

US EPA ARCHIVE DOCUMENT

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

IN THE MATTER OF:)	Docket No.: CWA 309(a)-10-024
)	
GUAM POWER AUTHORITY)	
Cabras Power Plant)	
)	FINDINGS OF VIOLATION
)	AND
)	ORDER FOR COMPLIANCE
)	
NPDES Permit No. GU0020001)	
)	Proceeding under Sections 308(a)
)	and 309(a) of the Clean Water Act
)	33 U.S.C. §§ 1318 and 1319(a)

STATUTORY AUTHORITY

The following Findings of Violation are made and Order for Compliance issued pursuant to the authority vested in the Administrator of the United States Environmental Protection Agency (EPA) under Sections 308(a) and 309(a) of the Clean Water Act (Act), as amended, 33 U.S.C. §§1318(a) and 1319(a). The Administrator has delegated these authorities to the Regional Administrator of EPA, Region IX, who has in turn delegated them to the Director of the Water Division of EPA, Region IX.

FINDINGS OF VIOLATION

On the basis of the following facts, the Director finds that Guam Power Authority (“GPA”) is in violation of Section 301(a) of the Act, 33 U.S.C. §§ 1311(a).

- 1) Under section 301(a) of the Act, 33 U.S.C. § 1311(a), it is unlawful for any person to discharge any pollutant from a point source into "navigable waters" except in compliance with various sections of the Act, including section 402 of the Act, 33 U.S.C. § 1342.
- 2) Section 402 of the Act establishes the National Pollutant Discharge Elimination System ("NPDES") permits program. Pursuant to section 402 of the Act, EPA may issue NPDES permits for the discharge of pollutants into navigable waters located within the Territory of Guam.
- 3) "Pollutant" means, among other things, sewage, garbage, sewage sludge, rock, sand, chemical wastes, biological materials, dredged spoil, solid waste, incinerator residue, munitions, radioactive materials, heat, wrecked or discarded equipment, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. 33 U.S.C. § 1362(6).
- 4) A "point source" means any discernable, confined and discrete conveyance including, but not limited to, any pipe or other conduit from which pollutants are, or may be, discharged. 33 U.S.C. § 1362(14).
- 5) A "discharge of pollutants" means any addition of any pollutant to navigable waters from any point source. 33 U.S.C. § 1362(12).
- 6) "Navigable waters" means the "waters of the United States," which includes all waters used in interstate commerce, including tidal waters and their tributaries. 33 U.S.C. § 1362(7); 40 C.F.R. §§ 122.3 and 230.3(s).
- 7) GPA is the owner of Cabras Power Plant, located at No. 178 Cabras Highway, Piti, Guam. Cabras Power Plant is operated by Taiwan Electrical and Mechanical Engineering Services, Inc. (TEMES). GPA is a "person" in the context of section 502(5) of the Act. 33 U.S.C. §§ 1362(4) and 1362(5). As such, it is subject to the provisions of the Act. 33 U.S.C. Section 1251 et seq.
- 8) GPA's Cabras Power Plant discharges to Piti Channel, a tributary to Inner Apra Harbor, which is a "navigable water" as defined by Section 502(7) of the Act, 33 USC §1362(7), and a "water of the United States" as defined by EPA regulations in 40 CFR §122.2.
- 9) On March 9, 2010, an EPA contractor, PG Environmental, and Guam EPA conducted a compliance evaluation inspection of GPA's Cabras Power Plant. GPA representatives were present during the inspection. Various noncompliance issues were noted during the inspection and were shared with GPA representatives. These

noncompliance issues are further documented in EPA's inspection report. A copy of the report is attached and made part of this Finding of Violation and Order.

- 10) EPA issued NPDES Permit No. GU0020001 to the GPA, which became effective on January 31, 2001, expired on January 31, 2006, and has been administratively extended. The NPDES permit regulates the discharge of non-contact cooling water from four generating units through Outfall Serial Nos. 001 and 002, and storm water from the storm water collection system around Cabras Units 1 and 2 through Outfall Serial No. 101 from the Facility to Piti Channel, a tributary to Apra Harbor. Discharge of low-volume wastes, such as metal cleaning wastes, treatment system brine, and wash water, was not permitted. The NPDES permit does not authorize the discharge of pollutants from any other sources or from any other points of discharge.

Findings related to monitoring required by NPDES permit:

- 11) Part 1 and Part 2 of NPDES Permit No. GU0020001, require GPA to conduct continuous measurement of the effluent flow from Outfalls Serial Nos. 001, 002, and 101. During the March 2010 inspection, no flow measurement devices were located at any of the three outfalls. GPA was not continuously monitoring the flow from Outfall Serial No. 101 as required by Part 1 and Part 2 of the Permit.
- 12) Part 1 of NPDES Permit No. GU0020001 requires GPA to continuously monitor temperature at the intake structure and Outfall Serial Nos. 001 and 002. The inspectors determined that GPA does not conduct continuous temperature monitoring at the intake structure or at Outfall Serial Nos. 001 and 002, as required by Part 1 of the Permit because no temperature probes were located at either intake or either effluent discharge structure.
- 13) Standard Condition 11 to NPDES Permit No. GU0020001 requires GPA to maintain records of monitoring information, including the date and time of sampling or measurements, and the results of such analyses. Standard Condition 10 requires that GPA provide inspectors access to any records maintained under the conditions of the Permit. During the March 2010 inspection, when requested, GPA did not provide monitoring records for any of the effluent pH values reported on the 2009 Discharge Monitoring Reports (DMRs), including sample results, as required by its Permit.
- 14) Part 6 of NPDES Permit No. GU0020001 requires GPA to monitor effluent toxicity quarterly at two separate NPDES sampling locations for cooling water at Outfall Serial Nos. 001 and 002. During the records review portion of the March 2010 inspection, and based on the four quarterly toxicity reports submitted by GPA for 2009, GPA is monitoring for toxicity at a commingled location, and not from the individual outfall locations, as specified in the Permit.

15) Although the permit does not authorize discharge of low-volume waste from Outfalls Serial No. 001, 002, or 101, Part 5 of NPDES Permit No. GU0020001 requires GPA to monitor low volume wastes monthly for daily flow volume and oil and grease and report these values quarterly with the DMRs. Low-volume waste consists of reverse osmosis brine and floor drainage. The March 2010 inspection found that this waste is currently discharged to an infiltration pond. GPA did not report monthly low volume waste daily flow volume with DMRs between April 2007 and June 2010

Findings related to reporting required by NPDES permit:

16) Part 1 of NPDES Permit No. GU0020001 requires continuous monitoring of flow from Outfall Serial No. 001, to be reported monthly on DMRs. During the March 2010 inspection, the inspectors noted that GPA does not have flow monitoring equipment at Outfall Serial No. 001. The review of DMRs revealed that GPA had improperly reported a value of 172.8 mgd on each DMR between July 2005 and June 2010. It is improbable that the effluent flows would be the same each month. EPA finds that GPA is not accurately monitoring and reporting effluent flow at Outfall Serial No. 001 as required by the Permit.

17) Part 1 of NPDES Permit No. GU0020001 requires weekly monitoring of pH and monthly reporting on DMRs from Outfall Serial No. 001 and 002. A review of the DMRs revealed that GPA had reported pH minimum of 8.16 and pH maximum of 8.23 for each month from October 2008 through October 2009 from Outfall No. 001, and pH minimum of 8.14 and pH maximum of 8.21 for each month from October 2008 and October 2009, except August 2009, from Outfall No. 002. It is improbable that effluent pH would be the same each month. EPA finds that GPA is not accurately monitoring and reporting effluent pH at Outfall Serial No. 001 or Outfall Serial No. 002 as required by the Permit.

18) Part 1 of NPDES Permit No. GU0020001 establishes a monthly monitoring requirement and mass effluent limitation for fluoride of 1,350 kg/day for Outfalls Serial No. 001 and 002. GPA did not report the monthly mass discharge of fluoride from Outfall Serial Nos. 001 or 002 during any month between July 2005 and June 2010. Attachment 1 Table 2 provides a list of the data GPA failed to report on its DMRs.

19) Part 1 of NPDES Permit GU0020001 for Outfalls Serial No. 001 and 002 establishes the requirements for monitoring and reporting receiving water temperature. Review of the DMRs submitted by GPA from July 2005 through June 2010 reveals that GPA has failed to report monitoring data for receiving water temperature in each month between July 2005 and June 2010. Attachment 1 Table 2 provides a list of the data GPA failed to report on its DMRs.

- 20) Part 2 of NPDES Permit GU0020001 for Outfall No. 101 establishes the requirements for monitoring and reporting of flow, pH, fluoride, suspended solids, and oil and grease. Review of the DMRs submitted by GPA from January 2005 through June 2010 reveals that on numerous occasions, GPA has failed to report monitoring data for flow, pH, fluoride, suspended solids, and oil and grease. Attachment 1 Table 3 provides a list of the data GPA failed to report on its DMRs for Outfall Serial No. 101.
- 21) Part 14.e of NPDES Permit No. GU0020001 requires GPA to submit to USEPA and GEPA, by January 28 of each year, an annual summary of the quantities of all chemicals that are used at the Facility and may potentially be discharged, listed by both chemical and trade names. During the March 2010 inspection, GPA was unable to provide a copy of the 2009 annual summary of chemical additives or supporting documentation that such a summary was submitted to USEPA and GEPA by January 28, 2010. EPA has no records that the summary was included with the first quarter 2010 DMRs as required by the Permit.

Findings related to NPDES permit effluent limit violations:

- 22) Part 2 of NPDES Permit No. GU0020001 establishes a daily maximum effluent concentration limitation for suspended solids of 50 mg/l and a monthly monitoring requirement for Outfall Serial No. 101. Part 2 of NPDES Permit No. GU0020001 establishes a daily maximum effluent concentration limitation for oil and grease of 15 mg/l for Outfall Serial No. 101. A review of DMRs for July 2005 through June 2010 reveals that GPA violated effluent limitations for suspended solids concentration and oil and grease concentration at Outfall Serial No. 101 on six occasions. Table 1 lists effluent limitation violations for Outfall 101.

Table 1: Effluent Limitation Violations from Outfall Serial No. 101 as Reported on DMRs by GPA from July 2005 through June 2010.

DMR Date (Yr/Mo)	Parameter	Permit Requirement	Measured Value (mg/l)
2006/06	Suspended Solids (daily max.)	50 mg/l	71.7
2008/08	Suspended Solids (daily max.)	50 mg/l	99.8
2007/11	Oil and Grease (monthly ave.)	15 mg/l	15.1
2008/01	Suspended Solids (daily max.)	50 mg/L	84
2009/01	Suspended Solids (daily max.)	50 mg/L	74
2009/07	Suspended Solids (daily max.)	50 mg/L	170

Findings related to BMPs and O&M:

- 23) Inspectors observed that a municipal supply water line for the fire protection was ruptured and leaking on-site, through a pile of loose dirt and into a storm drain discharging to Outfall Serial No. 101. GPA is permitted to discharge only storm water through Outfall Serial No. 101. The discharge of municipal supply water through Outfall Serial No. 101 is not a permitted discharge.
- 24) Standard Condition 6 of NPDES Permit No. GU0020001 requires GPA to properly operate and maintain “all facilities and systems of treatment and control which are installed or used by the permittee to achieve compliance with the conditions of this permit”. During the March 2010 inspection, the inspectors noted that the oil/water separator was inoperable, and the pump station used to transfer low-volume waste to the sanitary sewer was inoperable. GPA has failed to properly operate and maintain its treatment facilities as required by the Permit.
- 25) Part 13 of NPDES Permit No. GU0020001 requires GPA to develop and implement a storm water BMP Plan to prevent contamination of storm water originating at the Facility.
- a) Part 13.b of NPDES Permit No. GU0020001 requires that the BMP Plan include specific source identification measures, including:
- i) A detailed site map indicating all storm water runoff collection systems and land disposal/containment areas;
 - ii) A detailed site map showing all materials storage facilities and any construction areas and the associated storm water drainage system;
 - iii) A description of on-site toxic or hazardous materials storage, transport and disposal. Materials described shall include petrochemical products; and
 - iv) A list of significant spills and leaks of toxic or hazardous pollutants, including petro-chemical products, which occurred at the facility over the past five years.
- b) The BMP Plan that GPA made available for review by the inspector on March 9, 2010 did not contain a site map (i and ii), a description of on-site toxic and hazardous materials storage (iii), or a list of significant spills and leaks of toxic and hazardous pollutants (iv) as required by the Permit.

- c) Part 13.d.I of NPDES Permit No. GU0020001 requires BMPs be established to ensure that:
- i) scrap metal, wood, plastic, miscellaneous trash, and industrial scrap and waste are routinely removed from the grounds and properly disposed of;
 - ii) routine clean up of litter and debris on-site is performed to prevent accumulation and possible discharge to the receiving water;
 - iii) weather protection is provided for on-site storage areas to prevent direct contact between rainwater and industrial materials;
 - iv) used batteries, oil, paint, scrap metal, unused machinery and other toxic materials shall be disposed of in a manner that is safe, legal, and prevents storm water contamination; and
 - v) hazardous wastes including used paint and batteries be properly disposed of within the guidelines of RCRA.
- d) During the March 9, 2010 inspection, the inspector observed used paint cans, a vehicle battery and other industrial debris stored uncovered and uncontained behind the maintenance shop, adjacent to Piti Channel. Due to the location, the inspector believes there is potential for storm water to reach the receiving water. Facility representatives stated that these materials had been present for over a month. Additional industrial debris, such as empty 55-gallon drums, packaging, floor buffer pads, tires, scrap metal, and materials with oily residue were observed in a storage yard adjacent to the discharge locations. Twelve full 55-gallon drums of a petroleum product ("DTE Oil Light, ISO 32") were observed stored on the south side of Units 1 and 2 without secondary containment, in the drainage area for Outfall Serial No. 101. The secondary containment around an oil tank just south of Units 1 and 2 appeared to be breached, allowing potential infiltration into the ground, or the possibility of commingling with storm water runoff that may discharge to Outfall Serial No. 101. Based on the foregoing observations made by the EPA inspector, GPA has failed to implement the BMP Plan as required in Part 13.d of the Permit.
- e) Part 13.d.IV.f of NPDES Permit No. GU0020001 requires GPA to develop an employee and subcontractor training program emphasizing pollution prevention and implementation of the BMPs. Part 4.1.6 of GPA's BMP Plan requires weekly and semi-annual employee training on the plan or BMPs contained in the plan. During the March 2010 inspection, employee training records were not available for review. GPA was unable to demonstrate that they have been providing employee training consistent with the requirements of the BMP Plan and Part

13.d.IV.f of the Permit. Further, the Facility employee responsible for conducting the weekly inspections stated that he had never received training regarding the BMP Plan. GPA has failed to comply with the training requirements as required in Part 13.d of the Permit.

- f) Part 13.e.II of NPDES Permit No. GU0020001 requires GPA to establish BMPs to ensure that oil water separators and other storm water management devices such as storm drain catch basins are routinely inspected and cleaned to ensure their proper operation. The oil water separator located on the southwest side of the Facility, adjacent to the outfall locations, was not operational. Facility representatives indicated that the oil water separator had not been operational for some time. GPA has failed to comply with the inspection and maintenance requirements of Part 13 of the Permit.
- g) Part 4.13 of the BMP Plan states that effluent from the Cabras 1 and 2 neutralization pit is discharged to the sanitary sewer system. The inspector found that GPA does not discharge effluent from the Cabras 1 and 2 neutralization pit to the sanitary sewer but instead discharges this effluent to the western infiltration pond. The Facility representative stated that the BMP Plan does not accurately describe the current practice utilized at the Facility. The BMP Plan is required to contain detailed maps depicting all storm water runoff, collection, and drainage systems. GPA has failed to maintain an up to date BMP Plan as required by Part 13 of the Permit.
- h) Part 5 of the BMP Plan includes a weekly inspection log that is to be completed weekly to assure the BMP Plan is being implemented correctly and to record progress on specific tasks. The BMP Plan states that the inspection should cover the entire storm water control system, all storage areas and secondary containment, and the grounds of the plant. Within the inspection log, GPA must record any findings, previous findings, and recommended corrective actions for each area inspected. The weekly inspection log for March 1, 2010 was reviewed during the inspection. The inspection log indicated that the area around the maintenance shop was "clean". However, on the date of the inspection, used cans of paint, a vehicle battery, and other debris were observed in this location. The Facility representative stated that this material had been at this location for "greater than a month", inconsistent with the March 1, 2010 BMP weekly inspection log. The inspection log also does not make note of a significant volume of condensate discharging from the low temperature cooling system (for Units 3 and 4) to Cabras 1 and 2 storm water system which has reportedly been occurring for approximately one year, or a significant amount of debris located in the southwest portion of the Facility. GPA has failed maintain an accurate weekly inspection log as required by the Permit.

Considering the foregoing Findings, EPA has determined that compliance in accordance with the following requirements is reasonable. Pursuant to the authority of sections 308(a) and 309(a) of the Act, it is hereby ORDERED that GPA immediately comply with the following requirements:

ORDER FOR COMPLIANCE

COMPLIANCE WITH NPDES PERMIT

- 1) Upon receipt of this Order, GPA shall immediately take all steps feasible to fully and properly comply with all terms and conditions of its NPDES permit.
- 2) Upon receipt of this Order GPA shall immediately maintain monitoring records as required by Standard Condition 11 of its NPDES Permit.
- 3) By 30 days following receipt of this Order, GPA shall submit brief responses to each of the Findings numbers 11 through 25, explaining reasons for each violation of the Permit cited in this Finding of Violation and Order.
- 4) By 30 days following receipt of this Order, with the exception of flow monitoring, GPA will achieve and maintain compliance with all monitoring and reporting requirements of its Permit.
- 5) By 45 days following receipt of this Order, GPA shall provide copies of documentation available to support the DMRs submitted for the period beginning July 2005 and continuing through July of 2010. The supporting documentation to be submitted includes, but is not limited to, a description of the sampling locations used for influent, effluent, and receiving water samples, explanation of how mass effluent discharge was calculated, explanation of how effluent flow values are reported, explanation of how pH values reported between October 2008 and 2009 were determined, and provide the basis for any assumptions used in the calculations
- 6) By 90 days following receipt of this Order, GPA shall submit a plan and schedule to bring the facility into full compliance with its NPDES permit. The Plan shall address all Findings above related to monitoring, reporting, BMPs, and O&M. The Plan shall cover all steps required of the discharger to control all process waters, storm water, and low volume wastewater in compliance with the NPDES permit. The plan shall include, at a minimum:
 - a) An O&M plan. The plan shall include all repairs necessary to eliminate all leaks that are described in the attached inspection report, repair the oil/water separator so that it operates as intended, and restore the treatment system equipment necessary for disposal of low-volume waste consistent with the Permit;

- b) A plan for sampling, monitoring, and reporting required by the NPDES permit. This plan shall include the necessary steps required for complete and proper compliance with the NPDES permit. The plan shall describe collection of influent and effluent samples, chain of custody, methods, roles and responsibilities, transcription of data sheets to DMRs;
 - c) A plan for achieving compliance with each of the effluent limitations cited as a violation in Part 22 of the Finding of Violation. The plan shall describe all measures that GPA will take to achieve compliance with effluent limits including process modifications, treatment system repairs, and installation of treatment systems such that GPA achieves continuous compliance with all effluent limitations within six months of receipt of this Order.
- 7) By 90 days following receipt of this Order, GPA shall submit a revision of the BMP plan. The revision shall establish procedures for ensuring that facility inspections and inspection documentation is completed, employee training and training documentation and that all records are maintained on-site as required by the Permit. The plans shall establish procedures to ensure that trash and hazardous materials are eliminated from all areas where it may contact storm water. Elimination of hazardous materials shall be done in compliance with all applicable laws and regulations. Documentation of inspections shall contain date-stamped photographs.
- 8) By 90 days following receipt of this Order, GPA shall submit a copy of the most current summary of chemicals used at the facility that could potentially be discharged, as required by 14.c. of the Permit. The summary is to include names, trade names, and quantities of each chemical.
- 9) By 90 days following receipt of this Order, GPA shall submit an estimate of the cost to comply with this Order.
- 10) Upon completion, GPA shall implement its plans such that, by six months following receipt of this Order, GPA shall:
- a) Achieve and maintain compliance with the flow monitoring and reporting requirements of its Permit.
 - b) Complete all repairs necessary to eliminate leak of fire protection system, and bring the oil-water separator and low-volume wastewater treatment and disposal system into proper function.
 - c) Achieve and maintain full compliance with the effluent limitations and other requirements of the NPDES permit.
- 11) By six months following receipt of this Order, GPA will achieve and maintain full compliance with its NPDES permit.

12) COMPLETION CERTIFICATION REPORT:

Nine months following receipt of this Order, GPA shall submit a written summary report detailing implementation of the requirements of this Order. The report shall include photographs to aid in documenting progress. The report shall also evaluate the effectiveness of the programs, and certify that GPA has completed all requirements and has achieved compliance with this Order.

13) INFORMATION SUBMITTAL

- a) All submittals made pursuant to this Order shall be mailed to the following addresses:

JoAnn Cola
United States Environmental Protection Agency
Region 9
75 Hawthorne St. (WTR-7)
San Francisco, CA 94105

Bradley Dunagan, Deputy Administrator
Guam EPA
P.O. Box 22439- GMF
Barrigada, Guam 96921

- b) All reports submitted pursuant to this Order shall be signed by a principal executive officer, ranking elected official or duly authorized representative of GPA [as specified by 40 CFR §122.22(b)(2)] and shall include the following statement:

“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 am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”

- c) The information requested herein must be provided notwithstanding its possible characterization as confidential business information or trade secrets. EPA has promulgated regulations to protect the confidentiality of the business information

it receives. These regulations are set forth in part 2, subpart B of Title 40 of the Code of Federal Regulations. A claim of business confidentiality may be asserted in the manner specified by 40 C.F.R. §2.203(b) for part or all of the information requested. EPA will disclose business information covered by such a claim only as authorized under 40 C.F.R. part 2, subpart B. If no such claim accompanies the business information at the time EPA receives it, EPA may make it available to the public without further notice.

3) GENERAL PROVISIONS

- a) This Order shall be binding upon GPA and its officers, directors, agents, employees, contractors, heirs, successors, and assigns.
- b) This Order is not and shall not be interpreted to be a National Pollutant Discharge Elimination System permit under Section 402 of the Act, [33 U.S.C. § 1342]. In addition, this Order shall not in any way extinguish, waive, satisfy, or otherwise affect GPA's obligation to comply with the Act or its regulations, as well as any other Federal, State or local law.
- c) This Order is not deemed an election by EPA to forego any remedies available to it under the law, including without limitation, any administrative, civil, or criminal action to seek penalties, fines, or other appropriate relief under the Act. EPA reserves all rights and remedies, legal and equitable, available to enforce any violations cited in this Order and to enforce this Order.
- d) Requests for information contained with this Order are not subject to review by the Office of Management and Budget under the Paperwork Reduction Act because it is not "collection of information" within the meaning of 44 U.S.C. § 3502(3). It is directed to fewer than ten persons and is an exempt investigation under 44 U.S.C. § 3518(c)(1) and 5 CFR 1320.4(a)(2).
- e) Respondent may not withhold from EPA any information on the grounds that it is confidential business information. However, EPA has promulgated, under 40 CFR Part 2, Subpart B, regulations to protect confidential business information it receives. If legally supportable, a claim of business confidentiality may be asserted in the manner specified by 40 CFR 2.203(b) for all or part of the information requested by EPA. EPA will disclose business information covered by such claim only as authorized under 40 CFR Part 2, Subpart B. If no claim of business confidentiality accompanies the information at the time EPA receives it, EPA may make it available to the public without further notice.

- f) Section 309(a), (b), (d), and (g) of the Act, 33 U.S.C. § 1319(a), (b), (d), and (g), provides administrative and/or judicial relief for failure to comply with the CWA. In addition, Section 309(c) of the Act, 33 U.S.C. § 1319(c), provides criminal sanctions for negligent or knowing violations of the CWA and for knowingly making false statements.
- g) This Order takes effect upon the date of receipt by GPA.
- h) This Order remains in effect until terminated by the Director of the Water Division, EPA, Region 9.

Dated this _____ day of _____, 2010

Alexis Strauss
Director, Water Division
U.S. Environmental Protection Agency

Attachment 1
 Unreported Data from DMRs Submitted by GPA
 Outfalls Nos. 001, 002, and 101
 July 2005 – June 2010

The tables in Attachment 1 represent a listing of data required by GPA’s Permit and that GPA had failed to submit on its DMRs between July 2005 and June 2010. The data for Outfalls No. 001 and 002 is tabulated together on Table 2 by DMR date and permit parameter because the data dates and parameters are the same for both. Table 3 tabulates the unreported data for Outfall 101 also by date and permit parameter.

Outfall No. 001 and Outfall No. 002

Table 2: Unreported Data for Outfall No. 001 and Outfall No. 002 listed by date and permit parameter

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2005/07	Temperature (receiving water)	<1 deg. C from ambient	2005/07	Temperature (receiving water)	<1 deg. C from ambient
2005/07	Fluoride	1350 kg/day (daily max)	2005/07	Fluoride	1350 kg/day (daily max)
2005/08	Temperature (receiving water)	<1 deg. C from ambient	2005/08	Temperature (receiving water)	<1 deg. C from ambient
2005/08	Fluoride	1350 kg/day (daily max)	2005/08	Fluoride	1350 kg/day (daily max)
2005/09	Temperature (receiving water)	<1 deg. C from ambient	2005/09	Temperature (receiving water)	<1 deg. C from ambient
2005/09	Fluoride	1350 kg/day (daily max)	2005/09	Fluoride	1350 kg/day (daily max)

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2005/10	Temperature (receiving water)	<1 deg. C from ambient	2005/10	Temperature (receiving water)	<1 deg. C from ambient
2005/10	Fluoride	1350 kg/day (daily max)	2005/10	Fluoride	1350 kg/day (daily max)
2005/11	Temperature (receiving water)	<1 deg. C from ambient	2005/11	Temperature (receiving water)	<1 deg. C from ambient
2005/11	Fluoride	1350 kg/day (daily max)	2005/11	Fluoride	1350 kg/day (daily max)
2005/12	Temperature (receiving water)	<1 deg. C from ambient	2005/12	Temperature (receiving water)	<1 deg. C from ambient
2005/12	Fluoride	1350 kg/day (daily max)	2005/12	Fluoride	1350 kg/day (daily max)
2006/01	Temperature (receiving water)	<1 deg. C from ambient	2006/01	Temperature (receiving water)	<1 deg. C from ambient
2006/01	Fluoride	1350 kg/day (daily max)	2006/01	Fluoride	1350 kg/day (daily max)
2006/02	Temperature (receiving water)	<1 deg. C from ambient	2006/02	Temperature (receiving water)	<1 deg. C from ambient
2006/02	Fluoride	1350 kg/day (daily max)	2006/02	Fluoride	1350 kg/day (daily max)
2006/03	Temperature (receiving water)	<1 deg. C from ambient	2006/03	Temperature (receiving water)	<1 deg. C from ambient
2006/03	Fluoride	1350 kg/day (daily max)	2006/03	Fluoride	1350 kg/day (daily max)
2006/04	Temperature (receiving water)	<1 deg. C from ambient	2006/04	Temperature (receiving water)	<1 deg. C from ambient
2006/04	Fluoride	1350 kg/day (daily max)	2006/04	Fluoride	1350 kg/day (daily max)

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2006/05	Temperature (receiving water)	<1 deg. C from ambient	2006/05	Temperature (receiving water)	<1 deg. C from ambient
2006/05	Fluoride	1350 kg/day (daily max)	2006/05	Fluoride	1350 kg/day (daily max)
2006/06	Temperature (receiving water)	<1 deg. C from ambient	2006/06	Temperature (receiving water)	<1 deg. C from ambient
2006/06	Fluoride	1350 kg/day (daily max)	2006/06	Fluoride	1350 kg/day (daily max)
2006/07	Temperature (receiving water)	<1 deg. C from ambient	2006/07	Temperature (receiving water)	<1 deg. C from ambient
2006/07	Fluoride	1350 kg/day (daily max)	2006/07	Fluoride	1350 kg/day (daily max)
2006/08	Temperature (receiving water)	<1 deg. C from ambient	2006/08	Temperature (receiving water)	<1 deg. C from ambient
2006/08	Fluoride	1350 kg/day (daily max)	2006/08	Fluoride	1350 kg/day (daily max)
2006/09	Temperature (receiving water)	<1 deg. C from ambient	2006/09	Temperature (receiving water)	<1 deg. C from ambient
2006/09	Fluoride	1350 kg/day (daily max)	2006/09	Fluoride	1350 kg/day (daily max)
2006/10	Temperature (receiving water)	<1 deg. C from ambient	2006/10	Temperature (receiving water)	<1 deg. C from ambient
2006/10	Fluoride	1350 kg/day (daily max)	2006/10	Fluoride	1350 kg/day (daily max)
2006/11	Temperature (receiving water)	<1 deg. C from ambient	2006/11	Temperature (receiving water)	<1 deg. C from ambient
2006/11	Fluoride	1350 kg/day (daily max)	2006/11	Fluoride	1350 kg/day (daily max)

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2006/12	Temperature (receiving water)	<1 deg. C from ambient	2006/12	Temperature (receiving water)	<1 deg. C from ambient
2006/12	Fluoride	1350 kg/day (daily max)	2006/12	Fluoride	1350 kg/day (daily max)
2007/01	Temperature (receiving water)	<1 deg. C from ambient	2007/01	Temperature (receiving water)	<1 deg. C from ambient
2007/01	Fluoride	1350 kg/day (daily max)	2007/01	Fluoride	1350 kg/day (daily max)
2007/02	Temperature (receiving water)	<1 deg. C from ambient	2007/02	Temperature (receiving water)	<1 deg. C from ambient
2007/02	Fluoride	1350 kg/day (daily max)	2007/02	Fluoride	1350 kg/day (daily max)
2007/03	Temperature (receiving water)	<1 deg. C from ambient	2007/03	Temperature (receiving water)	<1 deg. C from ambient
2007/03	Fluoride	1350 kg/day (daily max)	2007/03	Fluoride	1350 kg/day (daily max)
2007/04	Temperature (receiving water)	<1 deg. C from ambient	2007/04	Temperature (receiving water)	<1 deg. C from ambient
2007/04	Fluoride	1350 kg/day (daily max)	2007/04	Fluoride	1350 kg/day (daily max)
2007/05	Temperature (receiving water)	<1 deg. C from ambient	2007/05	Temperature (receiving water)	<1 deg. C from ambient
2007/05	Fluoride	1350 kg/day (daily max)	2007/05	Fluoride	1350 kg/day (daily max)
2007/06	Temperature (receiving water)	<1 deg. C from ambient	2007/06	Temperature (receiving water)	<1 deg. C from ambient
2007/06	Fluoride	1350 kg/day (daily max)	2007/06	Fluoride	1350 kg/day (daily max)

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2007/07	Temperature (receiving water)	<1 deg. C from ambient	2007/07	Temperature (receiving water)	<1 deg. C from ambient
2007/07	Fluoride	1350 kg/day (daily max)	2007/07	Fluoride	1350 kg/day (daily max)
2007/08	Temperature (receiving water)	<1 deg. C from ambient	2007/08	Temperature (receiving water)	<1 deg. C from ambient
2007/08	Fluoride	1350 kg/day (daily max)	2007/08	Fluoride	1350 kg/day (daily max)
2007/09	Temperature (receiving water)	<1 deg. C from ambient	2007/09	Temperature (receiving water)	<1 deg. C from ambient
2007/09	Fluoride	1350 kg/day (daily max)	2007/09	Fluoride	1350 kg/day (daily max)
2007/10	Temperature (receiving water)	<1 deg. C from ambient	2007/10	Temperature (receiving water)	<1 deg. C from ambient
2007/10	Fluoride	1350 kg/day (daily max)	2007/10	Fluoride	1350 kg/day (daily max)
2007/11	Temperature (receiving water)	<1 deg. C from ambient	2007/11	Temperature (receiving water)	<1 deg. C from ambient
2007/11	Fluoride	1350 kg/day (daily max)	2007/11	Fluoride	1350 kg/day (daily max)
2007/12	Temperature (receiving water)	<1 deg. C from ambient	2007/12	Temperature (receiving water)	<1 deg. C from ambient
2007/12	Fluoride	1350 kg/day (daily max)	2007/12	Fluoride	1350 kg/day (daily max)
2008/01	Temperature (receiving water)	<1 deg. C from ambient	2008/01	Temperature (receiving water)	<1 deg. C from ambient

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2008/01	Fluoride	1350 kg/day (daily max)	2008/01	Fluoride	1350 kg/day (daily max)
2008/02	Temperature (receiving water)	<1 deg. C from ambient	2008/02	Temperature (receiving water)	<1 deg. C from ambient
2008/02	Fluoride	1350 kg/day (daily max)	2008/02	Fluoride	1350 kg/day (daily max)
2008/03	Temperature (receiving water)	<1 deg. C from ambient	2008/03	Temperature (receiving water)	<1 deg. C from ambient
2008/03	Fluoride	1350 kg/day (daily max)	2008/03	Fluoride	1350 kg/day (daily max)
2008/04	Temperature (receiving water)	<1 deg. C from ambient	2008/04	Temperature (receiving water)	<1 deg. C from ambient
2008/04	Fluoride	1350 kg/day (daily max)	2008/04	Fluoride	1350 kg/day (daily max)
2008/05	Temperature (receiving water)	<1 deg. C from ambient	2008/05	Temperature (receiving water)	<1 deg. C from ambient
2008/05	Fluoride	1350 kg/day (daily max)	2008/05	Fluoride	1350 kg/day (daily max)
2008/06	Temperature (receiving water)	<1 deg. C from ambient	2008/06	Temperature (receiving water)	<1 deg. C from ambient
2008/06	Fluoride	1350 kg/day (daily max)	2008/06	Fluoride	1350 kg/day (daily max)
2008/07	Temperature (receiving water)	<1 deg. C from ambient	2008/07	Temperature (receiving water)	<1 deg. C from ambient
2008/07	Fluoride	1350 kg/day (daily max)	2008/07	Fluoride	1350 kg/day (daily max)

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2008/08	Temperature (receiving water)	<1 deg. C from ambient	2008/08	Temperature (receiving water)	<1 deg. C from ambient
2008/08	Fluoride	1350 kg/day (daily max)	2008/08	Fluoride	1350 kg/day (daily max)
2008/09	Temperature (receiving water)	<1 deg. C from ambient	2008/09	Temperature (receiving water)	<1 deg. C from ambient
2008/09	Fluoride	1350 kg/day (daily max)	2008/09	Fluoride	1350 kg/day (daily max)
2008/10	Temperature (receiving water)	<1 deg. C from ambient	2008/10	Temperature (receiving water)	<1 deg. C from ambient
2008/10	Fluoride	1350 kg/day (daily max)	2008/10	Fluoride	1350 kg/day (daily max)
2008/11	Temperature (receiving water)	<1 deg. C from ambient	2008/11	Temperature (receiving water)	<1 deg. C from ambient
2008/11	Fluoride	1350 kg/day (daily max)	2008/11	Fluoride	1350 kg/day (daily max)
2008/12	Temperature (receiving water)	<1 deg. C from ambient	2008/12	Temperature (receiving water)	<1 deg. C from ambient
2008/12	Fluoride	1350 kg/day (daily max)	2008/12	Fluoride	1350 kg/day (daily max)
2009/01	Temperature (receiving water)	<1 deg. C from ambient	2009/01	Temperature (receiving water)	<1 deg. C from ambient
2009/01	Fluoride	1350 kg/day (daily max)	2009/01	Fluoride	1350 kg/day (daily max)
2009/02	Temperature (receiving water)	<1 deg. C from ambient	2009/02	Temperature (receiving water)	<1 deg. C from ambient

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2009/02	Fluoride	1350 kg/day (daily max)	2009/02	Fluoride	1350 kg/day (daily max)
2009/03	Temperature (receiving water)	<1 deg. C from ambient	2009/03	Temperature (receiving water)	<1 deg. C from ambient
2009/03	Fluoride	1350 kg/day (daily max)	2009/03	Fluoride	1350 kg/day (daily max)
2009/04	Temperature (receiving water)	<1 deg. C from ambient	2009/04	Temperature (receiving water)	<1 deg. C from ambient
2009/04	Fluoride	1350 kg/day (daily max)	2009/04	Fluoride	1350 kg/day (daily max)
2009/05	Temperature (receiving water)	<1 deg. C from ambient	2009/05	Temperature (receiving water)	<1 deg. C from ambient
2009/05	Fluoride	1350 kg/day (daily max)	2009/05	Fluoride	1350 kg/day (daily max)
2009/06	Temperature (receiving water)	<1 deg. C from ambient	2009/06	Temperature (receiving water)	<1 deg. C from ambient
2009/06	Fluoride	1350 kg/day (daily max)	2009/06	Fluoride	1350 kg/day (daily max)
2009/07	Temperature (receiving water)	<1 deg. C from ambient	2009/07	Temperature (receiving water)	<1 deg. C from ambient
2009/07	Fluoride	1350 kg/day (daily max)	2009/07	Fluoride	1350 kg/day (daily max)
2009/08	Temperature (receiving water)	<1 deg. C from ambient	2009/08	Temperature (receiving water)	<1 deg. C from ambient
2009/08	Fluoride	1350 kg/day (daily max)	2009/08	Fluoride	1350 kg/day (daily max)

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2009/09	Temperature (receiving water)	<1 deg. C from ambient	2009/09	Temperature (receiving water)	<1 deg. C from ambient
2009/09	Fluoride	1350 kg/day (daily max)	2009/09	Fluoride	1350 kg/day (daily max)
2009/10	Temperature (receiving water)	<1 deg. C from ambient	2009/10	Temperature (receiving water)	<1 deg. C from ambient
2009/10	Fluoride	1350 kg/day (daily max)	2009/10	Fluoride	1350 kg/day (daily max)
2009/11	Temperature (receiving water)	<1 deg. C from ambient	2009/11	Temperature (receiving water)	<1 deg. C from ambient
2009/11	Fluoride	1350 kg/day (daily max)	2009/11	Fluoride	1350 kg/day (daily max)
2009/12	Temperature (receiving water)	<1 deg. C from ambient	2009/12	Temperature (receiving water)	<1 deg. C from ambient
2009/12	Fluoride	1350 kg/day (daily max)	2009/12	Fluoride	1350 kg/day (daily max)
2010/01	Temperature (receiving water)	<1 deg. C from ambient	2010/01	Temperature (receiving water)	<1 deg. C from ambient
2010/01	Fluoride	1350 kg/day (daily max)	2010/01	Fluoride	1350 kg/day (daily max)
2010/02	Temperature (receiving water)	<1 deg. C from ambient	2010/02	Temperature (receiving water)	<1 deg. C from ambient
2010/02	Fluoride	1350 kg/day (daily max)	2010/02	Fluoride	1350 kg/day (daily max)
2010/03	Temperature (receiving water)	<1 deg. C from ambient	2010/03	Temperature (receiving water)	<1 deg. C from ambient

Outfall 001 DMR Date (Yr/Mo)	Parameter	Permit Requirement	Outfall 002 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2010/03	Fluoride	1350 kg/day (daily max)	2010/03	Fluoride	1350 kg/day (daily max)
2010/04	Temperature (receiving water)	<1 deg. C from ambient	2010/04	Temperature (receiving water)	<1 deg. C from ambient
2010/04	Fluoride	1350 kg/day (daily max)	2010/04	Fluoride	1350 kg/day (daily max)
2010/05	Temperature (receiving water)	<1 deg. C from ambient	2010/05	Temperature (receiving water)	<1 deg. C from ambient
2010/05	Fluoride	1350 kg/day (daily max)	2010/05	Fluoride	1350 kg/day (daily max)
2010/06	Temperature (receiving water)	<1 deg. C from ambient	2010/06	Temperature (receiving water)	<1 deg. C from ambient
2010/06	Fluoride	1350 kg/day (daily max)	2010/06	Fluoride	1350 kg/day (daily max)

Outfall 101

Table 3: Unreported Data for Outfall 101, listed by date and permit parameter

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2005/06	pH	minimum 7.0
2005/06	pH	maximum 9.0
2005/07	pH	minimum 7.0
2005/07	pH	maximum 9.0
2005/07	Suspended Solids (daily max.)	daily max.
2005/08	pH	minimum 7.0
2005/08	pH	maximum 9.0
2005/08	Suspended Solids	daily max.
2005/09	pH	minimum 7.0
2005/09	pH	maximum 9.0
2005/09	Suspended Solids (daily max.)	daily max.
2005/10	pH	minimum 7.0

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2005/10	pH	maximum 9.0
2005/11	pH	minimum 7.0
2005/11	pH	maximum 9.0
2005/12	pH	minimum 7.0
2005/12	pH	maximum 9.0
2006/01	pH	minimum 7.0
2006/01	pH	maximum 9.0
2006/02	pH	minimum 7.0
2006/02	pH	maximum 9.0
2006/03	pH	minimum 7.0
2006/03	pH	maximum 9.0
2006/04	pH	minimum 7.0
2006/04	pH	maximum 9.0
2006/05	pH	minimum 7.0

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2006/05	pH	maximum 9.0
2006/06	pH	minimum 7.0
2006/06	pH	maximum 9.0
2006/07	pH	minimum 7.0
2006/07	pH	maximum 9.0
2006/08	pH	minimum 7.0
2006/08	pH	maximum 9.0
2006/09	pH	minimum 7.0
2006/09	pH	maximum 9.0
2006/10	pH	minimum 7.0
2006/10	pH	maximum 9.0
2006/11	pH	minimum 7.0
2006/11	pH	maximum 9.0
2006/12	pH	minimum 7.0

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2006/12	pH	maximum 9.0
2007/01	pH	minimum 7.0
2007/01	pH	maximum 9.0
2007/02	pH	minimum 7.0
2007/02	pH	maximum 9.0
2007/03	pH	minimum 7.0
2007/03	pH	maximum 9.0
2007/04	Flow	report MGD
2007/04	Oil and Grease (daily max.)	20 mg/l
2007/04	Fluoride	report kg/day mass loading
2007/04	Fluoride	report mg/l concentration
2007/04	pH	minimum 7.0
2007/04	pH	maximum 9.0
2007/05	Flow	report MGD

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2007/05	Oil and Grease (daily max.)	20 mg/l
2007/05	Fluoride	report kg/day mass loading
2007/05	Fluoride	report mg/l concentration
2007/05	pH	minimum 7.0
2007/05	pH	maximum 9.0
2007/06	Flow	report MGD
2007/06	Suspended Solids (daily max.)	50 mg/L
2007/06	Oil and Grease (monthly ave.)	15 mg/l
2007/06	Oil and Grease (daily max.)	20 mg/l
2007/06	Fluoride	report kg/day mass loading
2007/06	Fluoride	report mg/l concentration
2007/06	pH	minimum 7.0
2007/06	pH	maximum 9.0

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2007/07	Flow	report MGD
2007/07	Suspended Solids (daily max.)	50 mg/L
2007/07	Oil and Grease (daily max.)	20 mg/l
2007/07	Fluoride	report kg/day mass loading
2007/07	Fluoride	report mg/l concentration
2007/07	pH	minimum 7.0
2007/07	pH	maximum 9.0
2007/08	Flow	report MGD
2007/08	Oil and Grease (daily max.)	20 mg/l
2007/08	Fluoride	report kg/day mass loading
2007/08	Fluoride	report mg/l concentration
2007/08	pH	minimum 7.0
2007/08	pH	maximum 9.0

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2007/09	Flow	report MGD
2007/09	Oil and Grease (daily max.)	20 mg/l
2007/09	Fluoride	report kg/day mass loading
2007/09	Fluoride	report mg/l concentration
2007/09	pH	minimum 7.0
2007/09	pH	maximum 9.0
2007/10	Flow	report MGD
2007/10	Oil and Grease (daily max.)	20 mg/l
2007/10	Fluoride	report kg/day mass loading
2007/10	Fluoride	report mg/l concentration
2007/10	pH	minimum 7.0
2007/10	pH	maximum 9.0
2007/11	Flow	report MGD

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2007/11	Oil and Grease (daily max.)	20 mg/l
2007/11	Fluoride	report kg/day mass loading
2007/11	Fluoride	report mg/l concentration
2007/11	pH	minimum 7.0
2007/11	pH	maximum 9.0
2007/12	Flow	report MGD
2007/12	Oil and Grease (daily max.)	20 mg/l
2007/12	Fluoride	report kg/day mass loading
2007/12	Fluoride	report mg/l concentration
2007/12	pH	minimum 7.0
2007/12	pH	maximum 9.0
2008/01	Flow	report MGD
2008/01	Oil and Grease (daily max.)	20 mg/l

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2008/01	Fluoride	report kg/day mass loading
2008/01	Fluoride	report mg/l concentration
2008/01	pH	minimum 7.0
2008/01	pH	maximum 9.0
2008/02	Flow	report MGD
2008/02	Oil and Grease (daily max.)	20 mg/l
2008/02	Fluoride	report kg/day mass loading
2008/02	Fluoride	report mg/l concentration
2008/02	pH	minimum 7.0
2008/02	pH	maximum 9.0
2008/03	Flow	report MGD
2008/03	Oil and Grease (daily max.)	20 mg/l
2008/03	Fluoride	report kg/day mass loading

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2008/03	Fluoride	report mg/l concentration
2008/03	pH	minimum 7.0
2008/03	pH	maximum 9.0
2008/04	Flow	report MGD
2008/04	Oil and Grease (daily max.)	20 mg/l
2008/04	Fluoride	report kg/day mass loading
2008/04	Fluoride	report mg/l concentration
2008/04	pH	minimum 7.0
2008/04	pH	maximum 9.0
2008/05	Flow	report MGD
2008/05	Oil and Grease (daily max.)	20 mg/l
2008/05	Fluoride	report kg/day mass loading
2008/05	Fluoride	report mg/l concentration
2008/05	pH	minimum 7.0
2008/05	pH	maximum 9.0
2008/06	Flow	report MGD
2008/06	Oil and Grease (daily max.)	20 mg/l
2008/06	Fluoride	report kg/day mass loading
2008/06	Fluoride	report mg/l concentration
2008/06	pH	minimum 7.0
2008/06	pH	maximum 9.0
2008/07	Flow	report MGD

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2008/07	Oil and Grease (daily max.)	20 mg/l
2008/07	Fluoride	report kg/day mass loading
2008/07	Fluoride	report mg/l concentration
2008/07	pH	minimum 7.0
2008/07	pH	maximum 9.0
2008/08	Flow	report MGD
2008/08	Oil and Grease (daily max.)	20 mg/l
2008/08	Fluoride	report kg/day mass loading
2008/08	Fluoride	report mg/l concentration
2008/08	pH	minimum 7.0
2008/08	pH	maximum 9.0
2008/09	Flow	report MGD
2008/09	Oil and Grease (daily max.)	20 mg/l
2008/09	Fluoride	report kg/day mass loading
2008/09	Fluoride	report mg/l concentration
2008/09	pH	minimum 7.0
2008/09	pH	maximum 9.0
2008/07	Flow	report MGD
2008/07	Suspended Solids (daily max.)	50 mg/L
2008/07	Fluoride	report kg/day mass loading

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2008/07	Fluoride	report mg/l concentration
2008/07	pH	minimum 7.0
2008/07	pH	maximum 9.0
2008/08	Flow	report MGD
2008/08	Oil and Grease (daily max.)	20 mg/l
2008/08	Fluoride	report kg/day mass loading
2008/08	Fluoride	report mg/l concentration
2008/08	pH	minimum 7.0
2008/08	pH	maximum 9.0
2008/09	Flow	report MGD
2008/09	Oil and Grease (daily max.)	20 mg/l
2008/09	Fluoride	report kg/day mass loading
2008/09	Fluoride	report mg/l concentration
2008/09	pH	minimum 7.0
2008/09	pH	maximum 9.0
2009/01	Flow	report MGD
2009/01	Oil and Grease (daily max.)	20 mg/l
2009/01	Fluoride	report kg/day mass loading
2009/01	Fluoride	report mg/l concentration
2009/01	pH	minimum 7.0
2009/01	pH	maximum 9.0
2009/02	Flow	report MGD

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2009/02	Oil and Grease (daily max.)	20 mg/l
2009/02	Fluoride	report kg/day mass loading
2009/02	Fluoride	report mg/l concentration
2009/02	pH	minimum 7.0
2009/02	pH	maximum 9.0
2009/03	Flow	report MGD
2009/03	Oil and Grease (daily max.)	20 mg/l
2009/03	Fluoride	report kg/day mass loading
2009/03	Fluoride	report mg/l concentration
2009/03	pH	minimum 7.0
2009/03	pH	maximum 9.0
2009/04	Flow	report MGD
2009/04	Oil and Grease (daily max.)	20 mg/l
2009/04	Fluoride	report kg/day mass loading
2009/04	Fluoride	report mg/l concentration
2009/04	pH	minimum 7.0
2009/04	pH	maximum 9.0
2009/05	Flow	report MGD
2009/05	Oil and Grease (daily max.)	20 mg/l
2009/05	Fluoride	report kg/day mass loading

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2009/05	Fluoride	report mg/l concentration
2009/05	pH	minimum 7.0
2009/05	pH	maximum 9.0
2009/06	Flow	report MGD
2009/06	Oil and Grease (daily max.)	20 mg/l
2009/06	Fluoride	report kg/day mass loading
2009/06	Fluoride	report mg/l concentration
2009/06	pH	minimum 7.0
2009/06	pH	maximum 9.0
2009/07	Flow	report MGD
2009/07	Oil and Grease (daily max.)	20 mg/l
2009/07	Fluoride	report kg/day mass loading
2009/07	Fluoride	report mg/l concentration
2009/07	pH	minimum 7.0
2009/07	pH	maximum 9.0
2009/08	Flow	report MGD
2009/08	Oil and Grease (daily max.)	20 mg/l
2009/08	Fluoride	report kg/day mass loading
2009/08	Fluoride	report mg/l concentration
2009/08	pH	minimum 7.0
2009/08	pH	maximum 9.0
2009/09	Flow	report MGD

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2009/09	Oil and Grease (daily max.)	20 mg/l
2009/09	Fluoride	report kg/day mass loading
2009/09	Fluoride	report mg/l concentration
2009/09	pH	minimum 7.0
2009/09	pH	maximum 9.0
2009/10	Flow	report MGD
2009/10	Oil and Grease (daily max.)	20 mg/l
2009/10	Fluoride	report kg/day mass loading
2009/11	Fluoride	report mg/l concentration
2009/11	pH	minimum 7.0
2009/11	pH	maximum 9.0
2009/12	Flow	report MGD
2009/12	Oil and Grease (daily max.)	20 mg/l
2009/12	Fluoride	report kg/day mass loading
2009/12	Fluoride	report mg/l concentration
2009/12	pH	minimum 7.0
2009/12	pH	maximum 9.0
2010/01	Flow	report MGD
2010/01	Oil and Grease (daily max.)	20 mg/l
2010/01	Fluoride	report kg/day mass loading

Outfall 101 DMR Date (Yr/Mo)	Parameter	Permit Requirement
2010/01	Fluoride	report mg/l concentration
2010/01	pH	minimum 7.0
2010/01	pH	maximum 9.0
2010/02	Flow	report MGD
2010/02	Fluoride	report mg/l concentration
2010/02	pH	minimum 7.0
2010/02	pH	maximum 9.0
2010/03	Flow	report MGD
2010/03	Fluoride	report mg/l concentration
2010/03	pH	minimum 7.0
2010/03	pH	maximum 9.0
2010/04	Flow	report MGD
2010/04	Fluoride	report mg/l concentration
2010/04	pH	minimum 7.0
2010/04	pH	maximum 9.0
2010/05	Flow	report MGD
2010/05	Fluoride	report mg/l concentration
2010/05	pH	minimum 7.0
2010/05	pH	maximum 9.0
2010/06	Flow	report MGD
2010/06	Oil and Grease (daily max.)	20 mg/l
2010/06	Fluoride	report kg/day mass loading
2010/06	pH	minimum 7.0
2010/06	pH	maximum 9.0

EPA Region IX, Guam

NPDES Compliance Evaluation Inspection (CEI)

Name and Location of Facility Inspected Facility Name: Cabras Power Plant Address: No. 178 Cabras Highway City, State, ZIP: Piti, Guam 96915		Entry Date 03/09/10 Entry Time 9:00 AM	Permit Effective Date 01/30/2001
NPDES Permit Number: GU0020001		<input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor	Permit Expiration Date 01/30/2006 Administratively Extended
Name(s) & Title(s) of On-Site Representative(s) Sylvia Ipanag (GPA Engineering Supervisor)	Contact Information: Phone: (671) 648-3217 Fax:	Notified of Inspection? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Name, Title & Address of Responsible Official Sylvia Ipanag (GPA Engineering Supervisor) Guam Power Authority 1911 Route 16 Marmon, BU 96913	Contact Information: Phone: (671) 648-3217 Fax:	Official Contacted? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Inspector(s) Primary: Dan Connally (PG Environmental, LLC) Other(s): Maricar Quezon (GEPA)		Presented Credentials? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Weather Conditions at the Time of the Inspection: Sunny, no recent precipitation	Facility Receiving Water Name: Piti Channel, a tributary to Inner Apra Harbor		
Prepared By: Dan Connally on 3/14/2010 Reviewed By: Wes Ganter on 5/11/10			

US EPA ARCHIVE DOCUMENT

On 3/9/2010, a USEPA contractor inspected the Cabras Power Plant, located on the western tip of Piti Bay on the lagoon side of Cabras Island on the island of Guam. Discharges from the facility are regulated by NPDES Permit No. GU0020001. The primary purpose of the inspection was to determine compliance with the Discharger's NPDES permit. The primary on-site facility representative was Sylvia Ipanag (GPA Engineering Supervisor). The weather at the time of the inspection was sunny, with no signs of recent precipitation.

Introduction

The Cabras Power Plant, owned by Guam Power Authority (GPA) (hereinafter Discharger) and operated by Taiwan Electrical and Mechanical Engineering Services, Inc. (TEMES), has four units with a rated output of 220 megawatts (MW) of electricity.

The four generating units share a common intake structure that is located on the Piti Canal

NPDES Permit No. GU0020001 regulates the discharge of non-contact cooling water from four generating units through Outfall Serial Nos. 001 and 002, and storm water from their storm water collection system around Cabras Units 1 and 2 through Outfall Serial No. 101 from the Facility to Piti Channel, a tributary to Apra Harbor. The discharge of low volume wastes, such as metal cleaning wastes, treatment system brine, and wash water, are not permitted.

Facility Description

The Discharger operates four generating units at the Facility, Units 1 through 4. Units 1 and 2 are steam electric generating units with a generating capacity of 66 MW each. Units 1 and 2 were placed into operation in 1974 and 1975, respectively. Units 3 and 4 are slow speed diesel generating units with a generating capacity of 39.3 MW each. Units 3 and 4 were placed into operation in 1996. At the time of the inspection, Units 1, 3, and 4 were in operation. Unit 2 was down for maintenance.

All four generating units share a common intake structure that is located in Piti Canal. Cooling water for Units 1 and 2 is provided by four circulating water pumps (two per unit, operating simultaneously), each with a rated pumping capacity of 30,000 gallons per minute (gpm); for a total of up to 172.8 million gallons per day (mgd). Units 3 and 4 each have a single circulating water pump rated at 22,660 gpm; for a total of up to 65.2 mgd. A single 45,600 gpm auxiliary pump is available for either or both Units 3 and 4 should one of the primary pumps be out of service. The maximum cooling water volume for all four units is 238 mgd. On the date of the inspection, one of the intake structures for Units 3 and 4 was not operational because the pump and traveling screen had been removed. The intake structure appeared to have been out of service for a minimum of several months.

Water entering the intake structure passes through one of seven sets of bar racks; four bar rack assemblies for Units 1 and 2 and three assemblies for Units 3 and 4, respectively. The Discharger reports in their May 30, 2007 316(b) report to EPA that the four bar rack assemblies for Units 1 and 2 are constructed of 3/8" bar stock on 4" centers and are 8 feet wide, and the three bar racks on Units 3 and 4 are 1/4" bar stock on 3" centers and are 7.75 feet across. The Discharger further reports that the bar racks are approximately 16 feet high. Behind each bar rack is a traveling water screen with 3/8" mesh screens. On the date of the inspection, one of the traveling water screens for Units 3 and 4 had been removed. The description of the bar racks and screens provided by the Discharger appear representative of what was observed during the inspection.

The traveling water screens are equipped with a high pressure seawater wash system which is operated manually by the Discharger periodically when necessary to clean solids from the screens. The screen wash water and removed solids are drained to a collection trough. The end of the collection trough is fitted with an additional screen to capture solids, which are periodically removed and discarded at a landfill. The wash water flows through the collection trough screen and is discharged through an outfall located just in front of the intake structure. It appeared to the inspector that the discharged wash water likely reenters the intake structure as cooling water intake.

After the traveling screens, intake water for Units 1 and 2 is pumped to condensers where it is used to condense the steam exhausted from the turbine back to condensate. Intake water for Units 3 and 4 is pumped through heat exchangers that remove heat produced by the diesel generating equipment. Both these processes are non-contact, which the Discharger claims to only result in the addition of heat to the final non-contact cooling water discharge. The Discharger reports that additives are not added to the cooling water.

All four units discharge the non-contact cooling water to Piti Channel, which flows into Apra Harbor.

The Discharger also discharges storm water through Outfall Serial No. 101 from various locations throughout the Facility. Multiple drainage systems are located on-site, only one of which actually discharges directly to the receiving water through Outfall Serial No. 101. The drainage systems include:

- Cabras 1 and 2 storm drain;
- Cabras 3 and 4 storm drain; and
- Oily water drain piping

The Cabras 1 and 2 storm drain system is the collection system which discharges to the receiving water through Outfall Serial No. 101. The drainage area for Outfall Serial No. 101 includes the area surrounding Cabras Units 1 and 2, the service road in front of the warehouse building, main office and Facility entrance, the service road

down the east side of the Facility between Units 1 and 2 and the central maintenance shop, and the service road south of Units 1 and 2.

Activities observed in this drainage area that may affect storm water quality at the site include:

- Equipment and material storage;
- Leaking pipes;
- Liquid storage in aboveground storage tanks;
- Flammable and hazardous materials storage;
- Loading/unloading liquid materials; and
- Refuse storage.

Storm water runoff from this drainage area is managed through the application of a Best Management Practices (BMP) Plan. The Facility relies on physical berms, containment areas, and other BMPs to achieve effluent limitations for storm water and prevent the contamination of storm water from industrial activities performed on-site.

The Cabras 3 and 4 storm drain system surrounds Units 3 and 4 and provides drainage for the secondary containment for two of the 420,000 gallon above ground storage tanks located on-site. The Cabras 3 and 4 storm drain system discharges directly to the western infiltration pond. However, based on the Facility Drainage Layout Diagram provided by the Discharger, there appears to be drainage route whereby the storm water could discharge to an oil/water separator and then enter the oily water drain piping system (discussed below).

The oily water drain piping system collects oily contact water from the Units 3 and 4 sump pits, lube oil sludge tanks, and the secondary containment for two of the 420,000 gallon above ground storage tanks located on-site (in addition to the two mentioned earlier). A Facility representative stated that contact storm water from berms and trenches from areas located adjacent to Units 1 and 2 are also discharged to this system; although this was not apparent on the Facility Drainage Layout Diagram provided to the inspector. As mentioned above, it appeared to the inspector that the Cabras 3 and 4 storm drain system may also have the ability to discharge to the oily water drain piping system. The oily water drain piping system drains to three oil/water separators; one of which was out of operation on the date of the inspection. The recovered oil is pumped to the on-site waste oil facility, which can store up to 50,000 gallons at a time. The Facility also stores oily waste at this facility from other offsite operations from GPA. Wastewater from the oil water separators is then discharged to the sanitary system. However, based on the available Facility Drainage Layout Diagram provided to the inspector, it appears the wastewater may also be discharged to the western infiltration pond.

Low volume wastes from Units 1 and 2, including brine from the reverse osmosis system which provides high quality water to the boilers, floor drainage, and ground

water infiltration, are pumped to a neutralization pit where pH is adjusted, as necessary, through the addition of caustic. The low volume wastes are then discharged to the western infiltration pond. Low volume wastes from Units 3 and 4, including brine from the reverse osmosis system which provides high quality water to the cooling system for the diesel engine, turbo charger, and air coolers; and floor drainage, are also discharged directly to the western infiltration pond. Low volume wastes can be directed to the sanitary system, however at the time of the inspection the pump station to pump low volume wastes from Units 3 and 4 to the sanitary system was not operational. A Facility representative stated that the pump station to the sanitary system has not been operational for “years”.

The Facility representative stated that metal cleaning wastes were directed to a holding tank and either removed via tanker trucks or burned. This practice was not verified during the inspection.

Monitoring

Effluent monitoring requirements are specified in Parts 1 and 2 of NPDES Permit No. GU0020001. Toxicity monitoring requirements are specified in Part 6 of the Permit.

Sample collection is conducted by a contractor, Environmental Monitors, Inc., 255 Biradan Kamy, Maina, Guam 96910. Sample analysis for pH was said to be performed on-site, however chain of custodies and sampling records for these analysis were not available for review. Sample analysis for all other parameters is performed off-site at a contract laboratory (Food Quality Lab, 3375 Koapeka St., Honolulu, HI 96819). The contractor was not available during the inspection, thus a description of the monitoring procedures are based on the descriptions provided by the Facility representatives and monitoring reports. A copy of a map with the sampling locations was requested from the Discharger, however was not provided prior to completion of this inspection report.

The inspector was unable to confirm the exact locations for sample acquisition due to the absence of the contractor, and the Facility representative was unfamiliar with the sampling locations. However, based on separate monitoring locations indicated on the available chain-of-custodies (COCs), it appeared that Outfall Serial Nos. 001 (for fluoride), 002 (for fluoride), and 101 (for oil and grease and TSS) are sampled separately, prior to mixing in the outfall channel. However, based on monitoring reports and COCs, effluent toxicity monitoring appears to be conducted at a single effluent location, which was not readily identified.

The Discharger is required to monitor influent and effluent temperature continuously. The Discharger was unable to provide evidence that temperature at either the influent or effluent is monitored continuously. A temperature probe was not apparent to the inspector at either the intake structure or the effluent discharge structure.

Monthly receiving water monitoring for temperature for Outfall Serial Nos. 001 and 002 is conducted by the University of Guam, Marine Lab at three locations; two on the edge of the thermal mixing zone, and one site that is reported by the Discharger to be unaffected by the discharge. The thermal receiving water monitoring locations could not be confirmed by the Facility representatives.

The Discharger is required to monitor effluent flow from Outfall Serial Nos. 001, 002, and 101 continuously (permit requires continuous measurement). Flow metering devices were not located at the outfalls. Further, the Discharger could not provide records that would indicate that non-contact cooling water flows are calculated based on pump run times, or by alternative means.

It should be noted that all four quarterly effluent toxicity tests performed by the Discharger in 2009 resulted in “inconclusive” because both the intake and effluent were below acceptable levels of fertilization. The Discharger argues in each toxicity report, *“it is likely that whatever caused the low fertilization came from upstream of the Cabras power plant. Since both the intake and effluent concentrations were shown to be statistically identical and both are significantly out of compliance, it cannot be concluded that the operations at Cabras Power Plant are responsible for the failure of this test”*.

The Discharger is also required to monitor low volume wastes monthly for oil and grease, and quarterly for flow, pursuant to Part 5 of NPDES Permit No. GU0020001. The monitoring location for low volume wastes was not verified during the inspection.

Multiple deficiencies were identified regarding the Discharger’s monitoring procedures and are identified in the ‘Major Findings’ portion of this report.

Records and Reports

As part of the inspection, records, plans, reports, and documentation specifically required by the NPDES permit or Standard Provisions was viewed on site or shortly following the inspection. The on-site review was not a thorough review of each record, plan, or report, and it’s inclusion in the following list as being reviewed does not indicate complete adequacy and acceptance by the permitting agency. The records review is conducted to identify issues with record keeping, verify proper monitoring and reporting practices, identify required reports that have not been completed as specified in the NPDES permit, identify recent effluent limitation exceedances, and identify any other major compliance issues that may become apparent through quick on-site reviews. Records, plans, reports, and documentation requested on the date of the inspection include:

- Copy of the current NPDES permit;
- 12 months of DMRs for 2009 with COCs and lab bench sheets;
- BMP Plan (with employee training records and inspection logs);

- SPCC Plan (active plan was dated 2002, a new inactive draft was dated June 2009);
- Initial Investigation Toxicity Reduction Evaluation (TRE) Workplan;
- On-site spill records for last year;
- Last annual summary of chemical additives;
- Water Quality Monitoring Plan for Thermal Discharges;
- 316(b) Phase I Screening Analysis (dated September 2002)
- 316(b) Phase II Comprehensive Biological Survey (The inspector was provided with a 316(b) Proposal for Information Collection for Cabras Power Plant, and not the results of a comprehensive biological survey.);
- Progress report for fluoride (Part 3 of NPDES Permit No. GU0020001);
- pH calibration records;
- Flow monitoring records; and a
- Site diagram.

Not all of the requested documents were available for review. These findings are summarized in the 'Major Findings' portion of this report.

DMRs for 2009 were reviewed as a component of this inspection. The review included a comparison of reported monitoring results versus requirements and limitations contained within the permit. Permit limit exceedances were identified by the inspector. The DMR evaluation also included a spot check comparison of data points reported in the DMR submitted to USEPA against the laboratory bench sheets documenting the actual analytical results. Inconsistencies were identified and are summarized in the 'Major Findings' portion of this report.

Site Review

A site review was conducted during the inspection. Site reviews are conducted to identify the following:

- Process/production modifications that may be pertinent to the NPDES permit;
- Treatment and collection systems to ensure they are properly maintained and in good operational order;
- Discharge locations, monitoring locations, waste streams, and on-site operations that are inconsistent with the NPDES permit, or irregularities that may be pertinent to the NPDES permit;
- Monitoring locations and methods to ensure they are representative of influent and effluent streams (not possible due to lack of Facility representative's knowledge of the monitoring locations);
- General housekeeping procedures to ensure that they are adequate to prevent/reduce the release of pollutants to the environment (i.e., proper implementation of a BMP Plan);
- Major on-site safety concerns that may interfere with the proper operation and maintenance of the Facility; and

- Any additional information that may be pertinent for determining compliance with NPDES permit requirements or may be pertinent for future NPDES permit renewals.

A municipal supply water line for the fire protection system had ruptured and was observed leaking on-site into a storm drain that discharges to Outfall Serial No. 101. The leaking supply water was observed flowing through a pile of loose dirt, potentially accumulating sediment prior to discharging to the storm drain. A Facility representative stated that this same line break had just been repaired. The Facility representative expected the ruptured line to be fixed by the end of the week.

The intake manifold for Units 3 and 4 was leaking intake cooling water. The intake cooling water was draining to the eastern infiltration pond. The Discharger has not been able to shut down Units 3 and 4 to repair the manifold because Unit 2 is currently down for maintenance and they cannot reduce their generating capacity at this time. The Facility representative stated that he expected Unit 2 would be running by the following weekend and that they would be able to begin fixing the manifold for Units 3 and 4 immediately thereafter.

During the early morning of the inspection, two freshwater storage tanks for the Units 1 and 2 reverse osmosis system overflowed approximately 10,000 gallons into a neutralization pit. The Discharger was using hoses and pumps to pump the commingled municipal supply water and reverse osmosis brine from the neutralization pit to the Cabras 3 and 4 storm drain system, which discharges to the western infiltration pond.

Water from the low temperature cooling system for Units 3 and 4 was observed leaking in the Cabras 3 and 4 storm drain system. Facility representatives state that this had been occurring for approximately 1 year. This wastewater is discharged to the western infiltration pond.

Both the eastern and western infiltration ponds were observed. The western infiltration pond is approximately 25 yards from the receiving water. Although a direct surface water discharge was not observed, it may be possible that the infiltration pond is hydraulically connected to the receiving water and that pollutants are migrating into the receiving water. Discharges to this pond include low volume wastes, process waters, and treated contact storm water.

The eastern infiltration pond is approximately 25 yards from the Piti Channel just downstream of the intake structure. It may be possible that that the infiltration pond is hydraulically connected to the receiving water and pollutants from any discharge to this infiltration pond are migrating into Piti Channel.

Numerous examples of poor housekeeping, failure to implement BMPs were identified and are summarized in the 'Major Findings' portion of this report.

Major Findings

- 1) Part 1 and Part 2 of NPDES Permit No. GU0020001, require the Discharger to conduct continuous "measurement" of the effluent flow from Outfall Serial Nos. 001, 002, and 101.

No flow measurement devices appeared to be located at Outfall Serial Nos. 001, 002, and 101 to continuously monitor flow. In addition, the Discharger was unable to provide pump run times to demonstrate that cooling water flow is calculated using pump run times and pump capacity. The Discharger had reported the same effluent flows for Outfall Serial Nos. 001 and 002 the entire year of 2009 (172.8 mgd for 001; 33.6 mgd for 002). The basis and justification for these reported flows was unclear to the inspector. The Discharger had not reported the effluent flow from Outfall Serial No. 101 during the entire year of 2009.

- 2) Part 1 of NPDES Permit No. GU0020001 establishes a mass effluent limitation for fluoride of 1,350 kg/day and a monthly monitoring requirement for Outfall Serial Nos. 001 and 002.

The Discharger did not report the mass discharge of fluoride from Outfall Serial Nos. 001 and 002 for the entire year of 2009. Further, without proper effluent flow measurements or calculations, the Discharger would be unable to accurately calculate this value.

- 3) Part 1 of NPDES Permit No. GU0020001 establishes continuous monitoring for temperature at the intake structure and Outfall Serial Nos. 001 and 002.

The Discharger did not appear to be conducting continuous temperature monitoring at the intake structure or Outfall Serial Nos. 001 and 002, as required by Part 1 of the Permit. The reported temperature results appear to be from grab samples.

- 4) Part 1 of NPDES Permit No. GU0020001 established weekly monitoring for pH at Outfall Serial No. 101.

The Discharger had not reported pH for Outfall Serial No. 101 throughout the year 2009.

- 5) Standard Provisions to NPDES Permit No. GU0020001 require the Discharger to maintain records of monitoring information, including the date and time of sampling or measurements, and the results of such analyses.

The Discharger was unable to provide supporting data or monitoring information for any of the effluent pH values reported on the 2009 DMRs, including sample results.

The reported pH values for Outfall Serial Nos. 001 and 002 have the same minimum and maximum values from January through October 2009. Without supporting evidence of these values, the inspector suspects that the reported pH values for Outfall Serial Nos. 001 and 002 are not based on actual effluent monitoring results for the time frame of January 2009 through October 2009.

The reported pH values for Outfall Serial Nos. 001 and 002 have the same minimum and maximum values for the month of November (but different than the values reported from January through October 2009). Without supporting evidence of these values, the inspector suspects that the reported pH values are from the commingled effluent, and not directly from the individual outfalls.

- 6) Part 1 and 2 of NPDES Permit No. GU0020001 require monthly monitoring for fluoride at all outfalls and establish effluent limitations for fluoride at Outfall Serial Nos. 001 and 002.

The Discharger reported a result of 0.7 mg/L of fluoride for Outfall Serial Nos. 001 and 002 through the year 2009. These reported results are not consistent with the supplied analytical data for the monitoring periods as reported by Environmental Monitors, Inc (contract laboratory). The reported results for fluoride at Outfall Serial Nos. 001 and 002 do not appear representative of actual test results.

For the month of April, the inaccurate reporting resulted in two unreported effluent limitation exceedances.

Outfall Serial No.	Reported	Actual	Effluent Limitation
001	0.7 mg/L	1.72 mg/L	1.5 mg/L
002	0.7 mg/L	1.58 mg/L	1.5 mg/L

In addition, the Discharger did not sample and report monitoring results for fluoride at Outfall Serial No. 101, as required by Part 2 of the Permit.

- 7) Part 6 of NPDES Permit No. GU0020001 requires the Discharger to monitor effluent toxicity at two separate NPDES sampling locations for cooling water at Outfall Serial Nos. 001 and 002.

Based on the quarterly toxicity reports submitted by the Discharger for 2009, it appears the Discharger is monitoring for toxicity at a commingled location, and not from the individual outfall locations, as specified in the Permit.

- 8) Part 3 of NPDES Permit No. GU0020001 requires the Discharger to submit a progress report to EPA and GEPA documenting efforts to abate elevated fluoride levels within 18 months of the effective date of the permit.

The Discharger was unable to provide documentation demonstrating that the progress report had been submitted, subsequently demonstrating compliance with Part 3 of the Permit.

- 9) Part 5 of NPDES Permit No. GU0020001 requires the Discharger to monitor low volume wastes monthly for flow and report this value with the DMRs.

The Discharger did not report monthly low volume waste flow for the 2009 time frame reviewed during this inspection.

- 10) A municipal supply water line for the fire protection system had ruptured and was observed leaking on-site into a storm drain that discharges to Outfall Serial No. 101.

The Discharger is permitted to discharge only storm water through Outfall Serial No. 101. The Discharge of municipal supply water through Outfall Serial No. 101 is not a permitted discharge.

- 11) Part 14.e of NPDES Permit No. GU0020001 requires the Discharger to submit to USEPA and GEPA by January 28 of each year, an annual summary of the quantities of all chemicals, listed by both chemical and trade names, which are used at the Facility and may potentially be discharged.

The Discharger was unable to provide a summary of the 2009 chemical additives or supporting documentation that such a summary was submitted to USEPA and GEPA by January 28, 2010.

- 12) Part 13 of NPDES Permit No. GU0020001 requires the Discharger to develop and implement a storm water BMP Plan in order to prevent the contamination of storm water originating at the Facility.

- a. Part 13.b of NPDES Permit No. GU0020001 requires that the BMP Plan include specific source identification measures, including:
- i. A detailed site map indicating all storm water runoff collection systems and land disposal/containment areas;
 - ii. A detailed site map showing all materials storage facilities and any construction areas and the associated storm water drainage system;
 - iii. A description of on-site toxic or hazardous materials storage, transport and disposal. Materials described shall include petro-chemical products;
 - iv. A list of significant spills and leaks of toxic or hazardous pollutants, including petro-chemical products, that occurred at the facility over the past five years.

The BMP Plan available for review did not contain a site map (i and ii), a description of on-site toxic and hazardous materials storage (iii), or a list of significant spills and leaks of toxic and hazardous pollutants.

It should be noted that a site map was made available to the inspector that would meet the requirements summarized in sections i and ii of this finding (if updated to include hazardous waste storage area behind maintenance shop), however it was not included as part of the BMP Plan.

- b. Part 13.d.I.a of NPDES Permit No. GU0020001 requires that BMPs be established to ensure that scrap metal, wood, plastic, miscellaneous trash, and industrial scrap and waste are routinely removed from the grounds and properly disposed of.

Part 13.d.I.b of NPDES Permit No. GU0020001 requires that BMPs shall be established to ensure that routine clean up of litter and debris on-site is performed to prevent accumulation and possible discharge to the receiving water.

Part 13.d.I.c of NPDES Permit No. GU0020001 requires that BMPs shall be established to ensure that weather protection is provided for on-site storage areas to prevent direct contact between rainwater and industrial materials.

Part 13.d.I.d of NPDES Permit No. GU0020001 requires that BMPs shall be established to ensure that used batteries, oil, paint, scrap metal, unused machinery and other toxic materials shall be disposed of in a manner that is safe, legal, and prevents storm water contamination.

Part 13.d.II.a of NPDES Permit No. GU0020001 requires that hazardous waste management BMPs shall be established to ensure that hazardous wastes including used paint and batteries be properly disposed of within the guidelines of RCRA.

Used paint cans, a vehicle battery and other industrial debris were observed stored uncovered and uncontained behind the maintenance shop, adjacent to Piti Channel. Due to the location of this finding adjacent to Piti Channel, the inspector believes the potential for contact storm water to reach the receiving water may exist. Facility representatives stated that these materials had been present for over a month. Additional industrial debris, such as empty 55-gallon drums, packaging, floor buffer pads, tires, scrap metal, and materials with oily residue were observed in a storage yard adjacent to the discharge locations.

Twelve full 55-gallon drums of a petroleum product (“DTE Oil Light, ISO 32”) were observed stored on the south side of Units 1 and 2 without secondary containment, in the drainage area for Outfall Serial No. 101.

The secondary containment around an oil tank just south of Units 1 and 2 appeared to be breached, allowing potential infiltration into the ground, or possibly comingle with storm water runoff that may discharge to Outfall Serial No. 101.

The implementation of the BMP Plan is not sufficient to ensure the BMPs required in Part 13.d.I or Part 13.d.II are properly implemented.

- c. Part 13.d.IV.f of NPDES Permit No. GU0020001 requires the Discharger to develop an employee and subcontractor training program emphasizing pollution prevention and implementation of the BMPs.

Part 4.1.6 of the BMP Plan requires weekly and semi-annual employee training on the plan or BMPs contained in the plan.

Employee training records were not available for review. The Discharger was unable to demonstrate that they have been providing employee training consistent with the requirements of the BMP Plan and Part 13.d.IV.f of the Permit. Further, the Facility employee responsible for conducting the weekly inspections stated that he had never received training regarding the BMP Plan in his opinion.

- d. Part 13.e.II of NPDES Permit No. GU0020001 requires the Discharger to establish BMPs to ensure that oil water separators and other storm water management devices such as storm drain catch basins are routinely inspected and cleaned to ensure their proper operation.

The oil water separator located on the southwest side of the Facility, adjacent to the outfall locations, was not operational. Facility representatives indicated that the oil water separator had not been operational for some time.

- e. Part 4.13 of the BMP Plan states that effluent from the Cabras 1 and 2 neutralization pit is discharged to the sanitary sewer system.

The Discharger has the ability to discharge effluent from the Cabras 1 and 2 neutralization pit to the sanitary sewer system under normal operating procedures; however, this effluent is actually discharged to the western infiltration pond. The Facility representative stated that the

the BMP Plan does not accurately describe the current practice utilized at the Facility.

- f. Part 5 of the BMP Plan includes a weekly inspection log that is to be completed weekly to assure the BMP Plan is being implemented correctly and to record progress on specific tasks. The BMP Plan states that the inspection should cover the entire storm water control system, all storage areas and secondary containment, and the grounds of the plant. Within the inspection log, the Discharger must record any findings, previous findings, and recommended corrective actions for each area inspected.

The weekly inspection log for March 1, 2010 was reviewed during the inspection. The inspection log indicated that the area around the maintenance shop was "clean". However, on the date of the inspection, used cans of paint, a vehicle batter, and other debris were observed in this location. The Facility representative stated that this material had been at this location for "greater than a month". This is not consistent with the findings of the March 1, 2010 BMP weekly inspection log.

The inspection log also does not note a significant volume of condensate discharging from the low temperature cooling system (for Units 3 and 4) to Cabras 1 and 2 storm water system which has reportedly been occurring for approximately one year, or a significant amount of debris (discussed in section 12.b of the Major Findings portion of this report) located in the southwest portion of the Facility.

Further, the employee performing the weekly inspections stated that he had not received training pursuant to the BMP Plan or conducting weekly inspections.

Guam Power Authority – Cabras Power Plant (NPDES No. GU0020001) Photo Log
Inspected by: Dan Connally (PG Environmental, LLC) and Maricar Quezon (GEPA)



Photo 1: Overview of the Cabras Power Plant from Google Maps.



Photo 2: Overview of the Cabras Power Plant from Google Maps, with intake structure, outfall channel, western infiltration pond, and Units 1, 2, 3, and 4 identified. Oil water separators are indicated by yellow boxes, however are not labeled.

Guam Power Authority – Cabras Power Plant (NPDES No. GU0020001) Photo Log
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Photo 3: Overview of the Cabras Power Plant from Google Maps, individual outfall locations identified. Note the proximity of the infiltration pond to the receiving water. The inspector is concerned that pollutants from the infiltration pond are migrating to the receiving water.



Photo 4: A pipe rupture was observed onsite, resulting in potable water discharging to the storm water collection system, which discharges to Outfall Serial No. 101.

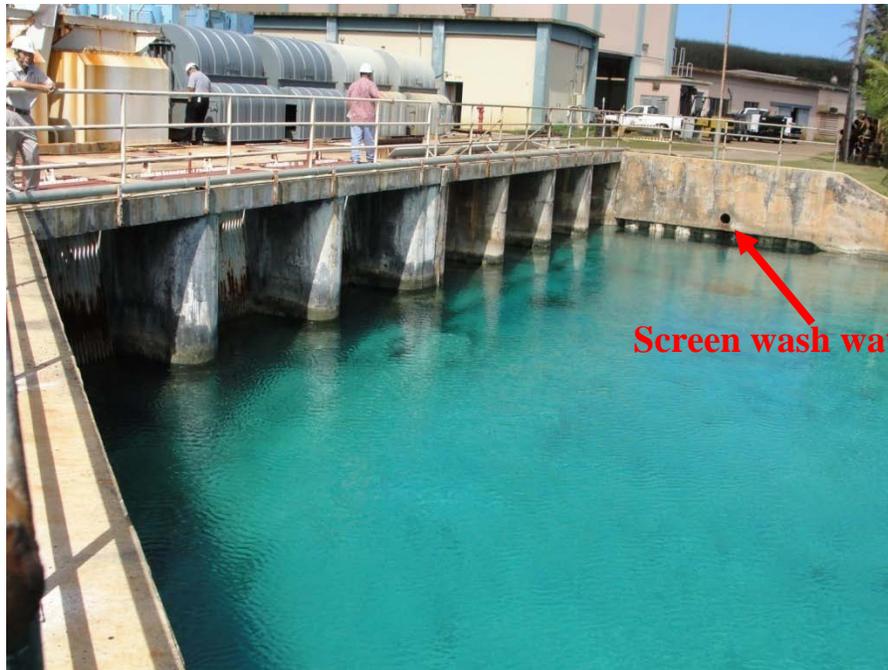
Guam Power Authority – Cabras Power Plant (NPDES No. GU0020001) Photo Log
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Photo 5: The intake manifold for Units 3 and 4 was leaking intake cooling water.



Photo 6: The intake cooling water leaking from the intake manifold was observed draining to the eastern infiltration pond, adjacent to the Piti Channel and intake structure.



Screen wash water discharge

Photo 7: The intake structure for Units 1, 2, 3, and 4. Aquatic life, including various species of fish were observed in the vicinity of the intake structure. The screen wash water discharge location is located directly in front of the bar racks for Units 1 and 2.



Photo 8: Close up photo of the intake structure for Units 1 and 2.

Guam Power Authority – Cabras Power Plant (NPDES No. GU0020001) Photo Log
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Photo 9: Mesh screen used on the traveling water screens, located just after the bar screens.



Photo 10: Traveling screen wash water trough and solids collection basin.

Guam Power Authority – Cabras Power Plant (NPDES No. GU0020001) Photo Log
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Photo 11: Paint observed incorrectly stored behind the maintenance shop and vulnerable to contact with storm water.



Photo 12: Paint, a vehicle battery, and other debris observed incorrectly stored in a location behind the maintenance shop and vulnerable to contact with storm water.

Guam Power Authority – Cabras Power Plant (NPDES No. GU0020001) Photo Log
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Photo 13: Twelve 55-gallon drums of a petroleum product were observed in the drainage area for Outfall Serial No. 101.



Photo 14: The secondary containment for an oil tank located south of Units 1 and 2 was observed to have a constructed breach.

Guam Power Authority – Cabras Power Plant (NPDES No. GU0020001) Photo Log
Inspected by: Dan Connally (PG Environmental, LLC) and Maricar Quezon (GEPA)



Photo 15: The Discharger was observed pumping out a neutralization tank for their reverse osmosis system (due to an overflow of potable water) into Units 3 and 4 storm water drainage system, which discharges to the infiltration pond.



Photo 16: The low temperature cooling system for Units 3 and 4 was observed to be leaking. This area drains to the Units 3 and 4 drainage system, which discharges to the infiltration pond. However, during heavy rain events, this cooling water may be washed further down the service road and enter the drainage area for Outfall Serial No. 101.

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Photo 17: Low temperature cooling water from Units 3 and 4 discharged to the drainage system.



Photo 18: General debris observed stored on-site in a location which is vulnerable to contact with storm water.

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Photo 19: General debris observed stored on-site in a location that is vulnerable to contact with storm water. The items under cover appear to remain vulnerable to storm water contact via storm water flow-through.



Photo 20: General debris observed stored on-site in a location vulnerable to storm water contact.



Photo 21: An oil soaked dolly, observed on-site in a location vulnerable to storm water contact.



Photo 22: Outfall structure.

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Photo 23: Outfall facing toward receiving water.



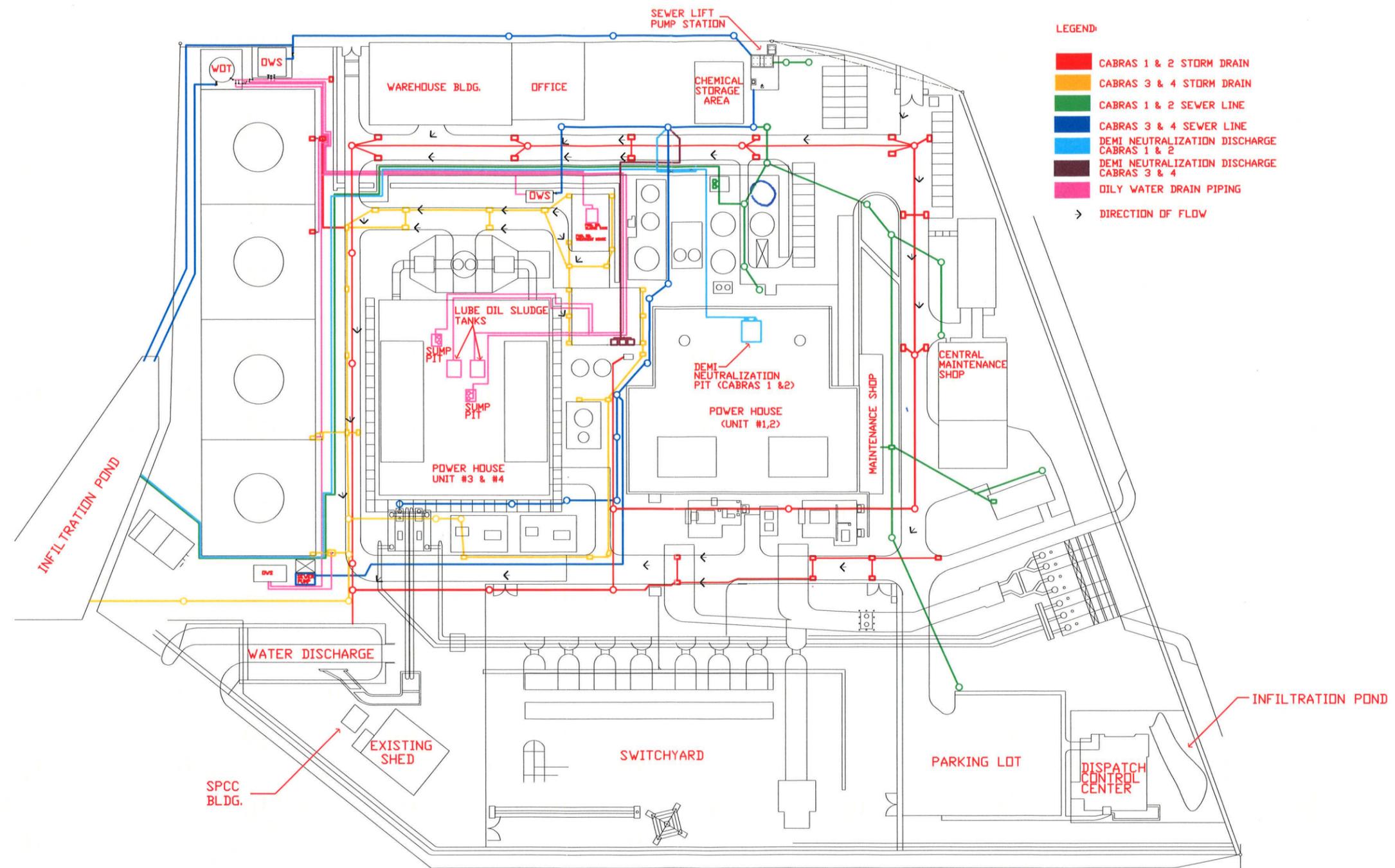
Photo 24: Receiving water at the mouth of the outfall structure.

Guam Power Authority – Cabras Power Plant (NPDES No. GU0020001) Photo Log
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Photo 25: Western infiltration pond.

Figure 1.9-5 Power Plant Drainage Layout



- LEGEND:**
- █ CABRAS 1 & 2 STORM DRAIN
 - █ CABRAS 3 & 4 STORM DRAIN
 - █ CABRAS 1 & 2 SEWER LINE
 - █ CABRAS 3 & 4 SEWER LINE
 - █ DEMI NEUTRALIZATION DISCHARGE CABRAS 1 & 2
 - █ DEMI NEUTRALIZATION DISCHARGE CABRAS 3 & 4
 - █ DAILY WATER DRAIN PIPING
 - DIRECTION OF FLOW

NOT TO SCALE

PROJECT TITLE :	DESIGN BY:	REVISIONS	BY	DATE	OWNER:
	CABRAS FACILITY RESPONSE PLAN	MCP			GPA
SHEET CONTENTS:	APPRD BY:				LOCATION:
	FACILITY DRAINAGE LAYOUT				CABRAS ISLAND GUAM
		DATE:			CONTRACTOR:
	SCALE:	AS SHOWN			

US EPA ARCHIVE DOCUMENT



FACT SHEET

**WHAT SMALL ENTITIES
SHOULD KNOW ABOUT
REGULATORY FLEXIBILITY
ACT AND THE SMALL
BUSINESS REGULATORY
ENFORCEMENT FAIRNESS
ACT**

Why should I be interested in RFA/SBREFA?

EPA has an ongoing commitment to minimize the burden of our regulations on small entities to the extent we can while still meeting our statutory requirements. The Regulatory Flexibility Act (RFA), as amended by Small Business Regulatory Enforcement Fairness Act (SBREFA), provides small entities with an expanded opportunity to participate in the development of certain regulations.

What is SBREFA?

SBREFA was signed into law on March 29, 1996, and contains five distinct sections:

- **Subtitle A—Regulatory Compliance Simplification:** Among other things, requires the agency to publish Small Entity Compliance Guides that are written in plain language and explain the actions a small entity must take to comply with a rule or group of rules.
- **Subtitle B—Regulatory Enforcement Reforms:** Requires agencies to support the rights of small entities in enforcement actions, specifically providing for the reduction, and in certain cases, the waiver of civil penalties for violations by small entities.
- **Subtitle C—Equal Access to Justice:** Provides small businesses with expanded authority to go to court to be awarded attorneys' fees and costs when an agency has been found to be excessive in enforcement of federal regulations.
- **Subtitle D—Regulatory Flexibility Act Amendments:** Provides small entities with expanded opportunities to participate in the development of certain regulations.
- **Subtitle E—Congressional Review of Agency Rulemaking:** Agencies generally must provide Congress and the General Accounting Office with copies of all final rules and supporting analyses. Congress may decide not to allow a rule to take effect.

How does SBREFA affect EPA rulemaking?

SBREFA established certain formal procedural and analytical requirements (outlined below) for rules with the potential to impose a significant economic impact on a substantial number of small entities. But EPA also considers the concerns of small entities in the more frequent cases where impacts on small entities are more modest, even though SBREFA doesn't require it.

What does RFA/SBREFA require for proposed rules?

Initial Regulatory Flexibility Analysis. Generally, the RFA requires EPA to prepare an Initial Regulatory Flexibility Analysis (IRFA) for each proposed rule unless the rule will not have a significant economic impact on a substantial number of small entities. A regulatory flexibility analysis examines the type and number of small entities potentially subject to the rule, recordkeeping and compliance requirements, and significant regulatory alternatives, among other things.

What does RFA/ SBREFA require for final rules?

Small Business Advocacy Review Panel. When an IRFA is required, EPA must also convene a Small Business Advocacy Review Panel before proposing a rule. EPA's Small Business Advocacy Chair convenes each Panel, which includes representatives from the Small Business Administration, the Office of Management and Budget, and EPA. A Panel conducts its own outreach to Small Entity Representatives likely to be subject to the rule and prepares a report to the Administrator of EPA on ways to reduce the potential impact of the rule on small entities. Each Panel's report becomes part of the rulemaking record for the proposed rule.

Final Regulatory Flexibility Analysis. When EPA issues a rule that may have a significant economic impact on a substantial number of small entities, we must prepare a Final Regulatory Flexibility Analysis (FRFA). The elements of a FRFA are similar to those of an IRFA, outlined above. In addition, each FRFA must summarize the significant issues raised by public comments on the IRFA, assess these issues, and describe any changes made in response to the comments.

Small Entity Compliance Guide. When a FRFA is required, EPA must also publish Small Entity Compliance Guides that are written in plain language and explains the actions a small entity must take to comply with a rule or group of rules.

What is the progress to date?

- EPA has completed 30 SBAR Panels in cooperation with SBA and OMB. In each case, the Panel recommended changes to the rule that would reduce impacts on small entities.
- EPA maintains a website dedicated to RFA/SBREFA issues: www.epa.gov/sbrefa. The primary purpose of the site is to provide public access to information and documents produced for, or directly related to, the Agency's implementation of SBREFA.
- Small Entity Compliance Guides are available on the RFA/SBREFA website.
- In March 1998, EPA delivered to Congress reports on SBREFA Section 223 - Penalty Reduction Program for Small Entities and SBREFA Section 213 - Informal Guidance Program. These reports are also available from the SBAC staff or from the RFA/SBREFA website.
- To date, EPA has submitted approximately 5,400 documents to Congress under the Congressional Review Act.

**Where can I get
more
information?**

Several EPA documents are available that can provide more information on the RFA/SBREFEA, the Agency's small entity compliance assistance efforts and the elements of a regulatory flexibility analysis. These documents and further assistance with any RFA/SBREFEA questions are available from the SBAC, SBAC Staff, or from the RFA/SBREFEA website, listed below.

Small Business Advocacy Chair
Alexander Cristofaro

Small Business Advocacy Chair Staff

Lanelle Wiggins, Team Leader

(202) 566-2372; wiggins.lanelle@epa.gov

Lakeshia Walker

(202) 564-6571; walker.lakeshia@epa.gov

Caryn Muellerleile

(202) 564-2855; muellerleile.caryn@epa.gov

Nathaniel Jutras

(202) 564-0301; jutras.nathaniel@epa.gov

RFA/SBREFEA Website
www.epa.gov/sbrefa