



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 REGION IX  
 75 Hawthorne Street  
 San Francisco, CA 94105

MAR 25 2011

In Reply Refer To: CWA-309(a)-11-003

Captain Peter S. Lynch  
 Commander NAVFAC Marianas  
 PSC 455, Box 195  
 FPO AP 96540-2937

**Re: Federal Facilities Compliance Agreement**

Dear Captain Lynch:

We are sending to you for your signature the enclosed Federal Facilities Compliance Agreement (“FFCA”) between the Navy and EPA for the Apra Harbor wastewater treatment plant. The FFCA takes effect upon your signature. It sets the following schedule of corrective actions for the Navy to complete in order to achieve consistent compliance with the NPDES permit.

KEY DATES	FFCA REQUIREMENTS CWA-309(a)-11-003
<b>Wastewater Infrastructure Upgrades</b>	
06/30/2011	28. Complete Phase I upgrades authorized under MILCON P-262.
09/30/2012	29. Complete Phase I upgrades authorized under MILCON P-534.
09/30/2013	30. Take actions toward obtaining FY14 funding for MILCON P-535.
09/30/2016	31. Complete the upgrades to be authorized under MILCON P-535.
<b>Sewer Discharge Certification Program</b>	
06/30/2011	32. Complete Fena WTP upgrades authorized under MILCON P-256. 33. Submit a revised Joint Region Marianas instruction for wastewater.
09/30/2011	34. Complete technical evaluations of existing treatment units. 35. Enact the revised Joint Region Marianas instruction. Submit a one-year schedule to issue all sewer discharge certificates.
10/01/2011	36. Begin implementation of the sewer discharge certification program.
<b>Pollutant Fate and Transport Study</b>	
09/30/2011	37. Identify and secure receiving water and sewer system sampling points
04/01/2011	38. Begin monthly monitoring of major non-domestic sources. 39. Begin monthly monitoring of treatment plant influent and effluent.
10/01/2011	38/39/40. Begin monthly monitoring of sewer system and receiving water locations.
<b>Reporting</b>	
1 <sup>st</sup> Q - 08/30/11	44. Quarterly status reports for Items 28-35 and 37 (due 02/28, 05/30, 08/30, 11/30).
1 <sup>st</sup> FY- 12/30/11	46. Annual Fiscal Year sewer discharge certification program reports (due 12/30).

This FFCA incorporates the Navy’s schedule of wastewater infrastructure upgrades with the final dates for the ongoing projects advanced a quarter for contingencies. The P-535 upgrades are

addressed in Items 30 and 31, which require re-submittal of the scoping document for FY14 funding, and completion of the upgrades by FY16. The uncertainty in funding is addressed in the standard language of Items 52-54, which has been incorporated into other FFCAs. The upgrades are expected to result in compliance with the removal rate limits for BOD and TSS.

The FFCA establishes schedules to implement a sewer discharge certification program similar to the one in effect at Pearl Harbor, and a self-monitoring program for a fate and transport study of aluminum, copper, and nickel. The self-monitoring program covers the key sources into the sewers, treatment plant influent and effluent, and zone-of-initial dilution and background receiving waters. The self-monitoring also covers oil & grease and pH as pollutant indicators. The sewer discharge certification program is expected to allow the Navy to demonstrate a level of control of the pollutant sources on par or better than the best municipal pretreatment programs. The fate and transport study should allow the Navy to document the trend and extent of impacts, if any, in the receiving waters by allowing statistically significant comparisons between the water quality at the zone-of-initial dilution boundaries and both Guam water quality standards and background.

This FFCA also establishes performance-based interim limits for aluminum, copper, nickel, and the removal rates for BOD and TSS. The interim limits were derived from a statistical analysis of the Apra Harbor wastewater treatment plant performance over the past two years, with the limits set at the normally distributed 95<sup>th</sup> percentile events. These interim limits would remain in effect until reissuance of the next NPDES permit.

Finally, the reporting proposed under this FFCA is limited and uncomplicated. First, two months after the end of each quarter, the Navy would submit a quarterly status report covering the progress made in completing the infrastructure upgrades, in establishing the sewer discharge certification program, and in defining the fate and transport study. The quarterly status reports would be due on February 28th, May 30th, August 30th, and November 30th. Second, three months after the end of each fiscal year, the Navy would submit an annual report covering the implementation of the sewer discharge certification program, and the self-monitoring required for the fate and transport study. The annual sewer discharge certification program report would be due on December 30th. It is expected that these requirements would be considered for incorporation into the next NPDES permit. Items 49-78 constitute FFCA boilerplate.

This FFCA only establishes a schedule of corrective actions for the Navy to complete, and the interim limits to be in effect until reissuance of the NPDES permit. EPA recognizes that the achievement of long-term compliance further requires the cooperative involvement of the Navy, EPA and Guam in establishing the terms of the next NPDES permit to be reissued by EPA. EPA expects the Navy to collect the data and prepare the analysis (e.g., pollutant fate and transport studies, mixing zone modeling, associated monitoring data, and Guam WQS EIS documents) necessary to support timely submittals of mixing zone requests to Guam EPA prior to permit reissuance. We urge the Navy to coordinate with Guam EPA in advance to identify the analysis and studies necessary to support future mixing zone applications. As part of the permitting process, EPA will assist Guam EPA in evaluating the data and analysis prepared by the Navy for mixing zone applications for the Apra Harbor discharge.

We would like to ask the Navy to send back to us for our records a copy of the signed signature page. If you have any questions regarding this matter, please contact Greg V. Arthur of my staff at (415) 972-3504 or at [arthur.greg@epa.gov](mailto:arthur.greg@epa.gov).

Sincerely,

  
Alexis Strauss 25 March 2011  
Director, Water Division

Enclosure

cc: Ivan Quinata, Guam EPA

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**FEDERAL FACILITY COMPLIANCE AGREEMENT  
BETWEEN THE UNITED STATES NAVY  
AND THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

In the Matter of	)	
	)	FEDERAL FACILITIES
United States Navy	)	
Apra Harbor Wastewater Treatment Plant,	)	COMPLIANCE AGREEMENT
The Contributing Sewer Collection System, and	)	
The Sewer Service Area Non-Domestic Sources	)	Docket No. CWA-309(a)-11-003
	)	
NPDES Permit No. GU0110019	)	

**I. JURISDICTION**

1. The United States Environmental Protection Agency, Region 9 ("EPA") and the United States Navy ("Navy") enter into this Federal Facilities Compliance Agreement ("FFCA") pursuant to the Clean Water Act, 33 U.S.C. §§ 1251-1387 and Executive Order No. 12088, in order to cause the Navy to achieve and maintain full compliance with all applicable Federal, state, and local laws, and regulations governing the discharge of pollutants into waters of the United States from the Apra Harbor wastewater treatment plant, its sewer collection system, and its service area non-domestic wastewater sources, as required by Sections 301 and 402 of the Clean Water Act, 33 U.S.C. §§ 1311 and 1342.

**II. PARTIES**

2. The parties to this FFCA are the EPA and the Navy.
3. United States Navy officers, agents, contractors, servants, employees, successors, assigns, and all persons, departments, agencies, firms, and corporations in active concert or participation with them will take the necessary steps to ensure compliance with the provisions of this FFCA.
4. The United States Navy shall give written notice of this FFCA to any prospective successor in interest. The Navy shall also give written notice to EPA at least ninety (90) calendar days prior to any transference of ownership or operation of the Apra Harbor wastewater treatment plant, the sewer collection system, the service area non-domestic wastewater sources, or any portions thereof.
5. The undersigned representatives of the EPA and the Navy certify that they are fully authorized to enter into the terms and conditions of the FFCA and to execute and legally bind the parties of this FFCA to it.

### III. FINDINGS OF FACT AND CONCLUSIONS OF LAW

#### *Wastewater Discharge Requirements*

6. NPDES Permit GU0110091 for the Apra Harbor wastewater treatment plant was reissued on April 8, 2010 to become effective on June 1, 2010, and to expire on May 30, 2015. The previous version of the permit became effective on April 16, 2001 and expired on April 15, 2006. The previous version remained in effect until reissuance by administrative extension since the Navy submitted an application for permit renewal more than 180 days before the expiration date.
7. NPDES permit GU0110091 sets effluent limits for the effluent discharge from the Apra Harbor wastewater treatment plant into the ocean outfall for the following pollutants.

NPDES Permit Limits Part I(A) @ NPDES-001	Concentrations				Loadings (lbs/d)		
	mo-avg	wk-avg	d-max	instant	mo-avg	wk-avg	d-max
BOD (mg/l)	30	45	-	-	1076	1614	-
TSS (mg/l)	30	45	-	-	1076	1614	-
oil & grease (mg/l)	10	-	15	-	360	-	540
BOD removal rate (%)	85%	-	-	-	-	-	-
TSS removal rate (%)	85%	-	-	-	-	-	-
residual-Cl (mg/l)	7.5	-	12.3	-	0.269	-	0.442
enterococci (#/100ml)	35	-	-	104	-	-	-
fecal coliform (#/100ml)	200	400	-	-	-	-	-
copper (µg/l)	2.9	-	4.8	-	0.105	-	0.17
nickel (µg/l)	8.2	-	13.0	-	0.29	-	0.48
aluminum (µg/l)	120	-	200	-	4.30	-	7.17
pH (s.u.)	-	-	-	6.5-8.5	-	-	-
monitoring only	flow rate, priority pollutants, total ammonia, chronic toxicity						
changes from 2001 permit	enterococci d-max raised from 57 to 104; zinc limits eliminated						

8. The Naval Base Guam qualifies for storm water regulation under the requirements of the 2008 Multi-Sector General Permit ("MSGP") for industrial activities (MSGP ID No. GUR05A211). The Naval Base Guam also qualifies for storm water regulation under the requirements of the 2008 Construction General Permit ("CGP") for construction activities (CGP ID numbers assigned per project).

#### *Background*

9. On November 24, 2008, EPA issued a Finding of Violation (CWA 309(a)-09-002) covering the discharge from the Apra Harbor wastewater treatment plant and the storm water management at the Naval Base Guam. The findings were based on a July 16-17, 2008 EPA multi-media inspection of the Naval Base Guam and the Guam Shipyard, as well as on subsequent submittals by the Navy. For the Apra Harbor wastewater treatment plant, the

2008 EPA Finding of Violation cited on-going permit violations for copper, nickel, aluminum, BOD percent removal, and TSS percent removal, as well as occasional violations for enterococci, zinc, and residual chlorine. For storm water, the Finding of Violation cited deficiencies in the Navy's storm water pollution prevention plans for industrial activities in violation of the 2000 MSGP, and for construction activities in violation of the 2003 CGP.

10. April 26-30, 2010 and May 6-7, 2010, EPA conducted an NPDES compliance evaluation inspection of the military and industrial installations in the service area of the Apra Harbor wastewater treatment plant. The inspection included the following:
  - The on-site inspection of the Apra Harbor wastewater treatment plant;
  - On-site inspections of the industrial activities contributing to the Apra Harbor sewers;
  - On-site inspections of the wharf and shipyard industrial activities for storm water;
  - Review of Navy Region Marianas instruction 5090.3A for the wastewater pollutant minimization and pretreatment program;
  - Review of 2008-2010 influent and effluent data for the Apra Harbor WWTP;
  - Review of the 2010 NAVFAC Compliance Strategy Report (SSR-3450-ENV).
11. EPA issued two reports for the April 26-30 and May 6-7, 2010 inspection. The September 7, 2010 report covers the findings pertaining to the Apra Harbor wastewater treatment plant, the contributing sewer system, and the service area sources within the Naval Base Guam and the Guam Shipyard. The October 25, 2010 report covers the findings pertaining to storm water management.
12. All findings of fact cited in this FFCA between EPA and the Navy are documented in the September 7, 2010 and October 25, 2010 EPA inspection reports.

#### *Facility Description*

13. The sewer service area of the Apra Harbor wastewater treatment plant comprises the Naval Base Guam and the Guam Shipyard. Both installations generate domestic sewage, non-domestic wastewaters, and CHT ships sanitary for collection into the domestic sewer system and discharge from the Apra Harbor wastewater treatment plant to the Pacific Ocean. The numerous non-domestic internal sources include three bilge oily wastewater treatment units, a fuel reclamation unit, and a water treatment plant.
14. The Apra Harbor wastewater treatment plant is a secondary sewage treatment plant with rated design and peak capacities of 4.3 mgd and 6.0 mgd. Dry-weather influent averages 2.3 mgd. Two identical treatment trains provide pre-aeration, grit removal, primary sedimentation, trickling filter biotreatment, activated sludge solids contact, and secondary clarification. Each treatment train has a 4.3 mgd design capacity. The final effluent is disinfected and de-chlorinated prior to discharge through a deep-water ocean outfall. Wastewater from the Guam Waterworks Authority secondary sewage treatment plant in Agat also discharges through the same deep-water ocean outfall. At Apra Harbor, waste activated sludge and DAF-thickened primary sludge feed two anaerobic digesters. Digested

sludge is centrifuged or dried in sludge drying beds. Grit and dewatered sludges are trucked off-site for landfill disposal.

15. The Apra Harbor wastewater treatment plant collection system involves gravity sewer lines, force mains, and lift stations located on the Naval Base Guam and the Guam Shipyard. The Navy maintains ownership of the collection system. The Navy operates the collection system on the Naval Base Guam and has conferred, by lease to the Guam Shipyard, the responsibility to operate the sewer system serving the shipyard. In 2009, the Navy completed a condition and capacity assessment, which verified the deteriorated condition of much of the collection system.
16. The 2010 EPA inspection added a partial documentation of the condition of the CHT ships sanitary risers into the collection system. The CHT risers operated by the Guam Shipyard included some found to be disabled or functioning in near disrepair, and some functioning in good condition. Nearly all CHT risers operated by the Naval Base Guam were found functioning in good condition, with just a few on one wharf found disabled.

#### *Compliance Status*

17. From January 2008 to March 2010, the discharge from the Apra Harbor wastewater treatment plant continued to consistently exceed the NPDES permit limits for BOD and TSS removal rates, copper, nickel, and aluminum, and on occasion to exceed the limits for enterococci, fecal coliform, residual chlorine, and BOD concentrations. The discharge consistently complied with the limits for TSS concentrations, BOD and TSS loadings, and pH. The compliance status is further described in Items 18-22 below.
18. The Apra Harbor wastewater treatment plant produces secondary-treated wastewater. From January 2008 to March 2010, there were no violations of the NPDES permit limits for TSS, a single violation of the weekly permit limits for BOD, and four monthly-average violations for BOD occurring in one five month period. However, the influent arrives weaker than typical domestic sewage. As a result, the BOD and TSS removal rates average just 67% and 84%, respectively, with either or both falling below the 85% NPDES permit limits in nearly every month.
19. From January 2008 to March 2010, the discharge for the most part complied with the NPDES permit limits for enterococci, fecal coliform, and residual chlorine. The NPDES permit does not set effluent limits for nutrients although there are receiving water standards for nutrients. Ammonia toxicity is not expected since the effluent monitoring shows ammonia at levels much lower than typical secondary treated sewage, and more consistent with nitrification even though the treatment plant is not designed to provide it.
20. The Navy identified excess alum dosing into the drinking water and the discharge of residuals from the Fena water treatment plant as the likely principal sources of aluminum into the Apra Harbor sewers. The Navy installed a solids removal system to limit residuals discharge from Fena to belt filter press filtrate which dropped effluent aluminum

concentration by more than 50%. EPA identified the likely remaining sources to be excess alum dosing into the drinking water supply, and possibly CHT ships sanitary, the demineralizer plant, and anodic protection.

21. The Navy identified corrosion of the drinking water distribution pipes and fixtures as the likely principle source of copper into the Apra Harbor sewers. The Navy has funded the installation of a corrosion control unit at the Fena water treatment plant. EPA identified numerous smaller sources of copper including CHT ships sanitary, the three bilge oily wastewater treatment units, the FISC fuel reclamation unit, heat exchanger coil and cooling tower corrosion, and vehicle maintenance shops.
22. The Navy identified internal corrosion of the stainless steel CHT systems on-board ships as the likely principle source of nickel. EPA identified no other likely significant sources.
23. In response to the 2008 EPA Finding of Violation, under military contract MILCON P-262, the Navy began upgrading and rehabilitating the Apra Harbor wastewater treatment plant, the Fena water treatment plant, and critical portions of the collection system. In addition, under MILCON P-534 the Navy began the Phase I recapitalization of portions of the sewer system to increase capacity, and to reduce infiltration and inflow within the Naval Base Guam and the Guam Shipyard. Further upgrades will cover additional lift station replacements, sewer line replacements, manhole rehabilitation and replacements, and other projects. The sewer collection system recapitalization, under MILCON P-535 is not funded yet.
24. In response to the 2008 EPA Finding of Violation, on December 31, 2008 and on May 5, 2009, the Navy submitted new Notices of Intent ("NOI") for the Naval Base Guam covering all eight identified MSGP industrial sectors including Sector R for vessel repair activities. The Navy also submitted a revised storm water pollution prevention plan ("SWPPP") on January 2, 2009, certified by the Commanding Officer, now incorporating Sector R related BMPs, and including updated facility maps and text. The Navy also delivered the SWPPP to the Apra Harbor wastewater treatment plant and verified that the operators understood the plan. Finally, in a January 15, 2009 submittal, the Navy also committed to institute and monitor the use of drip pans at the motor pool maintenance shop.
25. In response to the 2008 EPA Finding of Violation, in November 2008, the Navy hired an environmental engineer to ensure CGP compliance, including the oversight of the submittal of NOIs, the review of contractor SWPPPs, and the training of construction management and contract management personnel. The Navy now files NOIs for coverage along with the construction site contractors, and has committed to ensure all NOIs are filed prior to project start-ups. The Navy also developed a detailed inspection checklist to be used by the construction management personnel. Specific deficiencies at three inspected construction sites were also addressed through the implementation of erosion controls, soil stabilization, and drain inlet controls.



#### IV. COMPLIANCE PROGRAM

26. Taking these Findings into consideration, EPA has determined that the deterioration of the wastewater collection system and treatment plant compromises secondary treatment, with infiltration and inflow detrimentally effecting removal rates, sewer system failures causing spills, and equipment failures impairing operations. The Navy is addressing the NPDES permit non-compliance related to infrastructure deterioration through a number of necessary upgrades to repair, rehabilitate, and replace deteriorated portions of the treatment plant and the collection system. These infrastructure upgrades either have started or have been proposed by the Navy under MILCON Projects P-262, P-534, and P-535.
27. Also taking these Findings into consideration, EPA has determined that compliance with current NPDES permit limits for metals would remain unattainable even with secondary treatment and best available technology treatment at all internal sources. The permit established aluminum, copper, and nickel limits based on Guam's water quality standards as "criteria end of pipe" without consideration of a zone-of-initial-dilution adjustment for the ocean outfall. The Navy is partially addressing non-compliance through improved source controls, in particular involving water treatment plant upgrades under MILCON Project P-256. EPA expects resolution will involve (1) a source control program, and (2) a fate and transport study for aluminum, copper, and nickel to support mixing zone applications for consideration in the next NPDES permit.

##### *Wastewater Infrastructure Upgrades*

28. By **JUNE 30, 2011**, The Navy shall complete the Phase I upgrades to the wastewater treatment plant and the main sewer pump station as authorized under MILCON P-262. These MILCON P-262 upgrades include the following:
- a. Replacement of the drive mechanism in secondary clarifier No.1;
  - b. Replacement of the skimmer rake in secondary clarifier No.2;
  - c. Leveling of the weirs in both secondary clarifiers;
  - d. Rehabilitation of the DAF sludge thickener;
  - e. Replacement of the headworks with travelling bar screens;
  - f. Installation of separate influent and effluent pump stations;
  - g. Replacement of the grit augers and grit chamber diffusers;
  - h. Replacement of the trickling filter recirculation pumps;
  - i. Replacement of disinfection with Miox on-site bleach generation disinfection;
  - j. Replacement of de-chlorination with sodium metabisulfite dechlorination;
  - k. Installation of SCADA systems for the wastewater treatment plant;
  - l. Replacement of the main collection system pump station SPS-16;
  - m. Installation of a SCADA system for pump station SPS-16.
29. By **SEPTEMBER 30, 2012**, before the end of Fiscal Year 2012, the Navy shall complete the Phase I upgrades to construct, replace, clean, or rehabilitate sewer lines, relief sewers,

pump stations, manholes, and force mains throughout the sewer service area, as authorized under MILCON P-534. These MILCON P-534 upgrades include the following:

- a. Installation of parallel relief sewers for Gravity Lines A-1, A-2, B-1, and B-2;
- b. Replacement of pump stations SPS-10, SPS-14, SPS-15, SPS-18, and SPS-22;
- c. Rehabilitation of pump station SPS-7;
- d. Replacement of the CHT risers at Victor Wharf and connection to SPS-22;
- e. Replacement of the SPS-18 force main and Gravity Line D from pump station SPS-18 to the main collection system pump station SPS-16;
- f. Installation of SCADA systems for pump stations SPS-10, SPS-18, and SPS-22;
- g. Replacement of the Delta Echo force main from the Tank Farm to Polaris Point;
- h. Installation of in-line comminution at pump station SPS-18;
- i. Replacement of the P-534 gravity lines, force mains, manholes, and pump stations;
- j. Replacement or rehabilitation of all other deteriorated CHT risers.

MILCONs P-534 and P-535		P-534 Upgrades	P-535 Upgrades	No Action
Pipe	Replace or Rehab	13,761 feet	23,713 feet at a minimum	5,218 feet
	Heavy Cleaning	8,558 feet	2,504 feet at a minimum	
Manhole	Replace or Rehab	213 manholes	284 manholes at a minimum	116 manholes
	Minor Rehab	23 manholes	109 manholes at a minimum	
Naval Base Guam 2009 Sanitary Sewer Evaluation Survey, Parsons Engineering				

30. By **SEPTEMBER 30, 2013**, before the end of Fiscal Year 2013, the Navy shall resubmit a scoping document for Fiscal Year 2014 funding to cover the upgrades to replace, rehabilitate, or clean the sewer lines, manholes, relief sewers, and force mains throughout the sewer service area, under MILCON P-535.
31. By **SEPTEMBER 30, 2016**, before the end of Fiscal Year 2016, the Navy shall complete the P-535 upgrades, as authorized under MILCON P-535.

*Sewer Discharge Certification Program*

32. By **JUNE 30, 2011**, the Navy shall complete the installation of a corrosion inhibitor chemical injection facility at the Fena water treatment plant in order to reduce the domestic leaching of metals, as authorized under MILCON P-256.
33. By **JUNE 30, 2011**, the Navy shall develop and submit a revised Joint Region Marianas instruction establishing (1) internal wastewater discharge limits for non-domestic sewer discharges, and (2) a sewer discharge certification program covering all non-domestic sources within the sewer service area of the Apra Harbor wastewater treatment plant. This revised Joint Region Mariana instruction shall include the following:
  - a. The authority to implement the instruction throughout the sewer service area;
  - b. A survey identifying the inventory of non-domestic sewer discharges;

- c. Procedures to annually update the inventory of non-domestic sewer discharges;
  - d. Procedures to issue, modify, reissue, and rescind certificates for non-domestic discharges into the sewers;
  - e. Determinations of pollutant limits for non-domestic discharges into the sewers;
  - f. Determinations of the best available treatment ("BAT") technology or equivalence for each sewer discharge certificate discharge;
  - g. Determinations of any necessary best management practices, including the use of drain covers at sources of inflow into the sewers during storm events;
  - h. Identification of certificate sampling points;
  - i. Procedures to inspect each certificate non-domestic source at least annually;
  - j. Procedures to prepare a fiscal year annual report for submittal by December 30.
34. By **SEPTEMBER 30, 2011**, the Navy shall evaluate the following existing treatment units for (1) pollutants of concern, (2) treatability, and (3) treatment unit efficiency:
- a. Victor Wharf Bilge Oily Wastewater Treatment System;
  - b. FISC Fuel Recovery System;
  - c. Papa Wharf Oil Water Separator.
35. By **SEPTEMBER 30, 2011**, before the end of Fiscal Year 2011, the Navy shall submit a final, signed, and enacted Joint Region Marianas instruction, as set forth in Item 33 above, for the Apra Harbor wastewater treatment plant. This submittal shall also include a schedule not to exceed one-year for the issuance of all sewer discharge certificates.
36. **BEGINNING IN FISCAL YEAR 2012**, from October 1, 2011 through reissuance of the NPDES permit, the Navy shall implement the sewer discharge certification program authorized under the revised Joint Region Marianas instruction. The certificates should describe the allowable discharges, and specify the terms of discharge including applicable effluent limits, monitoring requirements, sampling points, prohibited discharges, and discharge restrictions.

*Pollutant Fate and Transport Study*

37. By **SEPTEMBER 30, 2011**, the Navy shall identify, secure access to, and establish the following receiving water and sewer system sampling locations:
- a. Receiving water sites that represent the zone-of-initial-dilution boundaries;
  - b. At least three Tupalao Bay background sites not impacted by the ocean outfall;
  - c. One Polaris Point pump station that initially receives CHT ships sanitary;
  - d. One Point Orote pump station that initially receives CHT ships sanitary.

This FFCA does not require the Navy to establish sampling of the contributing discharges from the Agat sewage treatment plant, although sample results for Agat are needed in order to account for all sources discharged through the joint deep-water outfall into Tupalao Bay.

38. **ONCE EACH MONTH** from April 1, 2011 through reissuance of the NPDES permit, the Navy shall self-monitor the following non-domestic wastewater discharges in and into the sewers for aluminum, copper, nickel, oil & grease, pH, and discharge flow rate:
- a. Victor Wharf Bilge Oily Wastewater Treatment System (IWD-101);
  - b. Polaris Point Bilge Oily Wastewater Treatment System (IWD-102);
  - c. FISC Fuel Reclamation System (IWD-103);
  - d. Papa Wharf Oil Water Separator (IWD-202);
  - e. Fena Water Treatment Plant (IWD-104);
  - f. Bldg 4907 Demineralizer Plant (IWD-109);
  - g. After September 30, 2011, the Polaris Point pump station identified in Item 37(c);
  - h. After September 30, 2011, the Point Orote pump station identified in Item 37(d).

The IWD numbers listed here are the compliance sampling point designations made by EPA in the September 7, 2010 EPA inspection report for the Apra Harbor wastewater treatment plant. Discharge flow rates can be engineering estimates.

39. **ONCE EACH MONTH** from April 1, 2011 through reissuance of the NPDES permit, the Navy shall self-monitor the following treatment plant locations for aluminum, copper, nickel, oil & grease, pH, and discharge flow rate:
- a. Apra Harbor wastewater treatment plant influent;
  - b. Apra Harbor wastewater treatment plant effluent;
40. **ONCE EACH MONTH** from October 1, 2011 through reissuance of the NPDES permit, the Navy shall self-monitor the receiving water locations as identified in Item 37(a) and 37(b) above for aluminum, copper, and nickel.
41. The Navy shall self-monitor and analyze using the sampling protocols listed below, and the EPA approved analytical methods in 40 CFR 136 (or equivalent) necessary to achieve the detection limits indicated below:

Parameters and Pollutants	Sampling Method Protocols	Detection Limits
oil and grease – total	grab	1 mg/l
pH (s.u.)	field grab measurement	0.1 s.u.
total aluminum	24hr-composite at WWTPs / grabs otherwise	1 µg/l
total copper	24hr-composite at WWTPs / grabs otherwise	1 µg/l
total nickel	24hr-composite at WWTPs / grabs otherwise	1 µg/l
discharge flow rate	engineering estimates or flow metering	100 gal/day

42. For each sample and measurement, the Navy shall record the following:
- a. the sample or measurement results,
  - b. the EPA analytical methods used,

- c. the date, and time of sampling, and sampling point,
- d. the type of sample (ie. 24-hour composite, grab, or manual composite), and
- e. the name of the laboratory used.

*Interim Limits*

43. Upon issuance of this FFCA through the reissuance of the next NPDES permit, the Navy shall comply with the following interim limits for copper, nickel, aluminum, and the removal rates for BOD and TSS.

FFCA Interim Limits @ NPDES-001	Concentrations				Loadings (lbs/d)		
	mo-avg	wk-avg	d-max	instant	mo-avg	wk-avg	d-max
BOD removal rate (%)	50%	-	-	-	-	-	-
TSS removal rate (%)	65%	-	-	-	-	-	-
copper (µg/l)	6.8	-	11.2	-	0.25	-	0.40
nickel (µg/l)	8.9	-	14.1	-	0.32	-	0.52
aluminum (µg/l)	280	-	460	-	6.0	-	16.5

Daily-maximum limits are comparable to single sample results. Monthly-average limits are comparable to an average of four or more results for samples collected in a calendar month.

**V. REPORTING AND SUBMITTALS**

*Quarterly Status Reports*

44. **WITHIN TWO MONTHS** after the end of a quarter through reissuance of the NPDES permit, the Navy shall submit a written quarterly status report that documents the status of the work required under the following nine items:
- a. Item 28 - Phase I upgrades authorized under MILCON P-262;
  - b. Item 29 - Phase I upgrades authorized under MILCON P-534;
  - c. Item 30 - Actions toward obtaining FY14 funding for MILCON P-535;
  - d. Item 31 - The upgrades to be authorized under MILCON P-535;
  - e. Item 32 - Fena water treatment plant upgrades authorized under MILCON P-256;
  - f. Item 33 - Development of a revised Joint Region Marianas instruction;
  - g. Item 34 - Technical evaluation of existing treatment units;
  - h. Item 35 - The enacting of the revised Joint Region Marianas instruction and the one-year schedule to issue all sewer discharge certificates;
  - i. Item 37 - Establishment of receiving water and sewer system sampling locations.
45. The quarterly status reports shall also contain any Notices to Proceed and Notices of Completion issued during the quarter. First quarter status reports for October to December will be due on February 28th. Second quarter reports for January to March will be due on

May 30th. Third quarter reports for April to June will be due on August 30th. Fourth quarter reports for July to September will be due on November 30th.

*Annual Sewer Discharge Certification Program Reports*

46. **WITHIN THREE MONTHS** after the end of a fiscal year through reissuance of the NPDES permit, the Navy shall submit a written annual report that documents the pollutant control activities accomplished during the fiscal year, as required by Items 32-42 above. The annual report shall include the following:
- a. Self-monitoring results for the non-domestic discharges as required by Item 38;
  - b. Self-monitoring results for the sewer system locations as required by Item 39;
  - c. Self-monitoring results for the receiving water locations as required by Item 40;
  - d. Current inventory of certificate discharges into the sewer system;
  - e. The pretreatment in place and discharge flow rate for each certificate discharge;
  - f. A copy or summary of each sewer discharge certificate;
  - g. Any self-monitoring results generated by the sewer discharge certificates;
  - h. Inspections conducted of the certificate discharges.
47. Annual reports for the sewer discharge certification program activities during the fiscal year will be due December 30th. The first annual report for Fiscal Year 2011 will be due on December 30, 2011.

*General Requirements for Submittals*

48. Unless specified otherwise, when written notification to or communication with EPA is required by the terms of this FFCA, it shall be addressed as follows, with a courtesy copy to Guam EPA:
- |                                 |                       |
|---------------------------------|-----------------------|
| US EPA, Region 9                | Guam EPA              |
| 75 Hawthorne Street (WTR-7)     | P.O. Box 22439        |
| San Francisco, California 94105 | Barrigada, Guam 96921 |
| Attn: Greg V. Arthur            | Attn: Ivan Quinata    |
49. Each notification or communication to EPA required by this FFCA shall be deemed submitted on the date it is postmarked, and shall be sent by certified mail, return receipt requested. The Navy shall maintain records of each notification or communication, together with proof of mailing by certified mail, for the duration of this FFCA.
50. All submittals provided pursuant to this FFCA shall be signed by a duly authorized representative of the Navy who has personal knowledge of the contents. Each submittal shall be admissible as evidence in any proceeding to enforce this FFCA. Each submittal shall include the following certification:

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that all wastewater samples analyzed and reported herein are representative of the ordinary process wastewater flow from this facility. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

51. Notification to EPA of any non-compliance with any provision of this FFCA or anticipated delay in performing any obligation under this FFCA shall not excuse the Navy's non-compliance or anticipated delay.

## **VI. FUNDING**

52. It is the expectation of the Parties to this FFCA that all obligations of the Navy arising under this FFCA, including any environmentally beneficial projects required, will be fully funded. The Navy agrees to use every legally available mechanism to seek sufficient funding through the Navy budgetary process to fulfill its obligations under the FFCA.
53. Provisions herein shall not be interpreted to require obligations or payment of funds in violations of the Anti-Deficiency Act, 31 U.S.C. §1341. In cases where payment or obligation of funds would constitute a violation of the Anti-Deficiency Act, the dates established requiring the payment or obligations of such funds shall be appropriately adjusted within the terms delineated in this FFCA.
54. If funds are not available to fulfill the Navy's obligations under this FFCA, EPA reserves the right to initiate an action against any other person, or to take any action which would be appropriate absent this agreement.

## **VII. DISPUTE RESOLUTION**

55. In the event of any conflict involving violations of this FFCA, EPA and the Navy shall meet promptly and work in good faith in an effort to reach a mutually agreeable resolution of the dispute.
56. Except as specifically set forth elsewhere in this FFCA, if a dispute arises under this FFCA, the procedures of this Section shall apply. In addition, during the pendency of any dispute, the Navy agrees that it shall continue to implement those portions of this FFCA which are not in dispute.

57. The pendency of any dispute under this Section shall not affect the Navy's responsibility to perform the work required by this FFCA in a timely manner, except that the time period for completion of work affected by such dispute may, at EPA's sole discretion, be extended for a period of time not to exceed the actual time taken to resolve any good faith dispute in accordance with the procedures specified herein. All elements of the work required by this FFCA which are not affected by the dispute shall continue and be completed in accordance with the applicable schedules.
58. The Parties to this FFCA shall make reasonable efforts to informally resolve disputes at the Project Manager or immediate supervisor level. With respect to EPA, "Project Manager" means an Environmental Engineer of the Clean Water Act Compliance Office, or any duly identified successor. With respect to the Navy, "Project Manager" means EV1 Environmental Compliance Engineer, or any duly identified successor.
59. Within fourteen (14) days after any action which leads to or generates a dispute, the Navy shall submit to EPA a written statement of dispute setting forth the nature of the dispute, the Navy's position with respect to the dispute, and the information the Navy is relying upon to support its position. If the Navy does not provide such written statements to EPA within this fourteen (14) day period, the Navy shall be deemed to have agreed with EPA's position with respect to the dispute.
60. Upon EPA's receipt of the written statement of dispute from the Navy, the Parties shall engage in dispute resolution among the Project Managers and/or their immediate supervisors. The Parties shall have fourteen (14) days from the receipt by EPA of the written statement of dispute to resolve the dispute. During this period, the Project Managers shall meet or confer as many times as necessary to discuss and attempt resolution of the dispute. If agreement cannot be reached on any issue within this fourteen (14) day period, the Navy may, within ten (10) days after the conclusion of the fourteen (14) day dispute resolution period, submit a written notice to EPA elevating the dispute to the Dispute Resolution Committee ("DRC") for resolution. If the Navy does not elevate the dispute to the DRC within this ten (10) day period, the Navy shall be deemed to have agreed with EPA's position with respect to the dispute.
61. The DRC will serve as a forum for resolution of disputes for which agreement has not been reached pursuant to the foregoing paragraphs in this Section. Following elevation of a dispute to the DRC, the DRC shall have thirty (30) days to unanimously resolve the dispute. EPA designated representative on the DRC is the Water Division Director. The Navy's designated representative on the DRC is the Commanding Officer, Naval Facilities Marianas. Delegation of the authority from a Party's representative on the DRC to an alternate shall be provided to the other Party with seven (7) days of delegation.
62. If unanimous resolution by the DRC is not achieved within this thirty (30) day period, a member of the DRC may, within twenty-one (21) days after the conclusion of the thirty (30) day dispute resolution period, submit a written Notice of Dispute to the Regional Administrator of EPA Region 9 for final resolution of the dispute. In the event that the dispute is not elevated to the Regional Administrator of EPA Region 9 within the designated



twenty-one (21) day period, the Navy shall be deemed to have agreed with the original EPA position with respect to the dispute.

63. Within twenty-one (21) days of the resolution of a dispute pursuant to the procedures specified in this Section, the Navy shall incorporate the resolution and final determination into the appropriate state of work, plan, schedule, or procedures and proceed to implement this FFCA according to the amended statement of work, plan, schedule, or procedures.
64. Resolution of a dispute pursuant to this Section of the FFCA constitutes a final resolution of any dispute arising under this FFCA. The Parties shall abide by all terms and conditions of any final resolution of dispute obtained pursuant to this Section of the FFCA.

### **VIII. FORCE MAJEURE**

65. The Navy's obligations under the Compliance Program Section of this FFCA shall be performed as set forth in this FFCA unless performance is prevented or delayed by a force majeure event. For the purposes of this FFCA, "force majeure" is defined as any event arising from causes beyond the control of the Navy or of entities controlled by the Navy, including but not limited to contractors and subcontractors, which could not be overcome by the due diligence of the Navy or the entities controlled by the Navy, which delays or prevents the performance of any obligation under this FFCA, including acts of God or war, labor unrest, and any judicial orders which prevent compliance with the provisions of this FFCA. Force majeure shall not include increased costs of performance of any activity required by this FFCA or the failure to apply for any required permits or approvals or to provide all required information in a timely manner, nor shall it include the failure of contractors or employees to perform or the avoidable malfunction of equipment.
66. If the Navy is having difficulty meeting its obligations as set forth in the FFCA due to a force majeure event, it shall notify EPA promptly by telephone of any change in circumstances giving rise to the suspension of performance or the non-performance of any obligation under this FFCA. In addition, within fourteen (14) days of the occurrence of circumstances causing such difficulty, it shall provide a written statement to EPA of the reason(s), the anticipated duration of the event and delay, the measures taken and to be taken to prevent or minimize the time and effects of failing to perform or delaying any obligation, and the timetable for the implementation of such measures. Failure to comply with the notice provisions shall constitute a waiver of any claims of force majeure.
67. The burden of proving that any delay is caused by circumstances entirely beyond the control of the Navy shall rest with the Navy.

### **IX. MODIFICATIONS**

68. The requirements, timetables, and deadlines under this FFCA may be modified upon receipt of a timely request for modification and when good cause exists for the requested

modification. Any request for modification by the Navy shall be submitted in writing and shall specify: the requirement, timetable, or deadline for which a modification is sought; the length of the extension sought, the good cause for the extension, and any related requirement, timetable, deadline or schedule that would be affected if the extension were granted.

69. Good cause exists for a modification when sought in regard to: a force majeure; a delay caused, or which is likely to be caused, by the grant of an extension in regard to another timetable and deadline or schedule; a delay caused by failure of a regulator agency to perform its duties in a timely manner where regulatory action is necessary to proceed with construction and where the Navy has made a timely and complete request for action from the regulatory agency; and any other event or series of events that the Parties mutually agree constitutes good cause.
70. Within twenty-one (21) calendar days of receipt of a request for a modification, EPA shall advise the Navy of its position on the request. If EPA does not concur in the extension, it shall include in its statement of non-concurrence an explanation of the basis for its position.


#### **X. GENERAL PROVISIONS**

71. Compliance with the terms of this FFCA in no way affects or relieves the Navy of its obligation to comply with all applicable requirements of the Act and regulations promulgated thereunder, or other applicable requirements of Federal, state, or local law.
72. This FFCA is not and shall not be interpreted to be an NPDES permit under Section 402 of the Act, 33 U.S.C §1342, nor shall it relieve the Navy of any obligation to apply for, obtain, and comply with the existing NPDES permit GU0110091 for the Apra Harbor wastewater treatment plant.
73. EPA, its contractors, and other authorized representative shall have the right to enter the Apra Harbor wastewater treatment plant and its sewer service area to conduct any inspection, including but not limited to records inspection, sample testing, or monitoring they believe is necessary to determine the Navy's compliance with this FFCA.
74. This FFCA was negotiated and executed by the Parties in good faith to ensure compliance with the law. No part of this FFCA constitutes or should be interpreted or construed as an admission of the fact or of liability under Federal, state, or local laws, regulations, ordinances, or common law. By entering into this FFCA, the Navy does not waive, other than as to the enforcement of this FFCA pursuant to the terms contained herein, any claim, right, or defense that it might raise in any other proceeding or action.
75. If any provision of this FFCA or the applications of this FFCA to any party or circumstance is held by any judicial or administrative authority to be invalid, the application of such provisions to other parties or circumstances and the remainder of the FFCA shall remain in force and shall not be affected thereby.

76. In computing any period of time described as 'days' herein, all references to "days" refer to "calendar days". The last day of a time period shall be included, unless it is a Saturday, a Sunday, or a legal holiday, in which event the period runs until the end of the next day that is not a Saturday, a Sunday, or a legal holiday.
77. The effective date of this FFCA shall be the date on which it is signed by the last signatory. The FFCA shall be effective if signed in counterparts.
78. This FFCA shall terminate once the Navy has met all of its obligations herein, as determined by mutual consent of the Parties and evidenced in writing.

  
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Alexis Strauss  
Director, Water Division, EPA Region 9

25 March 2011  
Dated

  
\_\_\_\_\_  
Captain Peter S. Lynch  
Commander NAVFAC Marianas

31 March 2011  
Dated