that has no operational activity associated with it. Area B potential to generate the commingled fluid of stormwater (rainfall) plus process wastewater that US EPA defines as process wastewater is discussed in 2. below.

Rainfall is measured and recorded on a regular basis (target is daily) at the Main Terminal facility. The Main Terminal rain gauge is used to calculate the discharge of stormwater from the Main Terminal and the Fuel Dock because the Fuel Dock is in close proximity (less than 2000 feet) and rainfall events can reasonably be assumed to be essentially uniform over this short distance.

For DMR reporting purposes, rainfall data is used to calculate the average daily discharge for each catchment area, for each month, where sampling and analyses are presently required (Areas B, C, D & F).

Areas C and D accumulate rainfall at approximately the same volume for each rainfall event because of similar catchment area size (60,171 ft² and 62,687 ft², respectively). Average daily stormwater discharge from Areas C and D (for each area, each month) are similar and range from approximately <1000 gallons to 25,000 gallons.

Area F accumulates significantly less rainfall than Area C or D for each rainfall event due to less surface area (19,619 ft²). Average daily stormwater discharge from Area F (for each month) ranges from approximately <1000 gallons to 10,000 gallons.

Response to Comment #1 (C): Comment noted.

Comment #2: Monitoring Requirements for Area B (Sampling Point ID 002B & 002BX)

Area B does not receive significant rainfall on the catchment area. Area B is provided with near-total overhead cover. Overhead cover is provided for the convenience of loading

tanker trucks in a rain-free environment, and to keep rainfall from carrying contaminated water to the receiving water in the event of an accidental spill event.

Area B does not generate process wastewater (A(i) & A(ii) above), because there is no planned, intentional, or regular operations that results in the regular discharge of fuel, or discharge of water that has been contact with fuel, or discharge of water that has been in contact with surfaces previously in contact with fuel. Thus, there is no regular discharge of the commingled fluid of stormwater (rainfall) plus process wastewater that US EPA defines as “process wastewater” from Area B.

The Area B oil-water separator and sump are installed for the purpose of mitigating the impact of an accidental spill event on receiving waters.

Vehicle wash-down does not occur in Area B. Tanker trucks that utilize Area B for loading are commercial vehicles operated by various private-sector businesses that purchase fuel from Pacific Energy and deliver it to their customers. Pacific Energy does not allow wash-down of commercial vehicles in Area B. Pacific Energy does not wash-down Pacific Energy vehicles in Area B.

Vehicle maintenance does not occur in Area B. Tanker trucks that utilize Area B for loading are commercial vehicles operated by various private-sector businesses that purchase fuel from Pacific Energy and deliver it to their customers. Pacific Energy does not allow maintenance of commercial vehicles in Area B. Pacific Energy does not maintain Pacific Energy vehicles in Area B.

Based on the near-total overhead cover and intended purpose and use of Area B at the Main Terminal facility, Pacific Energy considers that the sampling, analyses, and reporting requirements for Area B, as shown in Table 3 of the Draft Permit and Table 8a of the Draft Fact Sheet, are excessive and do not serve a justifiable purpose for monitoring and reporting for regular discharges of process water or commingled stormwater.

As written with regard to Area B, Pacific Energy interprets the Draft Permit and Draft Fact Sheet to impose monitoring requirements for Area B as an on-going check for unintentional and unpredictable accidental spills, and not as a monitoring requirement for regular discharge of the commingled fluid defined by US EPA as “process wastewater”. As we interpret it, Pacific Energy disagrees with the imposition of monitoring requirements for Area B.

Pacific Energy requests that US EPA provide a detailed explanation of the reasoning and rationale for the sampling, analyses, and reporting requirements imposed for Area B, to include US EPA’s interpretation of how the operation of Area B results in a regular discharge to the receiving waters.

Pacific Energy requests that US EPA engage in a technical discussion concerning Area B, with the goal to reach a mutual understanding and mutually agreeable resolution, prior to issue of the final NPDES Permit AS0020028.

Response to Comment #2: EPA understands that washdown may not be truck-related and has removed the word ‘truck’ from truck washdowns from the description of Outfall 002 (on page 4) in the Fact Sheet to minimize confusion. Therefore, the revised

statement is: “Area B drains the loading rack which may contain washdowns and spills associated with loading fuel into delivery trucks, and commingled stormwater runoff.”

The discharge from Area B loading rack is a permitted discharge and must be sampled in accordance with the conditions in the permit. Numerous inspections¹ have been conducted by EPA over the years that demonstrate and confirm that Area B does generate process wastewater.

Based on reports from EPA’s inspections during March 2008, April 2009, and September 2010 that were subsequently sent to Pacific Energy, the inspector noted Area B drainage as follows: “Spills, wash down, and drainage from the bottom fill loading rack collect into a blind sump tank through floor drains. The sump contents are pumped into a pre-filler surge tank. Storm water run-off from the surrounding paved areas also drain into the surge tank, which is operated to release through an oil water separator. There is normally closed valving into and out of the oil water separator and out through a bypass line. The Area B oil/water separator discharges to the facility storm water culvert leading to the harbor, which is designated in the permit as NPDES-002. The Area B oil/water separator effluent is designated in the permit as NPDES-002B and the bypass line is designated as NPDES-002BX.”

In another inspection conducted by EPA in July 2017, the inspector was informed by plant personnel regarding Area B that the underground storage tank feeds into the 002BX bypass sump. Furthermore, Pacific Energy’s 2015 “Spill Prevention Control and Countermeasures Plan” ([SPCC plan](#))² submitted to EPA in March 2016 indicates that the underground tank is connected to the oil/water separator and can be used in the event of a spill for containment. Below are excerpts from the 2015 SPCC plan.

1. Pages 11-12:

“Tank Truck Bottom Loading Rack - There is one bottom load rack (BLR) for tank truck loading at the terminal. These are serviced by pumps at a rate of 600 gallons per minute. There are four emergency shutoff switches - one at the end of each truck loading rack lane and one in the office. In the event of an emergency in which the driver cannot respond, the emergency shutoff switch can be activated from the office in less than a minute. Consequently, an emergency is expected to result in a maximum release of 600 gallons at the tank truck loading rack. The curbing around the bottom load rack #1 can contain an estimated 500 gallons, the underground sump tank can hold 6,000 gallons and the adjacent oil water separator can contain an estimated 1500 gallons. The largest tank on any truck contains 5800 gallons.”

¹ USEPA. 2008 March 31 inspection; report prepared by CWA Compliance Office on March 9, 2009.
USEPA. 2009 April 30 inspection; report prepared by CWA Compliance Office on August 21, 2009.
USEPA. 2010 September 27 inspection; report prepared by CWA Compliance Office on February 25, 2011.
USEPA. 2017 July 28 inspection; report prepared by Water Enforcement Section on December 5, 2017.
USEPA. 2018 May 3 inspection; report prepared by Water Enforcement Section on July 6, 2018.

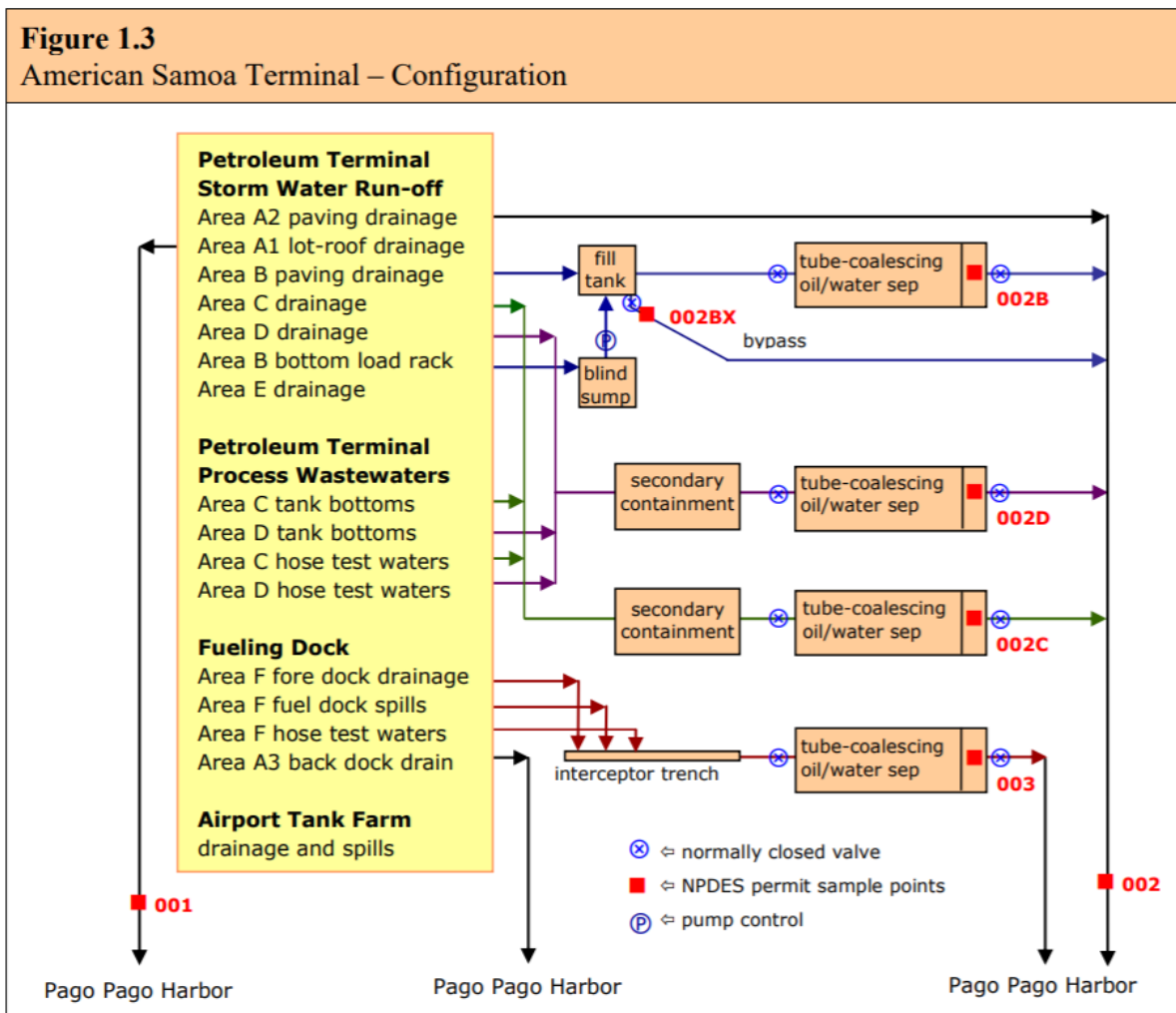
² “Spill Prevention Control and Countermeasures Plan for Utulei Petroleum Storage Terminal”, revised January 1, 2015.

2. Page 14:

“Current Status of Areas without Dikes - The flows from the paved areas without containment, including the drum storage area, and bottom load rack flow to the 6,000-gallon sump tank. When the sump tank is full it is pumped and drains through the oil water separator #1 to Outfall 001. Overflows from this sump enter the concrete oily water separator #1 and is discharged through outfall 001 as well. Outfall 001 treat waters from the terminal yard and bottom load rack. Outfall 004 is at the fuel dock and treats flow from the dock itself.”

EPA notes that the SPCC plan contains an error mislabeling Outfall 002 as Outfall 001. Outfall 001 drains Area A stormwater runoff from a paved parking lot and other non-operational paved areas and is not regulated by this permit.

It is EPA’s understanding that spills routinely occur during tanker truck loading, they are not unpredictable. To facilitate understanding of Area B drainage, the 2008, 2009 and 2010 inspection reports included a schematic of the generation and handling of facility wastewaters that has remained substantially unchanged, labeled as Figure 1.3 below.



Comment #3 (A): Parameters

Pacific Energy notes that the parameters Flow, Oil & Grease, pH, Turbidity, Lead, Zinc, Benzene, Ethylbenzene, Toluene, Xylene, Volatile and Semi-volatile Organics, and Remaining Priority Toxic Pollutants, are consistently applied for Sampling Point ID 002B, 002BX, 002C, 002D, and 003, as presented in the Draft Permit (Tables 3, 4 & 5) and Draft Fact Sheet (Tables 8a, 8b & 8c).

Pacific Energy acknowledges that the contaminants Oil & Grease, Lead, Zinc, Benzene, Ethylbenzene, Toluene, Xylene, Volatile and Semi-volatile Organics, and Remaining Priority Toxic Pollutants are potentially present in petroleum fuels and that the discharge of significant quantities of these contaminants to the receiving water could potentially impact water quality. Pacific Energy therefore agrees that monitoring for these contaminants is justified unless sufficient analytical data is generated that shows they are not present in the commingled stormwater discharge.

Pacific Energy acknowledges that the parameter Flow is fundamentally necessary to characterize discharges to the receiving water.

Pacific Energy acknowledges that pH and Turbidity may be present in the discharge within ranges that could potentially impact receiving water quality on a highly localized scale. Pacific Energy therefore agrees that monitoring for these parameters is justified unless sufficient analytical data is generated that shows the parameters are not of concern.

Response to Comment #3 (A): Comment noted.

Comment #3 (B): Not clear why Total Nitrogen and Total Phosphorus are included for Sampling Point ID 002B and 002BX

Pacific Energy notes that US EPA associates Ammonia, Total Nitrogen, Total Phosphorus, Biochemical Oxygen Demand (5-day), Chemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids and Salinity only with tank bottom draw water.

Pacific Energy notes that the parameters Ammonia, Total Nitrogen, Total Phosphorus, Biochemical Oxygen Demand (5-day), Chemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids, Salinity and Temperature, are not applied consistently for Sampling Point ID 002B, 002BX, 002C, 002D and 003. It is not clear why Total Nitrogen and Total Phosphorus are included for Sampling Point ID 002B and 002BX.

Response to Comment #3 (B): Pacific Energy did not perform the required monitoring for pollutants that are common to the industry over the 2010 permit term. Monthly sampling is necessary to obtain more information about the discharge. Due to the lack of discharge data over the past 5 years, EPA has been unable to evaluate Reasonable Potential (“RP”) to cause or contribute to water quality violations during this permit cycle. Therefore, the RP analysis provided in the 2010 permit fact sheet is being used for this permit cycle. And consistent with the anti-backsliding provision in Section 402(o) of the Clean Water Act, this permit includes all the same discharge limits and monitoring requirements set forth in the 2010 permit, including those for Total Nitrogen and Total Phosphorus at Sampling Points ID 002B and 002BX. The permit also includes reopener clauses to allow a reduction in monitoring frequency after two years of

monitoring and approval by EPA and a re-evaluation of the permit should new discharge data and/or information become available to warrant it.

Comment #3 (C): Pacific Energy requests to delay issuance of the final NPDES Permit

Pacific Energy notes that the parameters Ammonia, Total Nitrogen, Total Phosphorus, Biochemical Oxygen Demand (5-day), Chemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids, Salinity, and Temperature are not a concern for rainfall.

As indicated by US EPA during our meeting at the Region 9 office on 24 May 2019, there are no Effluent Limitation Guidelines (ELGs) for Petroleum Bulk Storage Terminal & Transfer (SIC 5171). At this meeting US EPA indicated that the parameters of Ammonia, Total Nitrogen, Total Phosphorus, Biochemical Oxygen Demand (5-day), Chemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids, and Salinity were determined to be associated with tank bottom draw water based on a US EPA internal program review (c. 2004). US EPA further indicated that the foregoing parameters are applied to the Pacific Energy facility based on Best Professional Judgment.

The 2018 rainfall records for the Main Terminal show that the total rainfall discharge from Sampling Point ID 002C and 002D was 10,680,000 gallons for calendar year 2018. The dilution of the total annual tank bottom draw (420 gallons) with the total annual rainfall is approximately 25,000:1 ($10,680,000 \div 420$).

Given the small annual volume of tank bottom draw water, the lack of empirical data on the presence of Ammonia, Total Nitrogen, Total Phosphorus, Biochemical Oxygen Demand (5-day), Chemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids, and Salinity in tank bottom draw water, and the high dilution of tank bottom draw water into accumulated rainfall, Pacific Energy disagrees with US EPA that there is sufficient justification at this time to warrant the excessive monitoring effort and associated costs that will be incurred if these parameters are included in the final NPDES Permit AS0020028.

Pacific Energy proposes to sample and analyze tank bottom draw water for Ammonia, Total Nitrogen, Total Phosphorus, Biochemical Oxygen Demand (5-day), Chemical Oxygen Demand, Total Suspended Solids, Total Dissolved Solids, and Salinity to determine the presence or concentration of these constituents.

Pacific Energy requests the US EPA delay issue the final NPDES Permit AS0020028 until tank draw water analyses are completed, and until Pacific Energy and US EPA engage in a technical assessment of analytical results.

Response to Comment #3 (D): EPA appreciates Pacific Energy's comment; however, EPA must move forward with the final permit issuance. The 2010 permit expired almost 4 years ago and this new permit is long overdue. The permittee did not perform the required monitoring over the previous permit term. Monthly sampling is necessary to obtain effluent characteristics, concentration levels and toxicity about the discharge. It is imperative that Pacific Energy performs all the effluent monitoring and reporting required by the permit. If and when sufficient data are collected to demonstrate no reasonable potential for the discharge of certain parameters to cause or contribute to exceedances of water quality standards, Pacific Energy can submit a request to EPA for

a permit modification to reduce the monitoring frequency. This is already clearly stated repeatedly in the draft permit and fact sheet, and specifically as follows:

Fact Sheet (Page 19):

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 USEPA.

Permit: (Page 11, Section D):

4. After two years from the effective date of this permit, if the permittee has performed all monitoring in accordance with the conditions of this permit and results indicate concentrations in the effluent do not demonstrate reasonable potential to exceed water quality standards, upon approval by USEPA, monitoring frequency for benzene, toluene, xylene, ammonia, biochemical oxygen demand, chemical oxygen demand, total suspended solids, and total dissolved solids may be reduced to quarterly.

5. After two years from the effective date of this permit, if the permittee has performed all monitoring in accordance with the conditions of this permit and results indicate concentrations in the effluent do not demonstrate reasonable potential to exceed water quality standards, upon approval by USEPA, monitoring frequency for volatile and semi-volatile organics may be reduced to semi-annual.