301(h)-Modified
NPDES Permit Reissuance
Questionnaire for Small Dischargers

UTULEI WASTEWATER TREATMENT PLANT

NPDES Permit No. AS0020001

Submitted By

AMERICAN SAMOA POWER AUTHORITY

May 1, 2006
Revised March 1, 2008

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Attachments

I. INTRODUCTION

The overall guidance for the questionnaire is provided in the Amended Section 301(h) Technical Support Document (EPA, 1994) and is stated as follows:

1. This questionnaire is to be submitted by both small and large applicants for modification of secondary treatment requirements under section 301(h) of the Clean Water Act (CWA). A small applicant is defined as a POTW that has a contributing population to its wastewater treatment facility of less than 50,000 and a projected average dry weather flow of less than 5.0 million gallons per day (mgd, 0.22 cubic meters/sec) [40 CFR 125.58(c)]. A large applicant is defined as a POTW that has a population contributing to its wastewater treatment facility of at least 50,000 or a projected average dry weather flow of its discharge of at least 5.0 million gallons per day(mgd, 0.22 cubic meters/sec) [40 CFR 125.58(c)]. The questionnaire is in two sections, a general information and basic requirements section (part II) and a technical evaluation section (part III). Satisfactory completion by small and large dischargers of the appropriate questions of this questionnaire is necessary to enable EPA to determine whether the applicant's modified discharge meets the criteria of section 301(h) and EPA regulations (40 CFR part 125, subpart G).

2. Most small applicants should be able to complete the questionnaire using available information. However, small POTWs with low initial dilution discharging into shallow waters or waters with poor dispersion and transport characteristics, discharging near distinctive and susceptible biological habitats, or discharging substantial quantities of toxics should anticipate the need to collect additional information and/or conduct additional analyses to demonstrate compliance with section 301(h) criteria. If there are questions in this regard, applicants should contact the appropriate EPA Regional Office for guidance.

3. Guidance for responding to this questionnaire is provided by the newly amended section 301(h) technical support document. Where available information is incomplete and the applicant needs to collect additional data during the period it is preparing the application or a letter of intent, EPA encourages the applicant to consult with EPA prior to data collection and submission. Such consultation, particularly if the applicant provides a project plan, will help ensure that the proper data are gathered in the most efficient matter.

Questions applicable only to large discharges are listed in strikeout font and are indicated as not applicable (N/A) in the following portions of this document.

II. GENERAL INFORMATION AND BASIC DATA REQUIREMENTS

II.A. Treatment System Description

The Utulei Waste Water Treatment Plant (Utulei WWTP) is located adjacent to Pago Pago Harbor on Tutuila Island, the largest and principal island of American Samoa (Figure 1, Attachment A) The Utulei WWTP is a primary treatment plant which collects and treats wastewater from villages around the harbor and downtown area. The service area includes the villages of Faga'alu (including the hospital), Utulei, Fagatogo, Pago Pago (both upper and lower parts of the village), and Atu'u (including the sanitary wastewater from the canneries). The service area also includes the villages of Leloaloa, Au'a, and Onesosopo which are not yet connected but were included in the original design of the Harbor Sewer System and the Utulei WWTP.

II.A.1. Current, Improved or Altered Discharge [40 CFR 125.59(a)]

On which of the following are you basing your application: a current discharge, improved discharge, or altered discharge, as defined in 40 CFR 125.58?

The application is based on the current (existing) discharge from the American Samoa Power Authority (ASPA) Utulei wastewater treatment plant (WWTP); existing NPDES permit number is AS0020001. Data used for the application covers the years of 2003 through 2005.

II.A.2. Description of the Treatment/Outfall System [40 CFR 125.62(a) and 125.62(e)]

a. Provide detailed descriptions and diagrams of the treatment system and outfall configuration which you propose to satisfy the requirements of section 301(h) and 40 CFR Part 125, Subpart G. What is the total discharge design flow upon which this application is based?

The collection system consists of gravity sewer mains and force mains. Lift stations in Atu'u, Satala, Korea House, Malaloa, Utulei, and Faga'alu collect and pump raw sewage via the force mains into the Utulei Wastewater Treatment Plant. A diagram of the treatment system is provided as Figure 2, Attachment A. Sludge is treated by digestion and placed in drying beds. Treated wastewater is pumped through a 24-inch diameter HDPE pipe approximately 291 meters (954 feet) offshore and down to a depth of approximately 45.7 meters (150 feett) off Tulutulu Point in an open section of the outer Pago Pago Harbor. The pipe terminates at a linear high rate multi-port diffuser.

The average flow from the plant in CY-2005 was 1.47 million gallons per day (mgd). The total design flow from the existing NPDES permit is 2.2 mgd (annual avg.). An increase in annual average flow from 2.2 mgd to 3.0 mgd is requested to serve a projected increase in population. The 3.0 mgd flow is based on a preliminary estimate of increased service area population and can be achieved by planned improvements to Utulei STP, which include bringing clarigester No. 1 back into service and upgrading existing pumping and piping.

b. Provide a map showing the geographic location of the proposed outfall(s) (i.e., discharge). What is the latitude and longitude of the proposed outfall(s)?

See maps provided as Figures 3 and 4, Attachment A. The existing outfall, designated 001, is located at latitude S 14° 16.824' and longitude: W 170° 40.133'.

c. For a modification based on an improved or altered discharge, provide a description and diagram of your current treatment system and outfall configuration. Include the current outfall's latitude and longitude, if different from the proposed outfall.

Not Applicable (N/A): the Utulei WWTP is an existing facility with an existing outfall. No changes to the treatment system or outfall are proposed.

II.A.3. Primary or equivalent treatment requirements [40 CFR 125.60]

a. Provide data to demonstrate that your effluent meets at least primary or equivalent treatment requirements as defined in 40 CFR 125.58 (r). [40 CFR 125.60]

Tables with the sampling dates, minimum, maximum, and monthly averages are included in the Supporting Technical Analysis (Tables 1, 2, and 3; Attachment B).

The existing NPDES permit indicates that effluent pH shall be "not less than 6.5 nor greater than 8.6." For the period of review, 2003 through 2005, a total of 710 daily samples were collected with a minimum pH of 6.7 s.u. and a maximum of 7.8 s.u.

Currently primary effluent standards require the average monthly BOD not to exceed 78.3 mg/l, and the TSS not to exceed 75 mg/l. The tentative decision of the EPA Regional Administrator pursuant to 40 CFR 125, subpart G, also required the demonstration of 30% removal of biochemical oxygen demanding material (BOD) from the influent on an annual averaging basis as a condition of the requirement for primary treatment. The table below demonstrates that the effluent meets and surpasses primary or equivalent treatment.

Utulei WWTP Monthly Average Influent and Effluent Biological Oxygen Demand (BOD) and Total Suspended Solids (TSS) and Percent Removal - CY 2005

Month	Flow mgd	Influent BOD (mg/l)	Effluent BOD (mg/l)	BOD % Removed	Influent TSS (mg/l)	Effluent TSS (mg/l)	TSS % Removed
Jan	1.4	127.8	70.8	44.2	56.0	24.8	55.7
Feb	1.7	162.8	69.3	57.5	45.8	23.3	48.8
Mar	1.4	123.2	68.2	44.7	45.6	24.6	44.5
Apr	1.4	125.8	68.3	47.1	44.0	23.5	47.4
May	1.7	108.5	61.0	43.6	44.3	23.3	47.1
Jun	1.4	119.0	53.2	54.9	46.8	25.8	45.0
Jul	1.2	134.5	60.0	55.3	48.5	24.8	48.0
Aug	1.6	131.0	65.3	50.3	46.3	24.0	47.6
Sep	1.5	116.4	58.0	49.8	61.2	34.0	43.8
Oct	1.3	137.0	57.8	57.9	61.0	31.0	48.5
Nov	1.7	140.8	55.3	60.7	52.0	29.3	43.5
Dec	1.6	121.6	53.8	55.7	52.4	28.8	44.7
Avg. (Monthly)[1]	1.5	129.0	61.7	**51.8**	50.3	26.4	**47.1**

[1]Average based on monthly average values reported in DMRs

b. If your effluent does not meet primary or equivalent treatment requirements, when do you plan to meet them? Provide a detailed schedule, including design, construction, start-up and full operation, with your application. This requirement must be met by the effective data of the new section 301(h) modified permit.

N/A

II.A.4. Effluent Limitations and Characteristics [40 CFR 125.61(b) and 125.62(e)(2)]

a. Identify the final effluent limitations for five-day biochemical oxygen demand (BOD5), suspended solids, and pH upon which your application for a modification is based:

Requested Effluent Limitations for Utulei WWTP							
Parameter	**Flow (mgd)**	**Concentration (mg/l)**			**Mass Emissions (lbs/d)**		
		Monthly	**Weekly**	**Daily**	**Monthly**	**Weekly**	**Daily**
BOD (5 day)	***3.0***	78.3	117	157	1973	2948	3956
TSS	***3.0***	75	113	150	1890	2848	3780
Settleable Solids	***3.0***	1 ml/L	N/A	2 ml/L	N/A		
pH	***3.0***	Not less than 6.5 nor greater than 8.6					

b. Provide data on the following effluent characteristics for your current discharge as well as for the modified discharge if different from the current discharge:

For the data categories below there is no average dry weather and average wet weather values provided because in American Samoa the climate is classified as the humid tropics with wet months occurring on a year-round basis. Tables with the minimum, maximum and monthly averages are included in the Supporting Technical Analysis (Attachment B; Table 4 Table 1, and Table 2, for flow, BOD5, and TSS, respectively). Data for effluent temperature is provided in Table 5, Attachment B. Data for Effluent settleable solids is provided in Table 6, Attachment B.

Flow (m3/sec):

Parameter: Flow	Value (m3/sec)
minimum (2003 through 2005)	0.00
average wet/dry weather	N/A
average (2003 through 2005)	0.052 (1.19 mgd)
maximum (2003 through 2005)	0.150 (3.42 mgd)
average annual 2005	0.065 (1.47 mgd)

BOD5 (mg/L) for the following plant flows:

Parameter: BOD5:	Value (mg/l)
minimum (2003 through 2005)	6
average wet/dry weather	N/A
average (2003 through 2005)	54.8
maximum (2003 through 2005)	94
average annual 2005	61.5

Suspended solids (mg/L) for the following plant flows:

Parameter: TSS	Value (mg/l)
minimum (2003 through 2005)	7
average wet/dry weather	N/A
average (2003 through 2005)	29.5
maximum (2003 through 2005)	74
average annual 2005	26.6

Toxic pollutants and pesticides (ug/L):

A detailed list of pollutants and pesticides is provided in the Supporting Technical Analysis: Attachment B, Tables 7 through 14. The tables below provide a summary of the parameters that were detected during two priority pollutant scans conducted in 2004 and 2005.

Utulei WWTP Priority Pollutant Scan Results Summary
from the September 2004 and March 2005 Sampling Events

(***Data shown for constituents with concentrations above the method detection limit and for which 304(a)(1) Toxicant Pollutants criteria exist).***

Category	Date	Constituent	Concentration (µg/l)		Criteria		
					Saltwater: Aquatic Life		HCC
					CMC	CCC	
Metals	Sep-04	Copper	6.1	B	4.8	3.1	
	Sep-04	Mercury	0.24		1.8	0.94	
	Mar-05	Mercury	0.0647		1.9	0.94	
	Sep-04	Zinc	27.7		90	81	
	Mar-05	Zinc	28.5		90	81	
Organic Compounds	Sep-04	alpha-BHC	0.011	J, P			0.0049
	Sep-04	delta-BHC	0.0052	J, P			
	Sep-04	Chlorobenzene	0.21	J			21000
	Sep-04	Chloroform	1.5	J			470
	Sep-04	4,4'-DDT	0.018		0.13	0.001	0.00022
	Mar-05	4,4'-DDT	0.019	J	0.13	0.001	0.00022
	Sep-04	Dichloromethane (Methylene Chloride)	0.42	J			590
	Sep-04	Toluene	0.51	J			200000
	Mar-05	Toluene	2.3	J			200000
	Sep-11	4-Nitrophenol	13	J			
	Sep-11	Phenol	12	J			1700000
	Mar-12	Phenol	32				1700000
	Sep-04	Bis(2-ethylhexyl) Phthalate	8.6	J			2.2
	Mar-05	Bis(2-ethylhexyl) Phthalate	12				2.2
	Sep-04	1,4-Dichlorobenzene	4.1	J			2600
	Sep-04	1,4-Dichlorobenzene	1.8	J			2600
	Mar-05	1,4-Dichlorobenzene	4.3				2600
	Mar-05	1,4-Dichlorobenzene	3	J			2600
	Sep-04	Diethyl Phthalate	3.5	J			44000
	Mar-05	Diethyl Phthalate	4.4	J			44000
	Mar-05	Fluorene	0.38	J			5300
	Mar-05	Phenanthrene	0.56	J	4.8	3.1	

CMC = Criteria Maximum Concentration (acute)
CCC = Criterion Continuous Concentration (chronic)
HCC = Human Health Criteria (for consumption of organisms only)
B =The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL
P = The GC or HPLC confirmation criteria was exceeded. The relative difference is greater than 40% between the two analytical results (25% for CLP pesticides)

Utulei WWTP Non-Priority Pollutant Scan Results Summary
from the September 2004 and March 2005 Sampling Events

(***Data shown for constituents with concentrations above the method detection limit and for which 304(a)(1) Non-Priority Toxicant Pollutants criteria exist).***

Category	Date	Constituent	Concentration (µg/l)		Criteria		
					Saltwater: Aquatic Life		HCC
					CMC	CCC	
Metals	Sep-04	Aluminum	356				
	Mar-05	Aluminum	320				
	Sep-04	Barium	24.4				
	Mar-05	Barium	15.3				
	Sep-04	Boron	554				
	Mar-05	Boron	276				
	Sep-04	Iron	191				
	Mar-05	Iron	275				
	Sep-04	Manganese	36.8				100
	Mar-05	Manganese	36.8				100

CMC = Criteria Maximum Concentration (acute)
CCC = Criterion Continuous Concentration (chronic)
HCC = Human Health Criteria (for consumption of organisms only)
B =The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL
J = The result is an estimated concentration that is less than the MRL but greater than or equal to the MDL
P = The GC or HPLC confirmation criteria was exceeded. The relative difference is greater than 40% between the two analytical results (25% for CLP pesticides)

pH:

Data for pH are provided in Table 3, Attachment B

- minimum (2003 through 2005): 6.7 S.U.
- maximum(2003 through 2005): 7.8 S.U.

Dissolved oxygen (mg/L, prior to chlorination) for the following plant flows:

N/A: No dissolved oxygen (DO) measurements are available for the Utulei WWTP effluent. DO data collection is not required under the existing 301(h)-modified NPDES permit. Effluent DO is assumed to 0.0 mg/l for analysis of effluent effects on receiving water DO.

Immediate dissolved oxygen demand (mg/L)

IDOD has not been measured. Based on travel time and BOD_5 concentration an IDOD of 5 mg/l is assumed following the method provided in the EPA 301(h) Technical Support Document (TSD)..

II.A.5. Effluent Volume and Mass Emissions [40 CFR 125.62(e)(2) and 125.67]

a. Provide detailed analyses showing projections of effluent volume (annual average, m3/sec) and mass loadings (mt/yr) of BOD5 and suspended solids for the design life of your treatment facility in five-year increments. If the application is based upon an improved or altered discharge, the projections must be provided with and without the proposed improvements or alterations.

The Table below provides the results of the analyses of projected effluent volume and mass loadings in five-year increments for Utulei WWTP without any improvements or alterations but based on anticipated increased flows, are as follows:

Utulei WWTP Effluent Volume and Loading Projections			
Year	*Effluent Average Annual Volume (m^3/s)*	*Mass Loading (Metric Tons/yr)*	
		BOD	*TSS*
2006	*0.066 (1.5 mgd)*	*162*	*155*
2011	*0.131 (3 mgd)*	*324*	*311*
2016	*0.131 (3 mgd)*	*324*	*311*
2021	*0.131 (3 mgd)*	*324*	*311*

b. Provide projections for the end of your five-year permit term for 1) the treatment facility contributing population and 2) the average daily total discharge flow for the maximum month of the dry weather season.

It is anticipated the population will expand from 8,000 to 13,000 users. The population is expanding and geographic areas designated for service in the original design plan are continuing to be brought online. Annual average flow is anticipated to expand from approximately 1.5 to 3.0 mgd. As noted above, considering the climate type, there is little or no difference in 'wet' and 'dry' season.

II.A.6. Average Daily Industrial Flow (m3/sec) [40 CFR 125.66].

Provide or estimate the average daily industrial inflow to your treatment facility for the same time increments as in question II.A.5 above. [40 CFR 125.66]

N/A. Only domestic sewage is allowed by regulation and enforcement into the Utulei collection system, and the Utulei WWTP. Domestic sewage, by definition, is also contributed by restaurants, laundromats, and the domestic sewage from businesses in the Utulei Industrial Park. The industrial flow for the Utulei WWTP has not changed since the Section 301(h)-modified NPDES permit for this facility was issued in 1985. Any industrial flow, by regulation, will require extensive pre-treatment at the source prior to entering into the Utulei collection system. There are currently no industrial wastewater flows in operation, and there do not appear to be any in the planning process, based on verbal communication with staff of the Department of Commerce, PNRS review (American Samoa land-use planning process).

II.A.7. Combined Sewer Overflows [40 CFR 125.67(b)]

a. Does (will) your treatment and collection system include combined sewer overflows?

No, combined sewer overflows do not exist in the Utulei WWTP collection system. Such overflows are prohibited by regulation, and inspections on all structures are made prior to providing permanent power and water. Only ASPA wastewater employees conducting official business are allowed to modify the collection system.

b. If yes, provide a description of your plan for minimizing combined sewer overflows to the receiving water.

N/A

II.A.8. Outfall/Diffuser Design.

Provide the following data for your current discharge as well as for the modified discharge, if different from the current discharge: [40 CFR 125.62(a)(1)]

A diagram of the diffuser installation is shown in Figure 5 (Attachment A), and a detail schematic drawing of the diffuser is shown in Figure 6 (Attachment A).

- ***Diameter and length of the outfall(s) (meters)***
  - Diameter:
    - OD=0.61-meter (24-inch) diameter HDPE pipe
    - ID= 0.53-meters (20.72 inch) diameter
  - Length:
    - Extends approximately 291 meters (954 feet) offshore
    - Transmission length to first diffuser port 411.5 meters (1350 feet)
- ***Diameter and length of the diffuser(s) (meters)***
  - Diameter:
    - OD=0.61-meter (24-inch) diameter HDPE pipe
    - ID= 0.53-meters (20.72-inch) diameter
  - Length:
    - The diffuser is made up of two section of pipe for a total length of 14.33 meters (47 feet).
    - The distance between the first and last ports is 10.67 meters (35 feet).
- ***Angle(s) of port orientation(s) from horizontal (degrees)***
  - Existing: The port angle is 0 degrees horizontal set on 0.91-meter (3-foot) high risers.
  - Two risers were broken off at last inspection.
  - Recommendation: risers be changed to short risers installed at 15 degrees up from horizontal. Ports/risers would alternate sides on the diffuser.
- ***Port diameter(s) (meters)***
  - Existing: The six (6) ports have ID diameters of 0.1956 meters (7.7 inches) with variable orifice plates, resulting in one port with each of following sizes in the offshore direction:
    - 0.09-meter (3.5-inch)
    - 0.10-meter (3.8-inch)
    - 0.11-meter (4.5-inch)
    - 0.13-meter (5.2-inch)
    - 0.15-meter (5.8-inch)
    - 0.16-meter (6.2-inch)
  - Risers 5, and 3 were broken off and riser 6 was cracked and leaking.
  - Recommendation: remove risers and port restriction orifices. Replace with short risers as described above and use port diameter rather than orifice plate diameters.
- ***Orifice contraction coefficient(s), if known***
  - The orifices are consistent with a sharp edged orifice.
- ***Vertical distance from mean lower low water (or mean low water) surface and outfall port(s) centerline (meters)***
  - 44.2 meters (145 feet) from surface
  - 1.53 meters (5 feet) off bottom
- ***Number of ports***
  - The diffuser has 6 ports
- ***Port spacing (meters)***

- Port spacing from centerline to centerline is 2.13 meters (7 feet)

- ***Design flow rate for each port, if multiple ports are used (m^3/sec)***
  - The table below provides the flow rate for each port under annual average flows (3 mgd) and instantaneous maximum flows (6 mgd). Data on the annual average flows of 1.5 mgd (2005 annual average) and 2.2 (Existing permit limitation) are provided in the Supporting Technical Analysis (Attachment D)

Utulei WWTP Outfall and Diffuser Port Flow Characteristics for 3 MGD and 6 MGD Scenarios

Configuration	Port	Port Description				Port Flow	
		Port Diameter		Port Depth			
		Meters	Inches	**Meters**	Feet	**M^3/S**	MGD
Average Annual Flow of 3 MGD (with Existing Port Orifice Reduction Plates)	1	0.1575	6.2	44.196	145	0.0210	0.74
	2	0.1473	5.8	44.196	145	0.0190	0.67
	3	0.1321	5.2	44.196	145	0.0159	0.56
	4	0.1143	4.5	44.196	145	0.0122	0.43
	5	0.0965	3.8	44.196	145	0.0091	0.32
	6	0.0889	3.5	44.196	145	0.0079	0.28
					Total Flow	0.0850	3.0

Configuration	Port	Port Description				Port Flow	
		Port Diameter		Port Depth			
		Meters	Inches	**Meters**	Feet	**M^3/S**	MGD
Maximum Instantaneous Flow of 6 MGD (with Existing Port Orifice Reduction Plates)	1	0.1575	6.2	44.196	145	0.0422	1.49
	2	0.1473	5.8	44.196	145	0.0379	1.34
	3	0.1321	5.2	44.196	145	0.0317	1.12
	4	0.1143	4.5	44.196	145	0.0246	0.87
	5	0.0965	3.8	44.196	145	0.0181	0.64
	6	0.0889	3.5	44.196	145	0.0156	0.55
					Total Flow	0.1702	6.01

Configuration	Port	Port Description				Port Flow	
		Port Diameter		Port Depth			
		Meters	Inches	**Meters**	Feet	**M^3/S**	MGD
Possible Scenario: Average Annual Flow of 3 MGD without Port Orifice Reduction Plates	1	0.1969	7.75	44.196	145	0.0147	0.52
	2	0.1969	7.75	44.196	145	0.0147	0.52
	3	0.1969	7.75	44.196	145	0.0144	0.51
	4	0.1969	7.75	44.196	145	0.0139	0.49
	5	0.1969	7.75	44.196	145	0.0136	0.48
	6	0.1969	7.75	44.196	145	0.0139	0.49
				Total Flow		0.0852	3.01

Configuration	Port	Port Description				Port Flow	
		Port Diameter		Port Depth			
		Meters	Inches	**Meters**	Feet	**M^3/S**	MGD
Possible Scenario: Maximum Instantaneous Flow of 6 MGD without Port Orifice Reduction Plates	1	0.1969	7.75	44.196	145	0.0295	1.04
	2	0.1969	7.75	44.196	145	0.0295	1.04
	3	0.1969	7.75	44.196	145	0.0289	1.02
	4	0.1969	7.75	44.196	145	0.0280	0.99
	5	0.1969	7.75	44.196	145	0.0269	0.95
	6	0.1969	7.75	44.196	145	0.0275	0.97
				Total Flow		0.1702	6.01

II.B. Receiving Water Description

II.B.1. Discharge to Ocean or Saline Estuary

Are you applying for a modification based on a discharge to the ocean [40 CFR 125.58(n)] or to a saline estuary [40 CFR 125.58(v)]? [40 CFR 125.59(a)]

The existing discharge is to the outer portion of Pago Pago Harbor which is typical of open coastal ocean and is not characteristic of an estuarine system. No changes in the existing location of the outfall are being proposed.

II.B.2. Discharge to Stressed Waters

Is your current discharge or modified discharge to stressed waters as defined in 40 CFR 125.58(z)? If yes, what are the pollution sources contributing to the stress? [40 CFR 125.59(b)(4) and 125.62(f)]

No, the open coastal waters of American Samoa are not considered as stressed waters. There are three noteworthy discharges in American Samoa. The Utulei WWTP and the Joint Cannery Outfall (JCO) both discharge to Outer Pago Pago Harbor. The third discharger, Tafuna, is also a WWTP and discharges directly into the Pacific Ocean. Neither Tafuna nor JCO discharges affects the receiving water for the Utulei WWTP discharge.

II.B.3. Seasonal Circulation Patterns

Provide a description and data on the seasonal circulation patterns in the vicinity of your current and modified discharge(s). [40 CFR 125.62(a)]

The tides in the vicinity of the discharge are semi-diurnal with a range of 2.5 feet and little diurnal inequality. There is little freshwater surface water entering Pago Pago Harbor and minimal freshwater coming from Tulutulu Point, the land feature closest to the outfall. There are two climatic seasons in American Samoa affecting the wind, the tradewind season and non-tradewind season. Winds are generally from the east and southeast and from this direction most of the time during the tradewind season, which is typically April/May through October/November. During November/December through March/April east to southeast winds still dominate but northwest to northeast wind directions become more prevalent.

There have been two substantial oceanographic studies conducted of Pago Pago Harbor (M&E, 1979; CH2M HILL, 1984). A brief summary of the two studies along with re-analysis of the oceanographic data was conducted to further define current variability and circulation and is contained in a Feasibility Study for the JCO (CH2M HILL, 1991).

The 1979 M&E study was conducted for the U.S. Army Corp of Engineers, Honolulu District, for purpose of establishing a “baseline” water quality survey. Field measurements of various parameters were made in February and July of 1979, with February defined as the “wet” season and July defined as the “dry” season. Current measurements were made using an Endeco 105 ducted propeller current meter at one station located seaward of the outer harbor during each sampling period. Currents were measured for durations of 21 days during Feb/March and 17 days during July 1979. A drogue study was conducted in the inner and outer harbor using up to four releases of drogues at one station in each location with drogues at 3 depths, surface, 10-f00t, and 100-f00t. Drogues were released to correspond with ebb tide, flood tide, and high wind conditions.

The M&E (1979) study defined Pago Pago Harbor as extending seaward to a line drawn from Breakers Point on the eastern shoreline to Fagaalu on the western shoreline. This study pro-vided rough calculations of the surface area of the inner Harbor (12.6 x 106 sq.feet.) and outer Harbor (41.4 x 106 sq.feet.). Using average depths for the inner Harbor (71.3 feet) and outer Harbor (100.8 feet), M&E calculated the volume of the inner and outer Harbor and then applying an aver-age tide calculated the tidal exchange and residence time of water in different sections of Pago Pago Harbor. These calculations were re-evaluated in the 1991 Feasibility Study (CH2M HILL, 1991), which should be referred to for an in-depth description of calculation of tidal exchange and residence time.

The CH2M HILL 1984 oceanographic study collected field data during July and August 1982. Current meters were placed at 5 stations in Pago Pago Harbor and 3 offshore locations. A single meter was deployed at Stations 1 and 2 in the inner harbor, and at three depths at all other locations. No data was recovered from the inner harbor stations and one bottom meter at an off-shore location. A drogue study was conducted deploying drogues at 15 and 60 ft depths at 5 stations inside Pago Pago Harbor and 3 offshore stations, tracking the drogues during a tidal cycle. Drogues were released under two different wind speeds for 4 of the Pago Pago stations.

II.B.4. Oceanographic Conditions

~~Oceanographic conditions in the vicinity of the current and proposed modified discharge(s). Provide data on the following: [40 CFR 125.62(a)]~~

N/A: not required for small dischargers. However, an extensive monitoring study of the Harbor has been conducted as part of the existing NPDES permit. The results of the semi-annual sampling events are provided to EPA. Reports include:

- Utulei WWTP Receiving Water Quality and Sediment Monitoring Pago Pago Harbor – August 2002 Sampling
- Utulei WWTP Receiving Water Quality and Sediment Monitoring Pago Pago Harbor – March 2003 Sampling
- Utulei WWTP Receiving Water Quality and Sediment Monitoring Pago Pago Harbor – August 2003 Sampling
- Utulei WWTP Receiving Water Quality and Sediment Monitoring Pago Pago Harbor – February 2004 Sampling
- Utulei WWTP Receiving Water Quality and Sediment Monitoring Pago Pago Harbor – September 2004 Sampling
- Utulei WWTP Receiving Water Quality and Sediment Monitoring Pago Pago Harbor – February 2005 Sampling (In preparation)
- Utulei WWTP Receiving Water Quality and Sediment Monitoring Pago Pago Harbor – August 2005 Sampling (In preparation)
-

Monitoring associated with the canneries' joint outfall also provides additional water quality data on the harbor.

II.B.5. Previously Discharged Effluent

Do the receiving waters for your discharge contain significant amounts of effluent previously discharged from the treatment works for which you are applying for a section 301(h) modified permit? [40 CFR 125.57(a)(9)]

No, receiving water monitoring indicates no reflux or build-up of effluent. Circulation and flushing, along high initial dilution achieved, are sufficient to prevent any trapping or build-up of effluent.

II.B.6. Ambient Water Quality Conditions During Maximum Stratification

Ambient water quality conditions during the period(s) of maximum stratification: at the zone of initial dilution (ZID) boundary, at other areas of potential impact, and at control stations. [40 CFR 125.62(a)]

~~a. Provide profiles (with depth) on the following for the current discharge location and for the modified discharge location, if different from the current discharge:~~

N/A: not required for small dischargers. However, density profile data are routinely collected in Outer Pago Pago Harbor during receiving monitoring for the Utulei WWTP and the Joint Cannery Outfall. Data are provided in the reports referenced under II.B.4 above and in semi-annual monitoring reports provided to EPA for the cannery outfall monitoring.

b. Provide available data on the following in the vicinity of the current discharge location and for the modified discharge location, if different from the current discharge: [40 CFR 125.61(b)(1)]

As part of the NPDES permit, receiving water samples were collected semi-annually. Samples were collected at three depths (near surface, mid, and bottom) at stations around the Zone of Initial Dilution (ZID) and reference stations around the harbor. Station locations are shown in Figure 7, Attachment A, and tables providing the complete receiving water quality monitoring data from 2002 through 2005 are included in the Supporting Technical Analysis (Tables 1-10; Attachment C). Provided below are general summaries and comments for each of the constituents listed as follows:

- ***Dissolved oxygen (mg/L)*** ranged between 5.1 and 7.4 mg/l, the ASWQS for Pago Pago Harbor is not less than 70 % saturation or less than 5.0 mg/l. Average DO was 6.13 mg/l.
- ***Suspended solids (mg/L) [Total Suspended Solids, TSS (mg/l)]*** ranged between 1 and 11 mg/l with an average of 2 mg/l. The maximum value of 11 mg/l is an outlier compared to the rest of the dataset. There is currently no ASWQS for Pago Pago Harbor for TSS.
- ***pH*** ranged between 7.95 to 8.34 with a mean of 8.14 SU, which is typical for marine waters. The ASWQS is range of 6.5 to 8.6 and be within 0.2 pH units of that which would occur naturally.
- ***Temperature (ºC):)*** Water temperature ranged from 27.2 to 30.6 with an average of 28.7 ºC. Some minor seasonal variation naturally occurs.
- ***Salinity (ppt):*** Salinity ranged from 33.0 ppt to 36.4 ppt with an average of 34.9 ppt.
- ***Transparency (turbidity, percent light transmittance):*** Turbidity values ranged from 0.03 to 1.6 NTU with an average of 0.25 NTU. The ASWQS for Pago Pago Harbor is an average not to exceed 0.75 NTU.
- ***Other significant variables (e.g., nutrients, 304(a)(1) criteria and toxic pollutants and pesticides, fecal coliform bacteria)***
-
  - ***—Total Nitrogen (TN) (µg/l):*** TN ranged 40 to 1200 µg/l with an average of 160 µg/l for all of the data (2002-2005) and 140 µg/l for just the farfield stations. The reference station outside the mouth of Pago Pago Harbor had an average of 190 µg/l. The ASWQS for TN as N in Pago Pago Harbor is 200.0 µg/l.
  - ***—Total Phosphorus (TP) (µg/l:)*** **TP** ranged between 5 and 230 µg/l. Only 17 out of 146 individual samples were above ASWQS. The average of all of the data (2002-2005) was 22 µg/l, which is well below the ASWQS of 30.0 µg/l.

- ***—Chlorophyll-a (µg/l):*** Values ranged between 0.025 and 3.1 µg/l. Only 9 out of 147 individual samples were above ASWQS. The average of all of the data points (2002-2005) was 0.42 µg/l, which was well below the ASWQS for Pago Pago Harbor of an average of 1.0 µg/l (mg/m3).
- ***—Enterococci (No/100 ml):*** Enterococcus concentrations ranged between 0 and 1421 (Col/100ml) with a geometric mean of 4 col/100ml. The ASWQS for Pago Pago Harbor is 104/100ml (single sample maximum) and 35/100ml (steady state geometric mean).

c. Are there other periods when receiving water quality conditions may be more critical than the period(s) of maximum stratification? If so, describe these and other critical periods and data requested in 6.a. for the other critical period(s). [40 CFR 125.62(a)(1)]

No, there is little seasonal variation in the water column, in terms of salinity or temperature. Consequently haloclines and thermoclines do not form and the water column stays well mixed. The most critical profile available was selected from a nearby location to use in the modeling conducted on the Utulei WWTP for determining plume and dilution characteristics. The density profile has very small density gradients and very often there is no density gradient below 100 feet. There are no nearby significant freshwater inflows. The regional scale ocean currents are relatively constant causing no apparent oceanographic variability that would affect the transport of the discharge plume.

II.B.7. Steady State Sediment Dissolved Oxygen Demand and Dissolved Oxygen Demand Due to Sediment Resuspension

~~Provide data on steady state sediment dissolved oxygen demand and dissolved oxygen demand due to resuspension of sediments in the vicinity of your current and modified discharge(s) (mg/L/day).~~

N/A: not required for small dischargers

II.C. Biological Conditions

II.C.1. Representative Biological Communities

~~Provide a detailed description of representative biological communities (e.g., plankton, macrobenthos, demersal fish, etc.) in the vicinity of your current and modified discharge(s): within the ZID, at the ZID boundary, at other areas of potential discharge-related impact, and at reference (control) sites. Community characteristics to be described shall include (but not be limited to) species composition; abundance; dominance and diversity; spatial/temporal distribution; growth and reproduction; disease frequency; trophic structure and productivity patterns; presence of opportunistic species; bioaccu- mulation of toxic materials; and the occurrence of mass mortalities.~~

N/A: not required for small dischargers

II.C.2. Distinctive Habitats of Limited Distribution

a. Are distinctive habitats of limited distribution (such as kelp beds or coral reefs) located in areas potentially affected by the modified discharge? [40 CFR 125.62(c)]

Coral reefs are located in proximity to the existing discharge but are not limited in distribution in American Samoa on Tutuila Island.

b. If yes, provide information on type, extent, and location of habitats.

The east and south shores of Tutuila Island have a nearly continuous fringing coral reef. The Taema and Nafanua Banks, 1.5 miles offshore, run parallel to shoreline, and represent a former barrier reef now submerged to 18.3 meters (60 feett) or more. Pago Pago Harbor is fringed with coral reef with the exception of the inner-most northwest corner of the inner harbor. The discharge plume, off Tulutulu Point, is deep enough that it does not adversely affect any areas of coral reef habitat.

Coral reef surveys conducted throughout Pago Pago Harbor since 1991, including stations near the Utulei discharge, have shown no degradation, and potential improvement in overall coral reef health in terms of number of species of hard coral and percent coverage.

II.C.3. Commercial and Recreational Fisheries

a. Are commercial or recreational fisheries located in areas potentially affected by the discharge? [40 CFR 125.62(c) and (d)]

Yes, a recreational subsistence fishery is located within Pago Pago Harbor and Tutulia Island as a whole for a diverse array of fish and shellfish. The fishery is generally located in shallow waters (0-10 meters) and at coral reef tops.

b. If yes, provide information on types, location, and value of fisheries.

A considerable water depth separates the shoreline subsistence fishery activity from the Utulei WWTP outfall, the outfall is at 46 meters (150 feet) and the fishery is at 3 meters (10 feet) or less. Given the high levels of dilution of the effluent even under critical conditions (minimum probable dilution of between 120:1 to 130:1) and the plume trapping level below the surface, there is no significant possibility of causing harm to the subsistence fishery.

II.D. State and Federal Laws [40 CFR 125.61 and 125.62(a)(1)]

II.D.1. Applicable Water Quality Standards

Are there water quality standards applicable to the following pollutants for which a modification is requested:

- ***Biochemical oxygen demand?*** NO
- ***Dissolved oxygen?*** YES
- ***Suspended solids?*** NO
- ***Turbidity?*** YES
- ***Light transmission, light scattering, or maintenance of the euphotic zone?*** YES
- ***pH of the receiving water?*** YES

II.D.2. Water Use Classification

If yes, what is the water use classification for your discharge area? What are the applicable standards for your discharge area for each of the parameters for which a modification is requested? Provide a copy of all applicable water quality standards or a citation to where they can be found.

The water use classification for the discharge area is: Pago Pago Harbor

- ***The applicable standards for the discharge area are:*** The American Samoa Water Quality Standards (2006 Revision) which can be obtained from the American Samoa EPA.

- ***Parameters for which a modification is requested are provided in the table below.***

Utulei WWTP – Applicable Standards for which Modification is Requested		
Parameter Average Not to Exceed	**Given Value**	**Modification Requested**
Dissolved Oxygen (mg/l)	Not less than 70%saturation or less than 5.0 mg/l.	
Turbidity (NTU)	0.75	Mixing Zone within the ZID (see Section III.B.6 and Section III.B.7)
Light Penetration (feet)	130.00	
pH (SU)	pH 6.5 to 8.6 and be within 0.2 units of that which would occur naturally	

II.D.3. Consistency with Coastal Zone, Marine Sanctuary, and Endangered Species Laws

Will the modified discharge: [40 CFR 125.59(b)(3)]

- ***Be consistent with applicable State coastal zone management program(s) approved under the Coastal Zone Management Act as amended, 16 U.S.C. 1451 et seq.? [See 16 U.S.C. 1456(c)(3)(A)]***

(ASCMP) Manager certified that the proposed action to continue the Section 301(h)-modified NPDES permit for the Utulei WWTP does in fact comply with the goals and policies of the American Samoa Coastal Management Program, and if carried out in the manner described, will be consistent with that program. This correspondence was dated February 28, 1991 and was contained in the previous application as Appendix 4. Since that time the outfall and improvements to the Utulei WWTP have been fully implemented and the resultant water quality is better. If additional confirmation is required, another letter of support from the ASCMP Manager will be solicited

- ***Be located in a marine sanctuary designated under Title III of the Marine Protection, Research, and Sanctuaries Act (MPRSA) as amended, 16 U.S.C. 1431 et seq., or in an estuarine sanctuary designated under the Coastal Zone Management Act as amended, 16 U.S.C. 1461? If located in a marine sanctuary designated under Title III of the MPRSA, attach a copy of any certification or permit required under regulations governing such marine sanctuary. [See 16 U.S.C. 1432(f)(2)]***

  No, the closest marine sanctuary, Fagatele Bay, is located miles away from the Utulei WWTP outfall.

- ***Be consistent with the Endangered Species Act as amended, 16 U.S.C. 1531 et seq.? Provide the names of any threatened or endangered species that inhabit or obtain nutrients from waters that may be affected by the modified discharge. Identify any critical habitat that may be affected by the modified discharge and evaluate whether the modified discharge will affect threatened or endangered species or modify a critical habitat. [See 16 U.S.C. 1536(a)(2)]***

  Yes, the Utulei WWTP discharge is consistent with the Endangered Species Act. This was demonstrated in the original 301(h) waiver application. There is not any critical habitat located near the discharge that will be affected by the discharge.

II.D.4. Consistency with Other State and Federal Laws

Are you aware of any State or Federal laws or regulations (other than the Clean Water Act or the three statutes identified in item 3 above) or an Executive order which is applicable to your discharge? If yes, provide sufficient information to demonstrate that your modified discharge will comply with such law(s), regulation(s), or order(s). [40 CFR 125.59 (b)(3)]

Yes, the local Environment Quality Commission (EQC) is responsible for issuing the Water Quality Certification. Application was made in conjunction with the previous application process. Also a Mixing Zone Determination will be required from EQC. Application was made in conjunction with the previous application process.

With the appendices, under the previous application (on file at USEPA) a request for Water Quality Certification for a Section 301(h) NPDES permit for the Utulei WWTP was submitted to the Office of the Governor, Environmental Protection Agency. A letter from the Director of the American Samoa Environmental Protection Agency was signed stating that the discharge from the Utulei WWTP is consistent with the American Samoa Water Quality Standards. The Utulei WWTP is also in compliance with Sections 301, 302, 303, 306, 307 of the Clean Water Act, and certification was thereby granted.

III. TECHNICAL EVALUATION

III.A. Physical Characteristics of Discharge [40 CFR 125.62(a)]

III.A.1. Critical Initial Dilution

What is the critical initial dilution for your current and modified discharge(s) during 1) the period(s) of maximum stratification? and 2) any other critical period(s) of discharge volume/composition, water quality, biological seasons, or oceanographic conditions?

(1) Refer to the table below. During critical conditions the critical initial dilution (CID) for the existing (as-built) outfall and diffuser configuration is 91:1 based on 6.0 mgd. This is a flux-averaged dilution. Dilutions for individual ports ranged from 75:1 to 121:1. The CID was calculated using EPA's initial dilution model UDKHDEN for critical ambient and discharge conditions. For the design diffuser configuration the CID is 138:1 (based on 2.2 mgd) and for the increase flow being considered (3.0 mgd) the CID is 122:1. A detailed description of the hydraulic and dilution performance of the diffuser under the three flow regimes is provided in the Supporting Technical Analysis (Attachment D). In addition, an alternate diffuser port diameter configuration is also provided. Critical conditions were defined as follows:

- Maximum instantaneous effluent discharge rate was assumed to be 6.0 mgd, which is the hydraulic capacity of the treatment system.
- The effluent density was based on freshwater.
- Discharge port diameters and orientation were based on the as-built for the design configuration (i.e., with the port orifice restriction plates) and based on the removal of the port orifice restriction plates for the alternative configuration.
- Port flows were distributed based on hydraulic calculations (Hydro Model).
- The depth of the ports (top of riser) was based on a depth of 145 feet for all ports. Tidal ranges are small and water depths do not vary by more than 1 to 3 feet over tidal extremes. The plume traps below the surface under critical conditions.
- The model predictions using UDKHDEN were done accounting for plume merging. This is a conservative assumption (predicts dilutions lower than expected) since the alternating direction of port discharge is not accounted for.
- Current data for the area around the diffuser was sparse, so a worst case scenario of no current velocity was used for the model.
- The critical ambient density profile was determined by running the model for available density profiles and the case producing the lowest initial dilution was selected as the critical case. This was a profile taken in March 2003 (non-trade wind season) with a density gradient of 0.72 sigma-t units between the surface and the 150-foot depth. The profile was base on data collected at Station U which is located directly over the diffuser.

Flow	Design configuration[1]	Alternate configuration[2]
Existing (2.2 mgd)	139	144
Requested increase (3.0 mgd)	122	127
Maximum instantaneous(6.0 mgd)	91	91

[1] Design configuration utilizes the existing port orifice restriction plates. Dilution provided is the flux average dilution.
[2] Alternative design configuration consists of removing the existing port orifice restriction plates

(2) There are no other conditions considered more critical than those described above. Seasonal variations in ambient conditions are small. For the proposed annual average effluent discharge flows of 3 mgd, the flux-averaged dilution was calculated to be 122:1 under critical ambient conditions for

the as-built diffuser configuration. If the existing port configurations were modified by removing all orifice plates from the ports, resulting in a constant port diameter of 7.75 inches, the CID would become 91 and 127 for 6 mgd and 3 mgd effluent flows, respectively.

III.A.2. Dimensions of ZID

What are the dimensions of the zone of initial dilution for your modified discharge(s)?

The horizontal component of the zone of initial dilution (ZID) for the existing diffuser configuration is taken as the water depth of the discharge.(approximately 150 feet). The length of the diffuser is approximately 47 feet. Therefore the ZID is approximately 150 feet in each direction along the reef slope (or 300 feet wide) and 350 feet in an on-offshore direction (see Figures 3-6, Attachment A). However, it is noted that the onshore dimension of the ZID is limited by the reef slope bathymetry. Since the reef slope topography directs currents in an alongshore direction, it is the shore parallel dimension that is of most interest.

III.A.3. Effects of Ambient Currents and Stratification on Dispersion and Transport of the Wastefield

~~***What are the effects of ambient currents and stratification on dispersion and transport of the discharge plume/wastefield?***~~

N/A: not required for small dischargers. The circulation patterns in the discharge area result in good flushing as indicated by the receiving water data.

III.A.4. Significant Sedimentation of Suspended Solids

Will there be significant sedimentation of suspended solids in the vicinity of the modified discharge?

Using the method described in the 301(h) TSD for small dischargers, there will not be significant sedimentation of suspended solids in the vicinity of the discharge. The accumulation rate of sediment attributable to the discharge is less than 50 g/m^2 based on the average discharge of 2.2 mgd and the suspended solids average monthly loading of 1377 lbs/day. The same order of magnitude results would be obtained for the proposed 3 mgd flow and increased TSS loading. The relationship is shown in Figure 8 (Attachment A). Plume rise heights for critical conditions are provided in Attachment D.

III.A.5. Sedimentation of suspended solids.

- ~~***What fraction of the modified discharge's suspended solids will accumulate within the vicinity of the modified discharge?***~~
- ~~***What are the calculated area(s) and rate(s) of sediment accumulation within the vicinity of the modified discharge(s) (g/m2/yr)?***~~
- ~~***What is the fate of settleable solids transported beyond the calculated sediment accumulation area?***~~

N/A: not required for small dischargers

III.B. Compliance with Applicable Water Quality Standards and CWA 304(a)(1) water quality criteria [40 CFR 125.61(b) and 125.62(a)]

III.B.1. Dissolved Oxygen

What is the concentration of dissolved oxygen immediately following initial dilution for the period(s) of maximum stratification and any other critical period(s) of discharge volume/composition, water quality, biological seasons, or oceanographic conditions?

The dissolved oxygen after initial dilution (DO_f) is calculated as

$$DO_f = D0_a + \frac{DO_e - IDOD - DO_a}{S_a}$$

where

DO_e is the effluent DO (assumed zero),
IDOD = 5.0 mg/l as noted above,
Sa = initial dilution (flux averaged), and
and DO_a is average ambient DO over a tidal cycle and over the depth of the plume rise.

The minimum DO at the diffuser station is 5.63 mg/l (Table 4, Attachment C). The critical initial dilution for the proposed 3 mgd discharge is 127. Therefore the DO after initial dilution under critical case conditions is 5.55 mg/l (a decrease of about 1.5 %).

III.B.2. Farfield Dissolved Oxygen Depression

What is the farfield dissolved oxygen depression and resulting concentration due to BOD exertion of the wastefield during the period(s) of maximum stratification and any other critical period(s)?

Following the calculation of DO after initial dilution, and following the method of the 301(h) TSD, the next step is a test to determine whether farfield analysis is required. This test requires the determination of final 5-day biochemical oxygen demand (BOD5) concentration following initial dilution as follows:

$$BOD_f = BOD_a + \frac{(BOD_e - BOD_a)}{S_a}$$

where,

BOD_f = final BOD5 concentration of receiving water at plume trapping level in mg/l,
BOD_a = ambient BOD5 concentration in mg/l,
BOD_e = effluent BOD5 concentration in mg/l, and
S_a = initial dilution (flux-averaged).

The BOD_a value of 0.0 mg/l is appropriate given the high DO levels in the receiving water (BOD_5 has not been measured in the receiving water). The BOD_5 permit limitations is 157 mg/l as a daily maximum, and

$$BOD_f = \left(\frac{157 - 0.0}{127}\right) = 1.23 mg/l$$

The DO at the end of initial dilution, estimated by the equation above to immediately support the full demand of the BOD load. If it does not, a more detailed analysis of farfield DO effects is required. The test is stated as follows:

$$DO_s < DO_f - BOD_{fu}$$

where,

DOs = applicable DO standard, 5 mg/l,
DOf = dissolved oxygen concentration at the completion of initial dilution, mg/l, as calculated in II.B.1 above,
BODfu = ultimate BOD at the completion of initial dilution = (1.46 x BOD_f) mg/l, where BOD_f is calculated above.

If the above inequality is true, it can be assumed that the discharge cannot possibly violate the DO standard and no further analysis of farfield BOD exertion is required. If the inequality is not true, then the further analysis is required. In this case, additional analysis is required. Using the method described in the 301(h) TSD the farfield DO depression is less than 0.01 mg/l and is not measurable. The calculations are provided in Attachment E.

III.B.3. Dissolved Oxygen Depression Due to Steady Sediment Demand and Sediment Resuspension

~~What are the dissolved oxygen depressions and resulting concentrations near the bottom due to steady sediment demand and resuspension of sediments?~~

N/A: not required for small dischargers

III.B.4. Suspended Solids

What is the increase in receiving water suspended solids concentration immediately following initial dilution of the modified discharge(s)?

The largest relative effect will occur for the lowest receiving water value and the highest effluent concentration. Ambient TSS concentrations are generally low in Outer Pago Pago Harbor, available data indicates concentrations are typically below 5 mg/l. A range of 1 to 50 mg/l was considered to include the potential range expected in the receiving water. For the maximum effluent TSS concentrations, the permit limit of 150 mg/l was considered. For these conditions the change in TSS was calculated for the three flow conditions (existing 2.2 mgd, requested 3.0 mgd, and design maximum of 6.0 mgd) and the two diffuser configurations (existing and alternative). All of the situations examined were based on the most critical period of water column stratification. The overall increase in TSS due to the discharge is approximately 1 mg/l.

III.B.5. pH

~~What is the change in receiving water pH immediately following initial dilution of the modified discharge(s)?~~

N/A: not required for small dischargers

III.B.6. Compliance with Applicable Water Quality Standards

Does (will) the modified discharge comply with applicable water quality standards for:

- ***Dissolved oxygen?***

The discharge is assumed to have low DO values with concomitant high IDOD and BOD concentrations. However, the water quality standards will be achieved at the edge of the ZID and

no mixing zone extending beyond the ZID is required. See responses to III.B.1, III.B.2, and III.B.3 for more information on the magnitude of DO depressions resulting from the discharge.

- ***Suspended solids or surrogate standards?***

There is no American Samoa Water Quality Standard (ASWQS) for suspended solids. There are standards for turbidity and light penetration. Because of the high dilution achieved by the diffuser, the discharge is expected to result in compliance with the standards for both turbidity or light penetration. Receiving water quality data for turbidity and light penetration indicate that the standard for Pago Pago Harbor, 0.75 NTU and 65 ft 50% of the time respectively, is achieved, and occasional excursions above the ASWQS cannot be attributed to the discharge. Although the effluent is not expected to meet the ASWQS for turbidity, the high dilution results in no need for a mixing zone beyond the ZID.

- ***pH?***

All receiving water pH values are within the natural range of coastal oceanic waters, and thus the ASWQS is met. The effects of the discharge, beyond the ZID are negligible. Since the ASWQS and the effluent limitation are identical, no mixing zone, beyond the ZID, is required.

III.B.7. Water Quality Criteria at the ZID Under Critical Conditions

Provide data to demonstrate that all applicable State water quality standards, and all applicable water quality criteria established under Section 304(a)(1) of the Clean Water Act for which there are no directly corresponding numerical applicable water quality standards approved by EPA, are met at and beyond the boundary of the ZID under critical environmental and treatment plant conditions in the waters surrounding or adjacent to the point at which your effluent is discharged. [40 CFR 125.62(a)(1)]

There are "state" (American Samoa) water quality standards for parameters listed in the following table. The receiving water monitoring data addresses most of these parameters and compliance status with ASWQS is noted in the table below for each parameter. The receiving water data are provided in Attachment C. The results are based on semi-annual sampling at the diffuser, at the edge of the ZOM, farfield, and reference station.

Two 304(a)(1) priority pollutant scans were conducted for the Utulei WWTP in September 2004 and March 2005. The results of these sampling events were provided to the Region 9 EPA and ASEPA and are provided in Attachment B.

- Utulei WWTP Effluent Priority Pollutant Analysis – September 2004 Sampling
- Utulei WWTP Effluent Priority Pollutant Analysis – March 2005 Sampling

American Samoa Water Quality Standards for Pago Pago Harbor		
Parameter	**Water Quality Standard Average not to Exceed the Given Value**	**Compliance at and beyond ZID**
Turbidity	0.75	Yes: Based on semi-annual monitoring, the average for all monitoring and reference stations (independently and collectively) was less than 0.75 NTU.
Total Phosphorus	30.0 mg/l as P	Yes: Based on semi-annual monitoring, the average for all monitoring and reference stations (independently and collectively) was less than 30 mg/l.
Total Nitrogen	200.0 mg/l as N	Yes: Based on semi-annual monitoring, the average for all monitoring and reference stations (independently and collectively) was less than 200 mg/l with the exception on one surface reading in 2002 for the reference station.
Chlorophyll-a	1.0 mg/l	Yes: Based on semi-annual monitoring, the average for all monitoring and reference stations (independently and collectively) was less than 1.0 mg/l.
Light Penetration	65 feet – to be exceeded 50% of the time (defined as depth of 99% extinction)	Yes: Based on Secchi depth reading, light penetration criterion is being met.
Dissolved Oxygen	Not less than 70% saturation or 5.0 mg/l or the natural level if less than 5.0 mg/l.	Yes: Based on semi-annual monitoring, DO for all monitoring and reference stations (independently and collectively) was greater than 5.0 mg/l.
pH	Between 6.5 SU and 8.6 SU and within 0.2 units of that which would occur naturally.	Yes: Based on semi-annual monitoring, pH for all monitoring and reference stations (independently and collectively) was well within the target range. The average was 8.1 SUwhich is within the natural range for ocean water.
Enterococci	35 per 100 ml (geometric mean) 104 per 100 ml (single sample)	In Part: geometric mean is met at all stations with the exception August 2005 at the edge of the ZOM. Individual samples often exceeded the single sample maximum. A mixing zone larger than the ZID is required to address compliance.

III.B.8. Compliance with 40 CFR 125.61(b)(2)

Provide the determination required by 40 CFR 125.61(b)(2) for compliance with all applicable provisions of State law, including water quality standards or, if the determination has not yet been received, a copy of a letter to the appropriate agency(s) requesting the required determination.

Under Appendix 6 of the previous application (on file at USEPA) a request for Water Quality Certification for a Section 301(h)-modified NPDES permit for the Utulei WWTP was submitted to the Office of the Governor, Environmental Protection Agency. A letter from Pati Faiai, Director of the

American Samoa Environmental Protection Agency was signed stating that the discharge from the Utulei WWTP is consistent with the American Samoa Water Quality Standards. The facility is also in compliance with Sections 301, 302, 303, 306, 307 of the Clean Water Act, and certification was thereby granted. If another letter stating the same thing is required, a request to the local ASEPA will be submitted.

III.C. Impact on Public Water Supplies [40 CFR 125.62(b)]

III.C.1. Presence of a Public Water Supply Intake

Is there a planned or existing public water supply (desalinization facility) intake in the vicinity of the current or modified discharge?

No, there is no such facility planned or needed.

III.C.2. Effects on Such Intake

If yes,

- ***What is the location of the intake(s) (latitude and longitude)?***
- ***Will the modified discharge(s) prevent the use of intake(s) for public water supply?***
- ***Will the modified discharge(s) cause increased treatment requirements for public water supply(s) to meet local, state, and EPA drinking water standards?***

N/A

III.D.Biological Impact of Discharge [40 CFR 125.62(c)]

III.D.1. Presence of a BIP

Does (will) a balanced indigenous population of shellfish, fish, and wildlife exist:

- ***Immediately beyond the ZID of the current and modified discharge(s)?***

  Yes, biological studies were considered in the original Section 301(h) decision document in 1985. That decision found that no adverse biological effects of the discharge were expected as the Utulei WWTP met the four criteria established in the 301(h) TSD. The Utulei WWTP still meets the criteria now listed in the 1994 301(h) TSD (page 82). The Utulei WWTP has high initial dilution and good flushing on an open coastline and has a low potential for impact given the applicability of the four criteria, as follows:

  - Location of the discharge in water depths greater than 10 meters (33 feet);
  - Hydrologic conditions that result in low predicted solids accumulation rates;
  - The absence of distinctive habitats of limited distribution and the absence of fisheries in the vicinity of the outfall, when such absences are not due to anthropogenic stresses; and
  - The absence of known or suspected sources of toxic pollutants and pesticides or low concentrations of these substances in the effluent.

  The first two criteria are met. The Utulei Outfall depth is 46 meters (150 feet). The predicted suspended solids accumulation rate is less than 50 g/m^2 for both the 2.2 mgd and 3 mgd discharge rates, as discussed in Section III.A.4 above and documented in the Supporting Technical Analysis (Attachment D).

  There is an absence of distinctive habitats of limited distribution near the Utulei WWTP outfall, as discussed in Section II.C.2 above, and the absence of a significant recreational fisheries in the vicinity of the outfall as discussed in Section II.C.3 above.

  The Utulei WWTP outfall, ZID and ZOM are believed to be absent of toxic pollutants and pesticides based on the results of the effluent priority pollutant analysis conducted in September 2004 and March 2005. These results are considered to be applicable to the current effluent as there has been minimal change in the type and character of the wastewater supplied to the Utulei facility. As documented in Section III.H below, there is no change in the amount of industrial wastewater coming into the Utulei WWTP.

- ***In all other areas beyond the ZID where marine life is actually or potentially affected by the current and modified discharge(s)?***

  As the Utulei WWTP discharge meets the above criteria within the ZID, it is highly probable that the discharge will meet the criteria beyond the ZID. There has been no impact to marine life in any area in proximity to or distant from the Utulei WWTP in 30+ years of operation.

III.D.2. Effects on Distinctive Habitats of Limited Distribution

Have distinctive habitats of limited distribution been impacted adversely by the current discharge and will such habitats be impacted adversely by the modified discharge?

No, distinctive habitats of limited distribution are located in the ZID, ZOM, or nearby proximity. The closest marine sanctuary, Fagatele Bay, is located more than 5 miles from the Utulei WWTP outfall. The modified discharge option with all ports at 7.75" has a similar dilution to the present condition, so no degradation in effluent quality is expected.

III.D.3. Effects on Commercial and Recreational Fisheries

Have commercial or recreational fisheries been impacted adversely by the current discharge (e.g., warnings, restrictions, closures, or mass mortalities) or will they be impacted adversely by the modified discharge?

There have been no warnings, restrictions, closures, or mass mortalities caused by the Utulei WWTP to any commercial or recreational fishery. As discussed in Section II.C.3 above, there was a lack of potential for these fisheries to be impacted by the Utulei WWTP effluent discharge outfall and diffuser. The American Samoa Department of Marine and Wildlife Resources provided documentation, and those comments were supplied in Appendices of the 301(h) application document.

III.D.4. Other Impacts Within or Beyond the ZID

Does the current or modified discharge cause the following within or beyond the ZID: [40 CFR 125.62(c)(3)]

- ***Mass mortality of fishes or invertebrates due to oxygen depletion, high concentrations of toxics, or other conditions?***
- ***An increased incidence of disease in marine organisms?***
- ***An abnormal body burden of any toxic material in marine organisms?***
- ***Any other extreme, adverse biological impacts?***

No toxicity has been demonstrated in the ZID. Toxicity testing has been conducted for the Utulei WWTP effluent by the US EPA, Region 9, Laboratory, using the sea urchin fertilization toxicity test, from 2002 to 2005. The target TUC set in the existing permit has been met. The highest TUC after critical dilutions is <1. Results of these tests are presented in tabular form in the Supporting Technical Analysis (Attachment B).

III.D.5. For discharges into saline estuarine waters: [40 CFR 125.62(c)(4)]

- ***Does or will the current or modified discharge cause substantial differences in the benthic population within the ZID and beyond the ZID?***
- ***Does or will the current or modified discharge interfere with migratory pathways within the ZID?***
- ***Does or will the current or modified discharge result in bioaccumulation of toxic pollutants or pesticides at levels which exert adverse effects on the biota within the ZID?***

  N/A: Discharge is into outer Pago Pago Harbor.

III.D.6. Compliance with 40 CFR 125.62(a)-(d) for Improved Discharges

For improved discharges, will the proposed improved discharge(s) comply with the requirements of 40 CFR 125.62(a) through 125.62(d)? [40 CFR 125.62(e)]

N/A

III.D.7. Compliance with 40 CFR 125.62(a)-(d) for Altered Discharges

For altered discharge(s), will the altered discharge(s) comply with the requirements of 40 CFR 125.62(a) through 125.62(d)? [40 CFR 125.62(e)]

N/A: If the diffuser configuration and or flow and loadings are altered the critical condition at the maximum flow will not change from the existing condition.

III.D.8. Stressed Ocean Waters

If your current discharge is to stressed ocean waters, does or will your current or modified discharge: [40 CFR 125.62(f)]

- ***Contribute to, increase, or perpetuate such stressed condition?***
- ***Contribute to further degradation of the biota or water quality if the level of human perturbation from other sources increases?***
- ***Retard the recovery of the biota or water quality if human perturbation from other sources decreases?***

N/A: Discharge is not into stressed ocean waters

III.E. Impacts of Discharge on Recreational Activities [40 CFR 125.62(d)]

III.E.1 Activities Likely to be Affected

Describe the existing or potential recreational activities likely to be affected by the modified discharge(s) beyond the zone of initial dilution.

No effects. Recreational activities include boating, which would not be effected by the discharge, and fishing. No commercial fishing occurs in the harbor. Recreational and subsistence fishing occurs at shallow depths and on the reef flats, so they would not be effected by the discharge.

III.E.2. Impacts, including Discussion of Fecal Coliform Bacteria

What are the existing and potential impacts of the modified discharge(s) on recreational activities? Your answer should include, but not be limited to, a discussion of fecal coliform bacteria.

While there are recreational beaches within Pago Pago Harbor, there is no beach or other primary water contact in the area of the outfall. Since this is a saltwater outfall, intake of water would be minimal. Monitoring of Fecal Coliform and *Enterococci* indicate generally low levels of these bacteria outside of the ZOM. Occasional spikes in these bacteria have been reported at the farfield stations and were not attributed to the Utulei WWTP outfall.

III.E.3. Federal, State, or Local Restrictions

Are there any Federal, State, or local restrictions on recreational activities in the vicinity of the modified discharge(s)? If yes, describe the restrictions and provide citations to available references.

No restrictions by federal or territorial authorities exist in the vicinity of the discharge, however, it borders but does not encroach on, the main shipping channel of Pago Pago Harbor.

III.E.4. Modification of Such Restrictions under Secondary Treatment

If recreational restrictions exist, would such restrictions be lifted or modified if you were discharging a secondary treatment effluent?

N/A: no recreational restrictions exist in discharge area

III.F. Establishment of a Monitoring Program [40 CFR 125.63]

III.F.1. Biological, Water Quality, and Effluent Monitoring Programs

Describe the biological, water quality, and effluent monitoring programs which you propose to meet the criteria of 40 CFR 125.63. Only those scientific investigations that are necessary to study the effects of the proposed discharge should be included in the scope of the 301(h) monitoring program [40 CFR 125.63(a)(1)(i)(B)].

Because of the high dilution achieved by the diffuser and the good flushing characteristics of the receiving water, it is unlikely that any effect of the effluent discharge can be measured in a receiving water monitoring effort targeted at the ZID boundary and beyond. Examination of the available data (see the Supporting Technical Analysis, Attachment C) indicates that the variability in concentrations of currently targeted receiving water monitoring parameters is typically not attributable to the discharge. Therefore, the existing monitoring requirements do not provide much useful data concerning the effects of the discharge on the receiving water and associated biological communities.

The best approach to examine the potential effects of the discharge on the receiving water and biological communities in the vicinity of the discharge is to examine the sediments, which tend to integrate effects over long periods of time. Since sediment quality and the response of the benthic community structure change slowly, this monitoring need not be done frequently to determine if the discharge is having any effect. It is noted that the previous coral reef monitoring has not shown any detrimental effect of the discharge on adjacent coral reefs.

Transport of bacteria to the shoreline after discharge could be a perceived, although unlikely, issue. There are no nearby recreational use areas, and other sources of bacteria (runoff from permanent and intermittent streams) into Harbor waters, could easily dominate the bacterial concentrations, if any, along the shoreline. A survey of shoreline bacteria, adequately designed to account for other sources, would be useful to characterize the shoreline distribution and develop a baseline survey for future reference. However, an ongoing monitoring plan is not likely to be useful for characterizing the effects of the Utulei WWTP discharge.

Based on the above discussions and a careful examination of the existing data, the following proposal is made for future monitoring:

- Receiving water quality monitoring as currently conducted should be discontinued or minimized to include only ZOM and reference stations (Stations A1, B1, and 5) and should include a minimal parameter list (DO, light penetration, temperature, and salinity).

- A sediment monitoring study, including selected chemical parameters and benthic community enumeration should be conducted once per permit cycle (once every 5 years). The study should include stations near the edge of the ZID, in the farfield along the expected trajectory of the plume, and at reference sites. A study plan would be developed and approved as a special condition of the renewal permit. Coral reef surveys, which only address water depth of 60 feet or less, should be discontinued.

- A one-time shoreline bacteria study is recommended. The study should be designed to enable identification, to the extent possible, of sources other than the effluent discharge. A study plan could be developed and approved as a special condition of the renewal permit.

- If the sediment study or the shoreline bacteria survey shows potential impact then a dye study to define the plume dilution and transport (nearfield and farfield) could be done. But such a

study is not recommended unless and until other monitoring indicates it is necessary. The requirement for such a study could be in a special condition allowing EPA to require such a study during the permit period if other monitoring results indicated it would be useful.

III.F.2. Sampling Techniques, Schedules, Locations, Analytical Techniques, Quality Control, and Verification Procedures

Describe the sampling techniques, schedules, and locations, analytical techniques, quality control and verification procedures to be used.

It is proposed that the monitoring studies described in III.F.1 above be included in the NPDES permit as a special condition, and as a part of that condition the development of a study plan within a given time (e.g. six months) of the effective date of the permit be required. The study plan would address the sampling techniques, schedules, and locations, analytical techniques, quality control and verification procedures to be used. The study plan would be submitted to and approved by USEPA-Region 9 and ASEPA prior to implementation of the study. In this way a meaningful study, useful to all parties, could be cooperatively developed. It is proposed that only the broad outlines of the studies be specified in the permit special condition and those for the sediment study would include:

- Draft study plan required within 6 months of effective data of permit.
- USEPA and ASEPA to review and comment within 60 days of receipt of the study plan.
- ASPA to respond with revised draft within 60 days of comments.
- Final approval and conditions of the study plan to be developed and approved within 1 year of the effective data of the permit.
- Sediment study to include up to 6 stations including reference stations. Analysis to include physical and chemical parameters to be developed in the study plan. Such parameters should be reasonable in terms of expected contaminants.
- Benthic community to be sorted, counted, and identified to the general taxonomic groupings. Identification to species is not required or necessary.
- The sampling will be done no more than two times, representing the major tradewind and non-tradewind oceanographic seasons.

III.F.3. Personnel and Financial Resources Available

Describe the personnel and financial resources available to implement the monitoring programs upon issuance of a modified permit and to carry it out for the life of the modified permit.

Resources necessary to carry out the monitoring program will be supported by increasing the operations budget provided by ASPA. Personnel from ASPA and selected consultants, if necessary, will be provided for sample collection, transportation, analysis, reporting and interpretation. It is expected that ASEPA laboratory will analyze samples for Enterococci. Other analyses will be done by selected and approved laboratories specified in the study plans.

ASPA has indicated that they will retain the services of an outside consultant to carry out elements of the monitoring that cannot be directly supported by ASPA staff.

III.G. Effect of Discharge on Other Point and Nonpoint Sources [40 CFR 125.64]

III.G.1. Additional Treatment or Control Requirements for Other Point or Nonpoint Sources

Does (will) your modified discharge(s) cause additional treatment or control requirements for any other point or nonpoint pollution source(s)?

No. There is one other outfall in Pago Pago Harbor, the joint cannery outfall (JCO). The effluent streams from both canneries have NPDES permits. The Utulei WWTP outfall and the JCO outfall coordinate monitoring activities.

III.G.2. Determination Required by 40 CFR 125.64(b)

Provide the determination required by 40 CFR 125.64(b) or, if the determination has not yet been received, a copy of a letter to the appropriate agency(s) requesting the required determination.

The local Environment Quality Commission is responsible for issuing water quality certification. Application was made in conjunction with the previous application process.

Under Appendix 6 of the previous application (on file at USEPA) a request for Water Quality Certification for a Section 301(h)-modified NPDES permit for the Utulei WWTP was submitted to the Office of the Governor, Environmental Protection Agency.

A letter from Pati Faiai, Director of the American Samoa Environmental Protection Agency was signed stating that the proposed discharge from the Utulei WWTP is consistent with the American Samoa Water Quality Standards. The facility is also in compliance with Sections 301, 302, 303, 306, 307 of the Clean Water Act, and certification was thereby granted.

If additional documentation is required, then the new determination will be made part of the application for another Water Quality Certification from the ASEPA.

III.H. Toxics Control Program and Urban Area Pretreatment Program [40 CFR 125.65 and 125.66]

III.H.1. Industrial Sources of Toxic Pollutants or Pesticides

a. Do you have any known or suspected industrial sources of toxic pollutants or pesticides?

No

b. If no, provide the certification required by 40 CFR 125.66(a)(2) for small dischargers, and required by 40 CFR 125.66(c)(2) for large dischargers.

In the previous Utulei 301(h) renewal application, we it was certified that there were no known or suspected sources of toxic pollutants in the service area of the Utulei WWTP. The sewage flowing into the Utulei WWTP from all industrial park renters is domestic in nature only. There are no other industrial inputs planned in the service area. Note: While the canneries are hooked up to the Utulei WWTP, only domestic waste is sent to Utulei. Industrial waste is handled by the canneries with an independent treatment system, outfall, and corresponding NPDES permits.

c. Provide the results of wet and dry weather effluent analyses for toxic pollutants and pesticides as required by 40 CFR 125.66(a)(1).

Two 304(a)(1) priority pollutant scans were conducted for the Utulei WWTP in September 2004 and March 2005. The results of these sampling events were provided to the Region 9 EPA and ASEPA and are included here by reference.

- Utulei WWTP Effluent Priority Pollutant Analysis – September 2004 Sampling
- Utulei WWTP Effluent Priority Pollutant Analysis – March 2005 Sampling

Based on these sampling events, the Utulei WWTP effluent was found to contain no significant toxic pollutants or pesticides (See results in Section II.A.4, above). Furthermore, using the estimated critical initial dilution of 45:1 USEPA determined that all toxic pollutants and pesticides levels complied with American Samoa numerical toxic standards and U.S. EPA water quality criteria. In fact the critical initial dilution is actually more than 4 times that previously used, therefore the same toxic standards and criteria will be readily met.

Under the current permit, toxicity samples for bioassay testing of the effluent have been collected and sent to the USEPA on a regular basis in excess of the permit requirements, and to date permit required toxicity targets have been consistently met.

d. Provide an analysis of known or suspected industrial sources of toxic pollutants and pesticides identified in (1)(c) above in accordance with 40 CFR 125.66 (b).

There are no known or suspected sources of toxic pollutants per our findings addressed under Section III.H.3 below. Since we certified that the Utulei WWTP effluent has no known or suspected sources of toxic pollutants or pesticides, and we have verified that certification with an industrial user's survey, we believe we should be exempt from the requirements of this section.

III.H.2. Related Water Quality, Sediment Accumulation, or Biological Problems

a. Are there any known or suspected water quality, sediment accumulation, or biological problems related to toxic pollutants or pesticides from your modified discharge(s)?

No, there is no known or suspected water quality, sediment accumulation, or biological problems related to toxic pollutants or pesticides. The sediment accumulation from the Utulei WWTP outfall is very small, on the order of < 50 g/m^2.

As stated in Section III.D.4 above, no toxicity has been demonstrated in the toxicity testing conducted for the Utulei WWTP effluent by the USEPA, Region 9, Laboratory, using the sea urchin fertilization toxicity test, from 2000 to 2004. The target TUC set in the existing permit has been met. The highest TU C after critical dilution is <1. Results of these tests are presented in tabular form in the Supporting Technical Analysis document (Attachment 2 1).

b. If no, provide the certification required by 40 CFR 125.66(d)(2) together with available supporting data.

N/A

c. If yes, provide a schedule for development and implementation of nonindustrial toxics control programs to meet the requirements of 40 CFR 125.66(d)(3).

N/A

d. Provide a schedule for development and implementation of a nonindustrial toxics control program to meet the requirements of 40 CFR 125.66(d)(3).

N/A: for large dischargers only

III.H.3. Public Education Program to Minimize Entrance of Nonindustrial Toxic Pollutants and Pesticides

Describe the public education program you propose to minimize the entrance of nonindustrial toxic pollutants and pesticides into your treatment system [40 CFR 125.66(d)(1)]

The Non-industrial Source Control Education Program was originally implemented in 1989 and consisted of a series of radio spots, newspaper notices, a panel TV show, and three-fold handouts. This program included personnel from ASPA, ASEPA, Public Health and the Office of Samoan Affairs. It is the intent and our proposal to continue the public education program on a continuous rotating basis to assure wide coverage of the education information.

III.H.4. Industrial Pretreatment Program

Do you have an approved industrial pretreatment program (40 CFR 125.66(c)(1)?

- ***If yes, provide the date of EPA approval.***

  N/A

- ***If no, and if required by 40 CFR Part 403 to have an industrial pretreatment program, provide a proposed schedule for development and implementation of your industrial pretreatment program to meet the requirements of 40 CFR Part 403.***

  N/A

III.H.5. Urban area pretreatment requirement [40 CFR 125.65]

- ~~***Provide data on all toxic pollutants introduced into the treatment works from industrial sources (categorical and noncategorical).***~~
- ~~***Note whether applicable pretreatment requirements are in effect for each toxic pollutant. Are the industrial sources introducing such toxic pollutants in compliance with all of their pretreatment requirements? Are these pretreatment requirements being enforced? [40 CFR 125.65(b)(2)]***~~
- ~~***If applicable pretreatment requirements do not exist for each toxic pollutant in the POTW effluent introduced by industrial sources,***~~
    - ~~***provide a description and a schedule for your development and implementation of applicable pretreatment requirements [40 CFR 125.65(c)], or***~~
    - ~~***describe how you propose to demonstrate secondary removal equivalency for each of those toxic pollutants, including a schedule for compliance, by using a secondary treatment pilot plant. [40 CFR 125.65(d)]***~~

N/A. Utulei WWTP is a small discharger currently serving a population of 9,000 with a build out population that may approach 20,000. Therefore, we are exempt from requirements of this section.