# NPDES Permit Renewal Application Form 2A

For

# TAFUNA WASTEWATER TREATMENT PLANT

NPDES Permit No. AS0020010



# Submitted By

**AMERICAN SAMOA POWER AUTHORITY** 

May 4, 2004

FORM

2A

### NPDES FORM 2A APPLICATION OVERVIEW

**NPDES** 

#### **APPLICATION OVERVIEW**

Form 2A has been developed in a modular format and consists of a "Basic Application Information" packet and a "Supplemental Application Information" packet. The Basic Application Information packet is divided into two parts. All applicants must complete Parts A and C. Applicants with a design flow greater than or equal to 0.1 mgd must also complete Part B. Some applicants must also complete the Supplemental Application Information packet. The following items explain which parts of Form 2A you must complete.

### **BASIC APPLICATION INFORMATION:**

- A. Basic Application Information for all Applicants. All applicants must complete questions A 1 through A.8. A treatment works that discharges effluent to surface waters of the United States must also answer questions A.9 through A.12.
- B. Additional Application Information for Applicants with a Design Flow ≥ 0.1 mgd. All treatment works that have design flows greater than or equal to 0.1 million gallons per day must complete questions B.1 through B.6.
- C. Certification. All applicants must complete Part C (Certification).

### SUPPLEMENTAL APPLICATION INFORMATION:

- D. Expanded Effluent Testing Data. A treatment works that discharges effluent to surface waters of the United States and meets one or more of the following criteria must complete Part D (Expanded Effluent Testing Data):
- 1. Has a design flow rate greater than or equal to 1mgd.
- 2. Is required to have a pretreatment program (or has one in place), or
- 3. Is otherwise required by the permitting authority to provide the information.
- E. Toxicity Testing Data. A treatment works that meets one or more of the following criteria must complete Part E (Toxicity Testing Data):
  - Has a design flow rate greater than or equal to 1 mgd,
  - 2. Is required to have a pretreatment program (or has one in place), or
  - 3. Is otherwise required by the permitting authority to submit results of toxicity testing.
- F. Industrial User Discharges and RCRA/CERCLA Wastes. A treatment works that accepts process wastewater from any significant industrial users (SIUs) or receives RCRA or CERCLA wastes must complete Part F (Industrial User Discharges and RCRA/CERCLA Wastes). SIUs are defined as:
  - 1. All industrial users subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations (CFR) 403.6 and 40 CFR Chapter I, Subchapter N (see instructions); and
  - Any other industrial user that:
    - a. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions); or
    - b. Contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the treatment plant; or
    - c. Is designated as an SIU by the control authority.
- G. Combined Sewer Systems. A treatment works that has a combined sewer system must complete Part G (Combined Sewer Systems).

### ALL APPLICANTS MUST COMPLETE PART C (CERTIFICATION)

### SIC APPLICATION INFORMATION

PAR	T A. BASIC APPLIC	ATION INFORMATION FOR AL	L APPLICANTS:	100000000000000000000000000000000000000
All tr	eatment works must d	complete questions A.1 through A	A.8 of this Basic Application Informa	tion Packet.
A.1.	Facility Information	n.		
	Facility Name	Tafuna Sewage Treatment I	Plant	
	Mailing Address	c/o ASPA-Wastewater Divis		
	Maining / Root 000	Pago Pago, As 96799		
	Contact Person	Michael Dworsky		
	Title	Sanitary Engineer		
	Telephone Number	(684) 699-1462		-
	Facility Address (not P.O. Box)	<u>Fogagogo</u> Tutuila Island, American Sa	amoa	
A.2.	Applicant Informa	tion. If the applicant is different from	m the above, provide the following:	
	Applicant Name	N/A		
	Mailing Address			
etra.	Contact Person			
	Title	<i>y</i> -	_	
	Telephone Number	· (		
	Is the applicant th	e owner or operator (or both) of the	he treatment works?	
	⊠ owner	operator		
	Indicate whether co	orrespondence regarding this permit	should be directed to the facility or the	applicant.
		applicant		
A.3.		nental Permits. Provide the permits (include state-issued permits).	number of any existing environmental	permits that have been issued to
	NPDES AS00	)20010	PSD	
	UIC		Other	
	RCRA		Other	
A.4.		itity and, if known, provide information	municipalities and areas served by th on on the type of collection system (co	
	Name	Population Served	Type of Collection System	Ownership
	Tafuna Plains	12,000	Sanitary	Territorial Utility
, v <sub>e</sub> T in di	Total population	n served <u>12,000</u>	<del></del>	

### TAFUNA WWTP - NPDES # AS0020010

	Indian	Country.				
	a.	Is the treatment works located in Ir	ndian Country?			
		☐ Yes ⊠ No				
	b.	Does the treatment works discharg flows through) Indian Country?	e to a receiving water that is e	either in Indian Country or	that is upstrea	m from (and eventually
		☐ Yes ☐ No				
	average	dicate the design flow rate of the tre daily flow rate and maximum daily fl th the 12 <sup>th</sup> month of "this year" occu	ow rate for each of the last thr	ee years. Each year's dat	ta must be bas	
-	a.	Design flow rate 6.0 mg	d			
			Two Years Ago	Last Year	<u>Thi</u>	is Year
	b.	Annual average daily flow rate	1.74	1.74	<u>1.8</u>	33
	c.	Maximum daily flow rate	5.41	2.93	<u>3.9</u>	97
		on System. Indicate the type(s) of cion (by miles) of each.	ollection system(s) used by th	ne treatment plant. Check	all that apply.	Also estimate the perc
	⊠ Sepa	rate sanitary sewer			100	%
	☐ Com	bined storm and sanitary sewer			N/A	%
	Dischar	ges and Other Disposal Methods.				
	_	\$-		NO 177 V		Na
	a.	Does the treatment works discharg				No
		If yes, list how many of each of the		points the treatment works	4	
		i. Discharges of treated ef				
		· ·	or partially treated effluent			
		iii. Combined sewer overflo	·	a alaa X		
			overflows (prior to the headw	orks)	0	
	b.	v. Other N/A  Does the treatment works discharge that do not have outlets for discharded the control of the con	•	r other surface impoundme	ents	No
		If yes, provide the following for each	ch surface impoundment:			
		Location: N/A				
		Annual average daily volume disch	narge to surface impoundment	t(s) <u>N/A</u>		mgd
		ls discharge	s or intermittent?			
	C.	Does the treatment works land-app	oly treated wastewater?		☐ Yes	⊠ No
		If yes, provide the following for each	ch land application site:			
		Location: N/A				
		Number of acres: N/A				
		Number of acres: N/A  Annual average daily volume appli	ed to site: N/	<b>A</b> r	ngd	
		Annual average daily volume appli	red to site: N/.		mgd	

### TAFUNA WWTP - NPDES # AS0020010

	If yes, describe the mean(s) by which the wastewater from the treatment works is discharged or transported to the other treatment works (e.g., tank truck, pipe).						
	<u>N/A</u>						
	If transport is by a party other than the applicant, provide:						
	Transporter Name N/A						
	Mailing Address						
	Contact Person						
	Title						
	Telephone Number (						
	For each treatment works that receives this discharge, provide the following:						
	Name N/A						
	Mailing Address						
	Contact Person						
	Title						
	Telephone Number (						
	If known, provide the NPDES permit number of the treatment works that receives this discharge N/A						
	Provide the average daily flow rate from the treatment works into the receiving facility mgd						
e.	Does the treatment works discharge or dispose of its wastewater in a manner not included in A.8. through A.8.d above (e.g., underground percolation, well injection):						
	If yes, provide the following for each disposal method:						
	Description of method (including location and size of site(s) if applicable):						
	N/A						
	Annual daily volume disposed by this method:						
	Is disposal through this method						



# WASTEWATER DISCHARGES:

If you answered "yes" to question A.8.a, complete questions A.9 through A.12 once for each outfall (including bypass points) through which effluent is discharged. Do not include information on combined sewer overflows in this section. If you answered "no" to question A.8.a, go to Part B, "Additional Application Information for Applicants with a Design Flow Greater than or Equal to 0.1 mgd."

<b>)</b> .	Desci	iption of Outfall.				
	a.	Outfall number	001			
	b.	Location	Fogagogo			96799
			(City or town, if applic	able)		(Zip Code)
			Tualauta (County)			A.S. (State)
			14d <u>20' 28.58" - Se</u>	211th		170d 43' 04.28" - West
			(Lattitutde)	Jutii		(Longitude)
	c.	Distance from shore (	if applicable)	<u>1550</u>		_ ft.
	d.	Depth below surface	(if applicable)	95		ft.
	e.	Average daily flow rat	e	1.8		_ mgd
	f.	Does this outfall have discharge?	either an intermittent or a	perìodic Yes	⊠ No	(go to A.9.g.)
		If yes, provide the foll	owing information:			
à		Number f tijmes per ye	N/A		<del></del>	
		Average duration of e	each discharge:	N/A	***************************************	_
		Average flow per disc	harge:	N/A		_ mgd
		Months in which discl	narge occurs:	N/A		_
	g.	ls outfall equipped wi	th a diffuser?		☐ No	
0.	Descr	iption of Receiving Wa	ters.			
	a.	Name of receiving wa	ter <u>Vai Cove,</u>	South Pacific Oc	ean	
	b.	Name of watershed (	f known) <u>N/A</u>			
		United States Soil Co	nservation Service 14-digit	watershed code (if	known):	N/A
	C.	Name of State Manag	gement/River Basin (if knov	vn): <u>N/A</u>		
		United States Geolog	ical Survey 8-digit hydrolog	gic cataloging unit co	ode (if known	i): <u>N/A</u>
	d.	Critical low flow of red	ceiving stream (if applicable	e) chronic <u>N/A</u>		cfs
	e.	Total hardness of rec	eiving stream at critical low	flow (if applicable).	N/A	mg/l of CaCO₃

` <b></b>	Description	on of T	reatmer	nt								
	a. V	/hat lev	vels of tr	eatment are pro	vided? Che	ck all that	apply.					
		☑ Prim	nary		Secondary							
		] Adva	anced	□. □	Other, Des	cribe: _				<u></u>		
	b. In	ndicate	the follo	wing removal ra	ates (as appli	icable):						
	D	esign E	3OD5 re	moval <u>or</u> Desigi	n CBOD5 rer	moval	30	)		%		
	D	esign S	SS remo	val			<u>30</u>	)		%		
	D	esign F	remova	al			*****			%		
	D	esign N	V remov	al						%		
	0	ther					***************************************			%		
	c. What type of disint			infection is used	for the efflu	ent from th	nis outfall?	If disinfection va	aries by season,	please describe:		
	<u>N</u>	/A										
	lf	disinfe	ction is l	by chlorination i	s dechlorinat	tion used f	or this outfa	all?	Yes	☐ No		
	d. D	oes the	e treatme	ent plant have p	ost aeration	?			Yes	⊠ No		
Outfall	In addition requireme	n, this ents fo	data mu r standa	ust comply with ard methods fo	h QA/QC red or analytes n	uirement ot addres	s of 40 CFI sed by 40	R Part 136 and	other appropri At a minimum,	effluent testing		
	PARAME	TER		MAXIMUM D	DAILY VAL	UE		AVERAGE	DAILY VALL	E		
				Value	Units		Value	Unit	s Nun	nber of Samples		
pH (Mir	nimum)			6.7	s.u.							
рН (Ма	ximum)			7.6	s.u.							
Flow Ra				2.86	MGD		1.88	MGI	)	60		
	rature (Winte				Not Monitored							
rempe	rature (Sumr * For pH pl		eport a r	ninimum and a	maximum da	ilv value	NOT IV	lonitored		•		
	POLLU			MAXIMU	M DAILY IARGE		VERAGE DISCHA		ANALYTICA METHOD	L ML/MDL		
				Conc.	Units	Conc.	Units	Number of Samples				
			NON C	CONVENTION	AL COMP	DUNDS		<del>  </del>				
	MICAL OXYO D (Report one		BOD5	96	mg/L	54.5	mg/L	52				
				5			Not	Monitored				
LECUAL	COLLEGERA	•	CBOD:									
	COLIFORM SUSPENDED			81	mg/L	38.7		Monitored 52				

### SIC APPLICATION INFORMATION

<u> </u>			
PAF	₹T B.		PPLICATION INFORMATION FOR APPLICANTS WITH A DESIGN FLOW GREATER LL TO 0.1 MGD (100,000 gallons per day).
All a	pplica	ants with a design flow	rate ≥ 0.1 mgd must answer questions B.1 through B.6. All others go to Part C (Certification).
B.1.		w and Infiltration. Esti /or infiltration.	mate the average number of gallons per day that flow into the treatment works from inflow
	30,0	000	gpd
	Brie	fly explain any steps ur	nderway or planned to minimize inflow and infiltration.
	<u>Ong</u>	going smoke testing	g, hydraulic flushing, and repair program, along with TV camera recordings and
	revi	ew of the videos.	
B.2.	bour		to this application a topographic map of the area extending at least one mile beyond facility property t show the outline of the facility and the following information. (You may submit more than one map if e entire area.)
	a.	The area surrounding th	e treatment plant, including all unit processes.
	b.		r structures through which wastewater enters the treatment works and the pipes or other structures through which scharged from the treatment plant. Include outfalls from bypass piping, if applicable.
	C.	Each well where wastev	vater from the treatment plant is injected underground.
	d.		face water bodies, and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment ublic record or otherwise known to the applicant.
p.M.	e.	Any areas where the se	wage sludge produced by the treatment works is stored, treated, or disposed.
	f.		eceives waste that is classified as hazardous under the Resource Conservation and Recovery Act (RCRA) by truck, won the map where the hazardous waste enters the treatment works and where it is treated, stored, and/or
B.3.	back chlor	up power sources or reduination and dechlorination	<b>Schematic.</b> Provide a diagram showing the processes of the treatment plant, including all bypass piping and all ndancy in the system. Also provide a water balance showing all treatment units, including disinfection (e.g., ). The water balance must show daily average flow rates at influent and discharge points and approximate daily units. Include a brief narrative description of the diagram.
<b>B.</b> 4.	Oper	ration/Maintenance Perfor	med by Contractor(s).
		F1	nance aspects (related to wastewater treatment and effluent quality) of the treatment works the responsibility of a es
		s, list the name, address, tes if necessary).	elephone number, and status of each contractor and describe the contractor's responsibilities (attach additional
	Nam	e:	N/A
	Maili	ng Address:	N/A
	Tele	phone Number:	(N/A)
	Resp	oonsibilities of Contractor:	N/A
B.5.	unco treat	mpleted plans for improve	s and Schedules of Implementation. Provide information on any uncompleted implementation schedule or ements that will affect the wastewater treatment, effluent quality, or design capacity of the treatment works. If the ifferent implementation schedules or is planning several improvements, submit separate responses to question B.5
	a.	List the outfall number (	assigned in question A.9) for each outfall that is covered by this implementation schedule.
رک ر	,	N/A	
. T.	b.	Indicate whether the pla	nned improvements or implementation schedule are required by local, State, or Federal agencies.
,"		Yes N	0

### TAFUNA WWTP - NPDES # AS0020010

	C.	If the answer to B.5,b is "Yes	," briefly desc	ribe, including	new maxim	um daily inflo	ow rate (if applicat	ile).	
egale , la	d.	N/A  Provide dates imposed by an applicable. For improvement applicable. Indicate dates as	s planned ind	lependently of	ny actual da local, State	ates of compl , or Federal a	letion for the imple agencies, indicate	mentation steps listed planned or actual com	below, as pletion dates, as
					e		Actual Co	mpletion	
		Implementation Stage		MM/DD/	YYYY		MM/DD/Y	•	
		- Begin Construction			1 1		1	1	
		- End Construction		···········	1 1		1		
		- Begin Discharge			, ,	<del></del>			
		- Attain Operational Level			·	··· <del>·</del>	1	1	
	e.	Have appropriate permits/cle	arances conc	erning other F	ederal/State	requiremen	ts been obtained?	Yes	□No
	0.	Describe briefly: N/A	u, u, 1000 00110	orning carer .					
		Describe offerty. 14/A							
		est three pollutant scans, preferantifall Number: 001 POLLUTANT	MAXIMUM DAILY DISCHARGE		AVERAGE DAILY DISCHARGE		ANALYTICAL METHOD	ML/MDL	
			Conc.	Units	Conc.	Units	Number of Samples		
CO	VE	NTIONAL AND NON CO	NVENTIO	NAL COMP	OUNDS	J			<del>"</del>
AMM	IONIA	(as N)				Not	Monitored		
CHL	ORIN	E (TOTAL RESIDUAL, TRC)				Not	Monitored		
DISS	OLVE	ED OXYGEN				Not	Monitored		
тот.	AL KJ	ELDAHL NITROGEN (TKN)				Not	Monitored		
NITE	ATE	PLUS NITRITE NITROGEN				Not	Monitored		
OIL a	and G	REASE	10	mg/L	10	mg/L	1	1664	
PHO	SPHO	ORUS (Total)				Not	Monitored	<u>.</u>	
TOT	AL DI	SSOLVED SOLIDS (TDS)					Monitored		
ОТН	FR S	Settleable Solids	0.5	ma/l	0.1	ma/l	60		



works or identify appropriate permitting requirements.

### TAFUNA WWTP - NPDES # AS0020010

A SOLO ADDI ICATION INCODA	AATION	
SIC APPLICATION INFORM	MATION	
PART C. CERTIFICATION		
applicants must complete all applicable sec	tions of Form 2A, as explaine his certification statement, ap	ons to determine who is an officer for the purposes of this certification. All d in the Application Overview. Indicate below which parts of Form 2A you have plicants confirm that they have reviewed Form 2A and have completed all
Indicate which parts of Form	2A you have completed	and are submitting:
Basic Application Information page	acket S	upplemental Application Information packet:
		Part D (Expanded Effluent Testing Data)
		Part E (Toxicity Testing: Biomonitoring Data)
		Part F (Industrial User Discharges and RCRA/CERCLA Wastes)
		Part G (Combined Sewer Systems)
ALL APPLICANTS MUST COMPLETE	E THE FOLLOWING CER	TIFICATION.
designed to assure that qualified personnel manage the system or those persons direct	properly gather and evaluate ly responsible for gathering the	e prepared under my direction or supervision in accordance with a system the information submitted. Based on my inquiry of the person or persons who he information, the information is, to the best of my knowledge and belief, true, for submitting false information, including the possibility of fine and imprisonment
Name and official title Micha	el Dwørsky, Sanitary	Engineer
Signature	h buly	
Telephone number 6 (684) (	699-1462	
Date signed 5	-4-0H	
Upon request of the permitting authority, yo	u must submit any other infor	mation necessary to assure wastewater treatment practices at the treatment

### TAFUNA WWTP - NPDES # AS0020010

Form Approved 1/14/99 OMB Number 2040-0086

#### PPLEMENTAL APPLICATION INFORMATION

#### PART E. TOXICITY TESTING DATA

Required Tests.

E.1.

POTWs meeting one or more of the following criteria must provide the results of whole effluent toxicity tests for acute or chronic toxicity for each of the facility's discharge points: 1) POTWs with a design flow rate greater than or equal to 1.0 mgd; 2) POTWs with a pretreatment program (or those that are required to have one under 40 CFR Part 403); or 3) POTWs required by the permitting authority to submit data for these parameters.

- At a minimum, these results must include quarterly testing for a 12-month period within the past 1 year using multiple species (minimum of two species), or the results from four tests performed at least annually in the four and one-half years prior to the application, provided the results show no appreciable toxicity, and testing for acute and/or chronic toxicity, depending on the range of receiving water dilution. Do not include information on combined sewer overflows in this section. All information reported must be based on data collected through analysis conducted using 40 CFR Part 136 methods. In addition, this data must comply with QA/QC requirements of 40 CFR Part 136 and other appropriate QA/QC requirements for standard methods for analytes not addressed by 40 CFR Part 136.
- In addition, submit the results of any other whole effluent toxicity tests from the past four and one-half years. If a whole effluent toxicity test conducted during the past four and one-half years revealed toxicity, provide any information on the cause of the toxicity or any results of a toxicity reduction evaluation, if one was conducted.
- If you have already submitted any of the information requested in Part E, you need not submit it again. Rather, provide the information requested in question E.4 for previously submitted information. If EPA methods were not used, report the reasons for using alternate methods. If test summaries are available that contain all of the information requested below, they may be submitted in place of Part E.

If no biomonitoring data is required, do not complete Part E. Refer to the Application Overview for directions on which other sections of the form to complete.

Indicate the number of whole effluent toxicity tests conducted in the past four and one-half years

N		y-and	
⊠ chronic  acute			
E.2. Individual Test Data. Com one column per test (where ea	plete the following chart <u>for each whole</u> ch species constitutes a test). Copy th	e effluent toxicity test conducted in the last four a is page if more than three tests are being reporte	nd one-half years. Allow ed.
See Attachment 2: Supporting	Technical Analysis (Appendi	x 1 , page A1-10) for results of all to	xicity tests. Test
re conducted by EPA-Regio	on 9 and methods, procedures	s, and QA/QC information is on file w	<u>/ith EPA.</u>
a. Test information.	•		
Test Species & test method number	sea urchin		
Age at initiation of test			
Outfall number	001		
Dates sample collected	20 Aug 2000 - 2 Feb 2004		
Date test started	13 tests conducted		
Duration			
b. Give toxicity test me	thods followed.		
Manual title	SOP1001		
Edition number and year of publication	EPA/660R-95/136		
Page number(s)		P	
c. Give the sample coll	lection method(s) used. For multiple gr	ab samples, indicate the number of grab sample	s used.
24-Hour composite	x		
Grab	,		
d. Indicate where the s	ample was taken in relation to disinfect	ion. (Check all that apply for each.	
Before disinfection	x		
*er disinfection			
ar dechlorination			

### TAFUNA WWTP - NPDES # AS0020010

		Test number:	Test number:	Test number:
e.	Describe the point in th	e treatment process at which the s	sample was collected.	
Sample was c	ollected:	Outlet Structure		
f.	For each test, include v	vhether the test was intended to a	ssess chronic toxicity, acute toxicity,	or both
Chronic toxicit	у	x		
Acute toxicity				
g.	Provide the type of test	performed.		
Static				
Static-renewal				
Flow-through				
h.	Source of dilution wate	r. If laboratory water, specify type	; if receiving water, specify source.	
Laboratory wa	ter			
Receiving wat	er	- 10		
i.	Type of dilution water.	If salt water, specify "natural" or ty	/pe of artificial sea salts or brine used	d.
Fresh water				
Salt water				
j.	Give the percentage ef	fluent used for all concentrations in	n the test series.	
		•		
k.	Parameters measured	during the test. (State whether pa	rameter meets test method specifica	ations)
рН		X		
Salinity		X		
Temperature		X		
Ammonia				
Dissolved oxy	gen	X		
I.	Test Results.			
Acute:			455	
	cent survival in 100% uent	%	%	%
LC <sub>5</sub>	0			
95%	6 C.I.	%	%	%
Cơn	itrol percent survival	%	%	%
	er (describe)			

### TAFUNA WWTP - NPDES # AS0020010

NOEC		%	%	%
IC <sub>25</sub>		%	%	%
Control	percent survival	%	%	%
Other (d	describe)			
m.	Quality Control/Quality As	surance.		
ference toxica	nnt data available?			
reference tox eptable bounds	cicant test within s?			
at date was ref (MM/DD/YYY)	ference toxicant test Y)?	1 1	1 1	1 1
er (describe)				
Toxicit	y Reduction Evaluation	Is the treatment works involve	ed in a Toxicity Reduction Evaluation	n?
· Yes	s ⊠ No If y	ves, describe:		
			——————————————————————————————————————	
	ary of Submitted Riome	onitoring Test Information.	If you have submitted biomonitoring	g test information, or information
regardin	ng the cause of toxicity, withing and a summary of the result		rs, provide the dates the information	was submitted to the permitting
regardin	ng the cause of toxicity, withing y and a summary of the resu			n was submitted to the permitting
regardin authority Date su	ng the cause of toxicity, withing y and a summary of the resu	// (MM/DD/YYYY)		n was submitted to the permitting