# UNITED STATES DISTRICT COURT DISTRICT COURT OF THE VIRGIN ISLANDS DIVISION OF ST. THOMAS AND ST. JOHN

UNITED STATES OF AMERICA,	)	
Plaintiff,	)	
v.	)	Civil Action No. 3:14-cv-00086-CVG-RM
VIRGIN ISLANDS WATER AND POWER AUTHORITY	)	
Defendant.	) )	

**CONSENT DECREE** 

# TABLE OF CONTENTS

I.	JURISDICTION AND VENUE	6
II.	APPLICABILITY	6
III.	DEFINITIONS	7
IV.	CIVIL PENALTY	. 11
V.	COMPLIANCE REQUIREMENTS	. 12
VI.	REPORTING REQUIREMENTS	. 42
VII.	STIPULATED PENALTIES	. 46
VIII.	FORCE MAJEURE	. 57
IX.	DISPUTE RESOLUTION	. 60
X.	INFORMATION COLLECTION AND RETENTION	. 62
XI.	EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS	. 64
XII.	COSTS	. 66
XIII.	NOTICES	. 66
XIV.	EFFECTIVE DATE	. 68
XV.	RETENTION OF JURISDICTION	. 68
XVI.	MODIFICATION	. 68
XVII.	TERMINATION	. 69
XVIII.	PUBLIC PARTICIPATION	. 70
XIX.	SIGNATORIES/SERVICE	. 70

# Case: 3:14-cv-00086-CVG-RM Document #: 16-1 Filed: 09/24/15 Page 3 of 91

XX.	INTEGRATION	70
XXI.	FINAL JUDGMENT	71
XXII.	APPENDICES	71

WHEREAS, Plaintiff United States of America, on behalf of the United States Environmental Protection Agency ("EPA"), filed a complaint on October 30, 2014, pursuant to Sections 113, 110, 111, and 112, 114, 167, 502(a), of the Clean Air Act ("CAA" or "Act"), 42 U.S.C. §§ 7413, 7410, 7411, and 7412, 7477, 7661(a), alleging that Defendant Virgin Islands Water and Power Authority ("VIWAPA"), violated the Virgin Island Air Pollution Control Act Rules and Regulations ("VI-APCAR&R") Section 204-22(a) and (b) that EPA approved pursuant to Section 110 of the Act, 42 U.S.C. § 7410, requirements of the New Source Performance Standards ("NSPS") promulgated pursuant to Sections 111(b)(1)(B) and 114(a) of the Act, 42 U.S.C. §§ 7411(b)(1)(B) and 7414(a), conditions in a permit issued pursuant to Section 206-20 of the VI-APCAR&R, conditions in permits issued pursuant to the Prevention of Significant Deterioration ("PSD") regulations and provisions of Part C of Subchapter I of the Act, 42 U.S.C. §§ 7470 – 7492, conditions in permits issued pursuant to provisions of the VI-APCAR&R Sections 206-51 through 206-92, which is the EPA-approved U.S. Virgin Islands' ("VI") Title V Operating Permit Program, and provisions of Title V of the Act, § 7661a of the Act, 42 U.S.C. § 7661a at its Randolph Harley Generating Facility on the Island of St. Thomas in the U.S. Virgin Islands ("St. Thomas Facility"); and alleging VIWAPA violated National Emission Standards for Hazardous Air Pollutants and permits issued pursuant to 206-61(d) of the VI-APCAR&R and Title V of the Act, 42 U.S.C. § 7661a at its Cruz Bay Facility on the Island of St. John in the U.S. Virgin Islands ("St. John Facility").

WHEREAS, EPA issued two Notices of Violation ("NOV") for the St. Thomas Facility pursuant to Section 113(a)(1) of the Act, 42 U.S.C. § 7413(a)(1), on November 10, 2010 and May 7, 2014 for violations of permits issued pursuant to the PSD provisions of Part C of Subchapter I of the Act, 42 U.S.C. §§ 7470 – 7492.

WHEREAS, the Complaint against Defendant alleges failures to operate required emission controls and monitoring systems, comply with emissions limits, perform required tests and audits, operate monitoring devices, maintain sufficient data availability, and accurately report noncompliance at the St. Thomas Facility; and alleges failures to perform required tests, comply with the St. Thomas Title V Operating Permit, and timely submit a Title V Operating Permit renewal application at the St. John Facility.

WHEREAS, on July 25, 2013, Defendant entered into a contract with Vitol Virgin Islands Corp. ("Vitol") with respect to the supply and storage of LPG and the conversion of Units 15, 18 and 23 to enable VIWAPA to burn LPG in addition to oil.

WHEREAS, the Vitol contract, subject to certain exceptions set forth therein, requires that after the conversion of a Unit is completed, when LPG is available, the units capable of burning LPG collectively shall burn LPG to generate no less than eighty-five percent (85%) of all kilowatt hours from converted units over the course of any given calendar year.

WHEREAS, the Unit 22 combustion turbine is not currently operational and will not Startup unless and until a replacement engine is installed, which will occur no earlier than May, 2016. If the Defendant elects to replace Unit 22 with a new unit, that unit will be required to be independently permitted.

WHEREAS, if Defendant purchases Unit 25, it will convert the Unit to enable it to burn LPG as the primary fuel.

WHEREAS, Defendant does not admit any liability to the United States arising out of the transactions or occurrences alleged in the Complaint. The United States and the Defendant agree that settlement without further litigation and without admission or adjudication of any issue of fact or law is the most appropriate means of resolving the action.

WHEREAS, the Parties agree, and the Court by entering this Consent Decree finds, that this Consent Decree has been negotiated by the Parties in good faith and will avoid litigation between the Parties regarding the St. Thomas Facility and the St. John Facility, and that this Consent Decree is fair, reasonable, and in the public interest.

NOW, THEREFORE, before the taking of any testimony, without the adjudication or admission of any issue of fact or law, and with the consent of the Parties, IT IS HEREBY ADJUDGED, ORDERED, AND DECREED as follows:

# I. JURISDICTION AND VENUE

- 1. This Court has jurisdiction over the subject matter of this action, pursuant to 28 U.S.C. §§ 1331, 1345, and 1355 and 1367 and Sections 113(b) and 304(a) of the CAA, 42 U.S.C. §§ 7413(b) and 7604(a), and over the Parties. Venue lies in this District pursuant to Sections 113(b) and 304(c) of the Act, 42 U.S.C. §§ 7413(b) and 7604(c) and 28 U.S.C. §§ 1391 (b) and (c) and 1395(a), because the violations alleged in the Complaint occurred in this District. For purposes of this Decree, or any action to enforce this Decree, Defendant consents to the Court's jurisdiction over this Decree and any such action over Defendant and consents to venue in this judicial district.
- 2. For purposes of this Consent Decree, Defendant agrees that the Complaint states claims upon which relief may be granted pursuant to Sections 113, 502(a), 167, 111 and 112 of the CAA, 7413, 7661(a), 7477, 7411 and 7412.

# II. <u>APPLICABILITY</u>

3. The obligations of this Consent Decree apply to and are binding upon the United States and upon Defendant and any successors, assigns, or other entities or persons otherwise bound by law.

- 4. No transfer of ownership or operation of the St. Thomas Facility or the St. John Facility, whether in compliance with the procedures of this Paragraph or otherwise, shall relieve Defendant of its obligation to ensure that the terms of the Decree are implemented. At least 30 Days prior to such transfer, Defendant shall provide a copy of this Consent Decree to the proposed transferee and shall simultaneously provide written notice of the prospective transfer, together with a copy of the proposed written agreement, to EPA Region 2, the United States Attorney for the District of the Virgin Islands, and the United States Department of Justice, in accordance with Section XIII (Notices). Any attempt to transfer ownership or operation of the St. Thomas Facility or the St. John Facility without complying with this Paragraph constitutes a violation of this Decree.
- 5. Defendant shall provide a copy of this Consent Decree to all officers, employees, and agents whose duties might reasonably include compliance with any provision of this Decree, as well as to any contractor retained to perform work required under this Consent Decree.

  Defendant shall condition any such contract upon performance of the work in conformity with the terms of this Consent Decree.
- 6. In any action to enforce this Consent Decree, Defendant shall not raise as a defense the failure by any of its officers, directors, employees, agents, or contractors to take any actions necessary to comply with the provisions of this Consent Decree.

# III. <u>DEFINITIONS</u>

7. Terms used in this Consent Decree that are defined in the CAA or in regulations promulgated pursuant to the Act shall have the meanings assigned to them in the Act or such regulations, unless otherwise provided in this Consent Decree. Whenever the terms set forth below are used in this Consent Decree, the following definitions shall apply:

- a. "Capacity Performance Testing" shall mean testing used to evaluate the aero-thermodynamic performance of the gas turbine and to guarantee the machine's capacity and heat rate at specific conditions;
  - b. "CEMS" shall mean continuous emissions monitoring system;
- c. "Clean Air Act" or "the Act" shall mean the federal Clean Air Act, 42 U.S.C. §§ 7401 7671q, and its implementing regulations;
- d. "Complaint" shall mean the complaint filed by the United States in this action;
- e. "Consent Decree" or "Decree" shall mean this Decree and all appendices attached hereto which are listed in Section XXII (Appendices);
- f. "Converted Units" shall mean Unit 15, Unit 18, Unit 23 and any other unit at the St. Thomas Facility that has achieved Substantial Completion.
  - g. "COMS" shall mean continuous opacity monitoring system;
- h. "CGAs" shall mean cylinder gas audits as defined in 40 C.F.R. Part 60, Appendix F, Condition 5.1.2;
- i. "Date of Lodging" shall mean the date on which this Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the District of the Virgin Islands Division of St. Thomas and St. John;
- j. "Day" shall mean a calendar day unless expressly stated to be a business day. In computing any period of time under this Consent Decree, where the last day would fall on a Saturday, Sunday, federal or U.S. Virgin Island holiday, the period shall run until the close of business of the next business day;
  - k. "Defendant" and "VIWAPA" shall mean the Virgin Islands Water And

Power Authority;

- 1. "EPA" shall mean the United States Environmental Protection Agency and any of its successor departments or agencies;
- m. "Effective Date" shall have the definition provided in Section XIV ("Effective Date");
- n. "HRSG 21" shall mean the heat recovery steam generator that recovers exhaust heat from Unit 15 and/or Unit 18 to produce steam;
- o. "Malfunction" shall mean, as specified in 40 C.F.R. § 60.2, "any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions."
- p. "Paragraph" shall mean a portion of this Decree identified by an Arabic numeral;
  - q. "Parties" shall mean the United States and Defendant;
- r. "PSD Permits" refer to the St. Thomas Consolidated PSD Permit, issued by EPA on February 20, 2007 and modified on June 18, 2007 and September 23, 2013, for Units 15, 18, 22 and the Unit 23 PSD Permit, issued by EPA on September 8, 2004 and amended on October 21, 2004;
- s. "Renewables" shall mean electricity produced from solar, wind, biogas, geothermal, biomass, low-impact hydro and any other emerging technologies that VIWAPA meters and that is fed to the St. Thomas power grid. Renewables shall not mean electricity produced from waste to energy facilities.
  - t. "RATAs" shall mean Relative Accuracy Test Audits;

- u. "Section" shall mean a portion of this Decree identified by a roman numeral:
- v. "Shutdown" shall mean the cessation of operation of equipment for any purpose;
- w. "St. John Facility" shall mean Defendant's Cruz Bay Facility located on the island of St. John, U.S. Virgin Islands;
- x. "St. John Title V Operating Permit" shall mean the Title V Operating

  Permit issued to the St. John Facility by the Virgin Islands Department of Planning and Natural

  Resources ("VIDPNR") on March 3, 2015;
- y. "St. Thomas Facility" shall mean Defendant's Krum Bay Generating Facility located on the island of St. Thomas, U.S. Virgin Islands;
- z. "St. Thomas Title V Operating Permit" shall mean the Title V Operating Permit issued to the St. Thomas Facility by VIDPNR on December 31, 2003 and/or any renewal Title V Operating Permit(s) issued to the St. Thomas Facility subsequently;
- aa. "Startup" shall mean the setting in operation of equipment for any purpose.
- bb. "Substantial Completion" shall mean that a Converted Unit is capable and mechanically able to burn LPG, which shall be deemed to occur when: 1) storage tanks have been loaded with LPG, 2) LPG can be continuously supplied to the Converted Unit, and 3) the Converted Unit has successfully completed commissioning (as set forth in Sections 7.04 and 7.05 and Exhibit B of the July 25, 2013 contract with Vitol attached as Appendix A). Until termination of the Vitol contract, in order for commissioning to be deemed complete, VIWAPA and Vitol shall have certified completion, with only "non-critical" punch list items remaining to

be addressed, and VIWAPA shall have issued a "Certificate of Substantial Completion," as provided in Sections 7.04 and 7.05 of that contract.

- cc. "Unit 14," "Unit 15," "Unit 18," "Unit 22," "Unit 23," and "HRSG 21" refer to the emission units identified as Units 14, 15, 18, 22, 23, and HRSG 21 respectively, in the St. Thomas Title V Operating Permit and the PSD Permits. "Unit 25" refers to the emission unit identified as Unit 25 in the Unit 25 Operating Permit;
- dd. "Unit 25 Operating Permit" shall mean the permit VIDPNR issued on March 15, 2012 authorizing VIWAPA to construct and operate Unit 25; and
- ee. "United States" shall mean the United States of America, acting on behalf of the EPA.

#### IV. CIVIL PENALTY

- 8. Within 30 Days after the Effective Date, Defendant shall pay the sum of \$1,300,000.00 as a civil penalty, together with interest accruing from the Effective Date. Interest on the civil penalty shall accrue at the rate specified in 28 U.S.C. § 1961 as of the date of payment.
- 9. Defendant provided financial information that demonstrated Defendant has a limited ability to pay civil penalties at this time. Therefore, Defendant shall pay the penalty amount in four installment payments plus interest. Defendant shall pay the first payment of \$400,000 within 30 days of the Effective Date, together with interest from the Effective Date. Defendant shall pay the second, third, and fourth payments respectively, each in the amount of \$300,000, together with interest from the Effective Date no later than June 30, 2016, June 30, 2017, and January 30, 2018.
  - 10. Defendant shall pay the civil penalty due by FedWire Electronic Funds Transfer

("EFT") to the U.S. Department of Justice, in accordance with written instructions to be provided to Defendant, following entry of the Consent Decree, by the Financial Litigation Unit of the U.S. Attorney's Office for the District of Virgin Islands. At the time of payment, Defendant shall send a copy of the EFT authorization form and the EFT transaction record, together with a transmittal letter, which shall state that the payment is for the civil penalty owed pursuant to the Consent Decree in *United States v. Virgin Islands Water and Power Authority*, and shall reference the civil action number 3:14 cv – 00086 and DOJ case number 90-5-2-1-10424, to the United States in accordance with Section XIII (Notices); by email to

<u>CINWD\_Acctsreceivable@epa.gov</u>; and by mail to:

EPA Cincinnati Finance Office 26 Martin Luther King Drive Cincinnati, Ohio 45268

11. Defendant shall not deduct any penalties paid under this Decree pursuant to this Section or Section VII (Stipulated Penalties) in calculating its federal income tax.

# V. <u>COMPLIANCE REQUIREMENTS</u>

#### 12. St. Thomas Facility

- a. With respect to the St. Thomas Facility, Defendant shall comply with all applicable provisions of the Act, all applicable requirements of the NSPS, and the Virgin Island State Implementation Plan ("VI SIP"), as well as conditions in the Unit 25 Operating Permit, the PSD Permits and the St. Thomas Title V Operating Permit.
- b. If VIWAPA purchases Unit 25, which requires a water injection system, and VIWAPA is then required to install CEMS and/or COMS, Unit 25 shall be subject to the relevant requirements of Paragraphs 14, 15, 16, 17, 18 and 19 and relevant requirements in Sections VI (Reporting Requirements) and VII (Stipulated Penalties).

- c. If VIWAPA refurbishes Unit 14 and the refurbishment triggers PSD review or NSPS applicability and the refurbishment results in Unit 14 becoming subject to a requirement to install a water injection system, CEMS and/or COMS, then Unit 14 shall be subject to the relevant requirements of Paragraphs 14, 15, 16, 17, 18 and 19 and relevant requirements in Sections VI (Reporting Requirements) and VII (Stipulated Penalties).
- d. If VIWAPA replaces Unit 14, 22 and/or 25, with a similar unit(s), and the replacement triggers PSD review or NSPS applicability and the replacement results in the requirement to install a water injection system, CEMS, and/or COMS, the replacement unit(s) shall be subject to the relevant requirements of Paragraphs 14, 15, 16, 17, 18 and 19 and relevant requirements in Sections VI (Reporting Requirements) and VII (Stipulated Penalties).
- e. If VIWAPA refurbishes or purchases a unit that burns LPG/LNG, that unit(s) shall be subject to the requirements of Paragraph 13.
- f. Within 30 days of VIWAPA's decision to either purchase, refurbish or replace Units 14, 22 and/or 25, VIWAPA shall a) send written notice to the United States in accordance with Section XIII (Notices), of the decision and b) include in Quarterly Reports required under Section VI (Reporting Requirements), documentation pertaining to bids, contracts, scheduling and implementation.

# 13. LPG/LNG Requirements at the St. Thomas Facility

- a. Requirements for all Converted Units
- i. Beginning on the first Day of the first full month after Substantial Completion of more than one Converted Unit, for each 12-month rolling average period, the kilowatt hours ("kWh") VIWAPA generates from all Converted Units while burning LPG/LNG and the kWh VIWAPA generates from Renewables shall be a minimum of eighty-five percent

(85%) of the total kWh generated from the Converted Units and the kWh generated from Renewables.

ii. Beginning on the first Day of the first full month after Substantial Completion of more than one Converted Unit, VIWAPA shall calculate monthly, the 12-month rolling average percent kWh generated by the Converted Units while burning LPG/LNG, and the kWh generated by Renewables. From the first day of the first full month after an additional Converted Unit has achieved Substantial Completion and has begun to burn LPG/LNG, VIWAPA shall include the kWh generated from the additional Converted Unit when calculating the 12-month rolling average percent.

iii. VIWAPA shall use the following equation to calculate the 12-month rolling average percent kWh from all Converted Units while burning LPG/ LNG and the kWh from Renewables:

$$P = \frac{kWh_{lpg} + kWh_r}{kWh_{lpg} + kWh_{fuel\ oil} + kWh_r} \times 100$$

Where:

P = Percent kWh generated from Renewables and from all Converted Units while burning LPG/ LNG for the past 12 months

 $kWh_{lpg}$  = Total kWh generated from all Converted Unit(s) while burning LPG/LNG during the past 12 months.

 $kWh_{fuel\ oil}$  = Total kWh generated from all Converted Unit(s) while burning fuel oil during the past 12 months.

 $kWh_r$ = Total kWh generated from Renewables during the past 12 months.

# b. Requirement for each Converted Unit

i. Beginning on the first Day of the first full month after Substantial Completion of each Converted Unit, for each 12-month rolling period, VIWAPA shall generate a minimum of sixty-five percent (65%) of kWh generated from each Converted Unit while burning

LPG/LNG.

- ii. Beginning on the first full month after Substantial Completion of each Converted Unit, VIWAPA shall calculate, monthly, the 12-month rolling average percent kWh generated by each Converted Unit while burning LPG/LNG.
- iii. VIWAPA shall use the following equation to calculate the 12-month rolling average percent kWh generated from each Converted Unit while burning LPG/LNG:

$$P = \frac{kWh_{lpg}}{kWh_{lpg} + kWh_{fuel\ oil}} \times 100$$

Where:

*P* = Percent kWh generated from each Converted Unit while burning LPG/ LNG for the past 12 months.

 $kWh_{lpg}$  = Total kWh generated from each Converted Unit while burning LPG/LNG during the past 12 months.

*kWh*<sub>fuel oil</sub> = Total kWh generated from each Converted Unit(s) while burning fuel oil during the past 12 months.

- c. Requirement for website identification. At the fifteenth Day of each month until termination of this Consent Decree, on its website accessible through a link on its home page, VIWAPA shall identify the kWh of power generated by Renewables and the kWh of power generated while LPG/LNG and while burning fuel oil during the preceding month at the St. Thomas Facility.
- d. <u>Requirement for request to permitting authority</u>. No later than 150 Days after the Date of Lodging, VIWAPA shall:
- i. Submit a request to the permitting authority, VIDPNR, to include in the Title V Operating Permit:
  - (1) the requirements included in 13.a and b above, until

termination of the Consent Decree;

- (2) the requirement that Units 15, 18, 22, and 23 be limited to burn 40 million gallons of fuel oil each 12-month rolling period after termination of the Consent Decree as a state operating permit Title I requirement subject to force majeure and in a force majeure event, subject to other applicable permit limits; and
- ii. Concurrently submit copies of the request, required by Paragraph d.i above, to the United States in accordance with Paragraph 78.
- 14. <u>St. Thomas Spare Parts Inventory Program for the Water Injection Systems and Continuous Monitoring Systems</u>
- a. VIWAPA submitted, and on August 19, 2015 EPA approved, the St.

  Thomas Spare Parts Inventory Program for the water injection systems for Units 15, 18, and 23 and for the continuous monitoring systems (CEMS/COMS) for Units 15, 18, 23 and the HRSG 21.
- b. On or before the Startup of Unit 22, Defendant shall notify the United States in accordance with Section XIII (Notices) of its intent to Startup Unit 22. Within 60 Days of Startup, Defendant shall submit amendments to the Spare Parts Inventory Program, obtain spare parts for Unit 22 and comply with this Paragraph.
- c. The St. Thomas Spare Parts Inventory Program<sup>1</sup> identifies spare parts necessary to be kept at VIWAPA's St. Croix Facility or St. Thomas Facility to enable the St. Thomas Facility to properly operate and maintain the water injection systems and the continuous monitoring systems.

<sup>&</sup>lt;sup>1</sup> The St. Thomas Spare Parts Inventory Program is similar to the St. Croix Spare Parts Inventory Program required by the consent decree in Civil Action No. 2013-CV-00028 for VIWAPA's St. Croix Facility.

- d. The St. Thomas Spare Parts Inventory Program is designed to ensure minimum downtime in the event of a water injection system or continuous monitoring system failure.
- e. The St. Thomas Spare Parts Inventory Program shall contain, at a minimum, the following: a computerized Spare Parts Inventory Tracking System ("SPITS") that indicates, for each Unit, the following information for each hardware component included in the St. Thomas Spare Parts Inventory Program:
- i. the location of replacement components in the St. Thomas Spare
   Parts Inventory;
- ii. the identification of the manufacturer(s) from whom each component can be procured;
- the replacement component in the St. Thomas Spare Parts Inventory;
- iv. the minimum quantity of each replacement component maintained in the St. Thomas Spare Parts Inventory at which the part must be reordered. This number shall be determined by evaluating, at the very least, the lead time for procurement and the frequency at which each component is required to be replaced in the equipment. VIWAPA shall procure spare parts at the time or before the inventory reaches this minimum quantity; and
- v. VIWAPA shall also ensure that all necessary parts are always on hand at VIWAPA's St. Croix or St. Thomas Facilities. For purposes of this paragraph and Paragraph 14.i, a spare part shall be deemed to be "procured" when VIWAPA has placed the order for the part with the vendor, and has made all payments required by the vendor before the vendor will ship the part to VIWAPA.

- f. By the Date of Lodging and thereafter until termination of the Consent Decree, VIWAPA shall develop, maintain, and retain the following lists and/or logs with respect to the components in the St. Thomas Spare Parts Inventory:
- i. a list/log of the frequency at which such hardware components are required to be replaced;
- ii. a list/log of the dates of procurement and dispatch for each component replaced from the Date of Lodging until termination of the Consent Decree. Such list/log shall specify the reason for replacement (e.g., preventive maintenance, excessive wear, etc.);
- iii. a list indicating components that may only be replaced during an outage;
- iv. a list indicating components that can be replaced without conducting an outage of a Unit and specifying which of those components can be replaced without interference with a Unit's ability to comply with all applicable requirements during the process of replacement; and
- v. a list of all spare part components covered under the St. Thomas

  Spare Parts Inventory Program that are maintained at VIWAPA's St. Croix or St. Thomas

  Facilities, which are required to maintain the water injection systems and continuous monitoring systems; and a list of which spare part components are not maintained at or above the minimum required by the St. Thomas Spare Parts Inventory Program at either the St. Croix or St. Thomas

  Facilities and the reasons why they are unable to be maintained at or above the minimum at either the St. Croix or St. Thomas Facilities.
  - g. By the Date of Lodging, VIWAPA shall maintain and track a spare parts

inventory and provide training, as follows:

- i. VIWAPA shall implement two modules of the IBM Maximo system, version 7.5, for the issuance of work orders for maintenance and inventory management for the spare parts for the water injection systems relating to Units 15, 18, 22 and 23 and the CEMS/COMS relating to Units 15, 18, 22, 23 and HRSG 21;
- ii. VIWAPA shall include basic data on the number and location of the components identified in Appendix B (spreadsheets containing essential parts for the water injection systems and the CEMS/COMS) in the Maximo Inventory Management module, which shall be available to EPA in electronic form upon request;
- iii. VIWAPA shall ensure that the Maximo Work Order module accesses the Inventory Management module and records the spare part components that have been removed from the inventory;
- iv. VIWAPA shall retain a contractor to train VIWAPA personnel on the two modules of the IBM Maximo system, Version 7.5, to help populate the Inventory Management module with the CEMS/COMS and NO<sub>X</sub> water injection system parts data from the warehouse and storage yards inside of the plant(s) on either St. Croix or St. Thomas;
- v. VIWAPA shall ensure that the part number/stock number, part description and combined quantity on hand as tracked in the water injection system Spare Parts Inventory Program and the CEMS/COMS Spare Parts Inventory Program spreadsheets (attached as Appendix B) are also tracked in Maximo;
- vi. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall report on its compliance with the Spare Parts Inventory Program requirements based upon the information being tracked in the spreadsheets (attached as

Appendix B) and provide the spreadsheets for the quarter in electronic form to EPA upon request;

- vii. In instances, if any, where the Maximo tracking and spreadsheets (attached as Appendix B) are in disagreement, the data from the Maximo modules relevant to the discrepancy shall be provided in the Quarterly Reports required under Section VI (Reporting Requirements) along with the spreadsheets and an explanation as to the discrepancy; and
- viii. VIWAPA shall continue the use of its SunGard software package or a comparable program for requisitions and purchase orders. The screen shots from SunGard on requisitions and purchase orders shall be available to EPA upon request in electronic format.
- h. By signing this Consent Decree, VIWAPA certifies under penalty of law to EPA that, except for those parts identified in Appendix C, all the replacement parts identified in the Spare Parts Inventory Program are on-site on either St. Croix or St. Thomas and are available for use on St. Thomas. The parts identified in Appendix C shall be on-site on either St. Croix or St. Thomas by the date specified in Appendix C.
- i. VIWAPA shall procure, at a minimum, replacement parts to ensure that each part is maintained at or above the minimum amount identified in the Spare Parts Inventory Program no later than sixty Days of the date when the part fell below the minimum.
- j. VIWAPA shall maintain compliance with its EPA approved St. Thomas
   Spare Parts Inventory Program for the duration of this Consent Decree.
- k. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall report on its compliance with the St. Thomas Spare Parts Inventory Program, identify the date any part fell below the minimum amount identified in the Spare Parts Inventory Program, and identify each instance and duration of time in which

VIWAPA failed to procure a spare part within the sixty Days of the date when the part fell below the minimum amount, as required by the St. Thomas Spare Parts Inventory Program and this Paragraph.

# 15. St. Thomas Water Injection Systems

- a. VIWAPA shall operate its water injection systems as required by the PSD Permits and the St. Thomas Title V Operating Permit. By no later than 15 days after the Date of Lodging, VIWAPA shall submit a request to the permitting authority to include the water to fuel ratios established during EPA approved performance testing and approved by EPA for Units 15, 18 and 23 as enforceable standards in the St. Thomas Title V Operating Permit.
- b. Before the Startup of Unit 22, Defendant shall submit, for EPA approval, a Performance Test protocol for Unit 22. Within 90 Days of the Startup of Unit 22, Defendant shall conduct Performance Testing in accordance with the EPA approved protocol.
- c. By signing this Consent Decree, VIWAPA certifies under penalty of perjury to EPA that it uses, and intends to continue to use, industrial grade water on its water injection systems.
- d. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall:
- i. report on any periods when industrial grade water was not available for the water injection system at any of the Units in operation;
- ii. identify which unit, if any, was not utilizing industrial grade water during the reporting period;
- iii. identify which unit, if any, that is not currently receiving industrial grade water;

- iv. explain why industrial grade water was or is not available; and
- v. identify and explain the actions VIWAPA has or will take to make the industrial grade water available.
- e. VIWAPA submitted to EPA for review and approval a Water Injection System Training Program for employees on the operation and maintenance of the water injection systems. EPA approved the Water Injection System Training Program on February 27, 2014, and the training program includes the following:
- i. the frequency of training, which shall be no less than annual, for all employees who will be operating and/or maintaining the water injection systems, including plans to train any new employees hired during the calendar year;
- ii. incorporation of the requirements of the Water Injection System

  Preventative Operation and Maintenance Plan developed pursuant to Paragraph 15.j below; and

  iii. provision that requires that training be provided within thirty (30)

  days of any employee being assigned to operate and maintain the water injection systems.
- f. No later than the Date of Lodging, VIWAPA shall provide periodic training (at least annually) pursuant to the Water Injection System Training Program for all employees who will be operating and/or maintaining the water injection systems. VIWAPA shall thereafter provide training for all employees operating and/or maintaining the water injection systems pursuant to the schedule outlined in the Water Injection System Training Program.
- g. By signing this Consent Decree, VIWAPA certifies under penalty of law that it has available, on-site at the St. Thomas Facility at all times that the facility is operating, at least one technical person or engineer who has completed the Water Injection System Training

Program and who is trained and experienced in operating and maintaining the water injection systems. Such person shall be able to respond by either i) correcting deficiencies, ii) shutting down the Unit, or iii) obtaining on-site, within two hours, a trained technical person, maintenance person, or engineer to correct deficiencies.

- h. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall report any instances when a trained technical person or engineer is not available to correct any deficiencies or remove a unit from service, or obtain on-site, within two hours, a trained technical person, maintenance person, or engineer to initiate efforts to correct deficiencies, as required by sub-paragraph 15.g above, and provide an explanation as to why a trained technical person or engineer was not available to correct deficiencies.
- i. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall:
- i. report on the training that it has provided pursuant to the Water
   Injection System Training Program;
- ii. identify the employees who have been trained pursuant to theWater Injection System Training Program in that reporting period;
- iii. identify any employees, required to be trained that reporting period, who have not yet received their required training and indicate the dates that training for these employees is scheduled to occur; and
- iv. indicate what training materials were utilized in the training conducted pursuant to the Water Injection System Training Program and make these materials available upon request.
  - j. On February 26, 2015, VIWAPA submitted the NO<sub>X</sub> Control Water

Injection System Preventative Operation and Maintenance Plan ("O&M Plan") for the St. Thomas Facility. EPA approved the O&M Plan on August 19, 2015. The purpose of the St. Thomas O&M Plan is to ensure that proper procedure and maintenance is followed in order to maintain the water injection systems and comply with the Act, the PSD Permits and the St. Thomas Title V Operating Permit, and all applicable regulations. The St. Thomas O&M Plan provides standard operating procedures and addresses the items listed in Appendix D.

- k. VIWAPA shall maintain compliance with the St. Thomas O&M Plan.

  Any changes VIWAPA proposes to the St. Thomas O&M Plan shall be submitted to EPA, for EPA review and approval, indicating the proposed change and the rationale for the proposed change.
- 1. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall submit to EPA a Water Injection System Data Sheet (similar in form to the data sheet attached to this Decree as Appendix E), which shall include, at a minimum, the following information for the previous quarter:
  - i. hours of water injection system downtime;
- ii. water injection system downtime as a percent of total source operating time (for the quarter);
  - iii. explanations for any water injection system downtime; and
- iv. proposed corrective actions for any water injection system downtime.
- m. By January 1, 2016, and continuing every 24 months thereafter until the Consent Decree is terminated, a third party audit of the water injection systems shall be conducted for Units 15, 18, 22 and 23, when operable, and where necessary when not operable

("Water Injection System Third Party Audit"). For any unit that is not operable at the time of a scheduled audit, Defendant shall conduct an audit of that Unit's operation within three months of Startup. The Water Injection System Third Party Audit shall mean a system wide audit to be conducted by a third party auditor, who could be, for this matter, a representative of the manufacturer of the turbine(s), if approved by EPA, that includes, but is not limited to, the following: determination of the integrity of the water injection system; evaluate, at a minimum, each component that is identified in Appendix F; identification of the causes of any system failure; and incidences, if any, in which VIWAPA operators switch the water injection pumps due to mechanical problem with a pump or when there has been a failure to meet the water injection limits.

- n. At least 60 days before an audit is scheduled to commence, VIWAPA shall submit, to EPA for review and approval, the name and credentials of a proposed third party auditor who has experience in operation and maintenance of water injection systems for turbines at power plants. To satisfy the Water Injection System Third Party Audit requirements of this Consent Decree, VIWAPA shall ensure that a third party auditor is approved by EPA at least forty-five days prior to commencement of the audit
- o. VIWAPA shall ensure compliance with, and include in its contract with the water injection system third party auditor, a condition requiring the auditor to concurrently submit to EPA any Water Injection System Third Party Audit Reports, including drafts, that it submits to VIWAPA. In addition, VIWAPA shall ensure that all correspondence between VIWAPA and the Third Party Auditor regarding any disagreements and a summary of any oral resolution of any disagreement is submitted to EPA.
  - p. By no later than 30 days after completion of a Water Injection System

Third Party Audit, a Water Injection System Third Party Audit Report shall be submitted concurrently to VIWAPA and EPA.

- q. Each Water Injection System Third Party Audit Report shall include, at a minimum, the following information:
- i. auditor's recommendations for correcting system failure issues, including deadlines by which each corrective action will be implemented;
- any water injection system integrity issues identified by the third
   party audit and the auditor's recommendations to address these water injection system integrity
   issues;
- iii. any issues with the redundant water injection pumps identified as a result of the audit; and
- iv. a certification by the project manager for the audit, in accordance with Paragraph 32.
- r. By no later than 60 days after completion of the Water Injection System Third Party Audit, VIWAPA shall submit, to EPA for review and approval, VIWAPA's responses to the Water Injection System Third Party Audit Report recommendations.

  VIWAPA's responses shall include dates that recommendations were implemented; plans to implement the recommendations and/or alternatives to the recommendations and/or any alternative dates for implementation.
- s. Where VIWAPA provides alternatives to the auditor's recommendations, it must provide, to EPA, for review and approval, an explanation and rationale for why VIWAPA believes the recommendation should be modified and/or is not necessary and/or not feasible for compliance with CAA requirements, applicable permits and/or this Consent Decree.

- t. VIWAPA shall either implement the third party auditor recommendation(s) and/or VIWAPA's alternative measure(s) by the date(s) recommended by the auditor or provided by VIWAPA, or if EPA does not approve of the recommendation(s) and/or alternative measure(s) and/or date(s) proposed, VIWAPA shall implement in accordance with EPA's comments, unless successfully challenged in Dispute Resolution.
- u. No later than January 1, 2017, and continuing every 24 months thereafter until the Consent Decree is terminated, VIWAPA shall conduct a self-audit of the water injection systems for each of Units 15, 18, 22 and 23 that is operable (Water Injection System Self-Audit). For any unit that is not operable at the time of a scheduled audit, Defendant shall conduct an audit of that Unit's operation within three months of Startup. The Water Injection System Self-Audit shall include, at a minimum, the following information:
  - i. evaluation of the integrity of the water injection system;
- ii. evaluation of the integrity of, at a minimum, each component that is identified in Appendix F;
  - iii. identification of the causes of any system failure; and
- iv. identification of incidences, if any, in which VIWAPA operators switch the water injection pumps and the reasons for, and circumstances behind, such incidences.
- v. By no later than 45 days after completion of the Water Injection System Self-Audit, VIWAPA shall submit, a Water Injection System Self-Audit Report to EPA. Each Water Injection System Self-Audit Report shall include, at a minimum, the following information:
- i. any water injection system integrity issues identified during the audit;

- ii. any issues with the redundant water injection pumps identified as a result of the audit;
- iii. recommendations to implement remedial actions to address any integrity issues with the water injection system or issues with the redundant water injection pumps. Such recommendations shall include, for EPA review and approval, proposed dates to implement the recommendations; and
  - iv. a certification in accordance with Paragraph 32.
- w. VIWAPA shall either implement the self-audit recommendation(s) by the date(s) recommended, or if EPA does not approve of the recommendation(s) and/or date proposed, VIWAPA shall implement in accordance with EPA's comments, unless successfully challenged in Dispute Resolution.

# 16. St. Thomas NO<sub>X</sub> and CO CEMS and COMS

- a. VIWAPA shall maintain and operate  $NO_X$  and CO CEMS and COMS at Units 15, 18, 22, 23 and HRSG 21 where required by permit.
- b. No later than the Date of Lodging for Units 15, 18, 23 and HRSG 21, and within seven days of Startup of Unit 22, VIWAPA shall use the CEMS daily calibration data sheet ("CEMS Daily Calibration Data Sheet") for each CEMS. The CEMS Daily Calibration Data Sheet shall include daily calibrations for the zero and high range for each CEMS.
- c. By January 1, 2016, and continuing every 24 months thereafter until the Consent Decree is terminated, a system wide third-party audit of the  $NO_X$  and CO CEMS and COMS ("CEMS/COMS Third Party Audit") shall be conducted for each of the Units that is operable. For any unit that is not operable at the time of a scheduled audit, the CEMS/COMS Third Party Audit shall be conducted within three months of Startup of the Unit. The

CEMS/COMS Third Party Audit shall be conducted by a third party auditor approved by EPA, who has an expertise in operating, maintaining and repairing CEMS/COMS, and shall include, at a minimum, the following information:

- i. identification and determination of the causes of any
   CEMS/COMS system failure, including Data Acquisition and Handling System ("DAHS")
   failures;
- ii. evaluations of the integrity of, at a minimum, each component that is identified in Appendix G;
- iii. identification of any untimely performance of any QA procedure (i.e., PS1 for COMS, CGA and RATAs for CEMS, daily calibration drifts);
- iv. evaluations of whether all personnel involved in the operation of CEMS and COMS operations have been timely trained on CEM/COMS procedures; and
- v. evaluations of all technician/operator journals on daily operational status and maintenance to determine if it is maintained and up to date.
- d. At least 60 days before an audit is scheduled to commence, VIWAPA shall submit, to EPA for review and approval, the name and credentials of a proposed third party auditor who has expertise in operation, maintenance and repair of CEMS/COMS. To satisfy the CEMS/COMS Third Party Audit requirements, VIWAPA shall ensure that a third party auditor is approved by EPA at least forty-five days prior to commencement of the audit.
- e. VIWAPA shall ensure compliance with, and include in its contract with the CEMS/COMS third party auditor, a condition requiring the auditor to concurrently submit, to EPA, any CEMS/COMS Third Party Audit Report, including drafts, that it submits to VIWAPA. In addition, VIWAPA shall ensure that all correspondence between VIWAPA and the Third

Party Auditor regarding any disagreements and a summary of any oral resolution of any disagreement is submitted to EPA.

- f. By no later than 30 days after completion of a CEMS/COMS Third Party Audit, a CEMS/COMS Third Party Audit Report shall be submitted concurrently to VIWAPA and EPA.
- g. Each CEMS/COMS Third Party Audit Report shall include, at a minimum, the following information:
- i. recommendations for correcting system failures, including deadlines by which each corrective action will be implemented;
- ii. identification of any integrity issues with components of the
   CEMS/COMS identified by the third party audit and recommendations to address the integrity issues; and
- iii. a certification by the project manager for the audit, in accordance with Paragraph 32.
- h. By no later than 60 days after completion of a CEMS/COMS Third Party Audit, VIWAPA shall submit to EPA for review and approval, VIWAPA's responses to the CEMS/COMS Third Party Audit Report recommendations. VIWAPA's responses shall include dates that recommendations were implemented; plans to implement the recommendations and/or alternatives to the recommendations and/or any alternative dates for implementation.
- i. Where VIWAPA provides alternatives to the auditor's recommendations, it must provide, to EPA, for review and approval, an explanation and rationale for why VIWAPA believes the auditor's recommendation should be modified and/or is not necessary and/or not feasible for compliance with Clean Air Act requirements, applicable permits and/or this Consent

Decree.

- j. VIWAPA shall either implement the third party auditor recommendations and/or VIWAPA's alternative measure(s) by the date(s) recommended by the auditor or provided by VIWAPA, or if EPA does not approve of the recommendation(s) and/or alternative measure(s) and/or date(s) proposed, VIWAPA shall implement in accordance with EPA's comments, unless successfully challenged in Dispute Resolution.
- k. By January 1, 2017, and continuing every 24 months thereafter until the Consent Decree is terminated, VIWAPA shall conduct a self-audit of the  $NO_X$  and CO CEMS and COMS ("CEMS/COMS Self-Audit") for each of the Units that is operable. For any Unit that is not operable at the time of a scheduled audit, Defendant shall conduct an audit of that Unit's operation within three months of Startup. The CEMS/COMS Self-Audit shall include, at a minimum, the following information:
- i. identification and determination of the causes of any
   CEMS/COMS system failure, including DAHS failures;
- ii. evaluation of the integrity of, at a minimum, each component that is identified in Appendix G;
- iii. identification of any untimely performance of QA procedures (i.e., PS1 for COMS, CGA and RATAs for CEMS, daily calibration drifts);
- iv. evaluation of whether all personnel involved in the operation of CEMS/COMS have been timely trained on CEMS/COMS procedures; and
- v. evaluation of all technician/operator journals on daily operational status and maintenance to determine if it is maintained and up to date.
  - 1. By no later than 45 days after completion of a CEMS/COMS Self-Audit,

VIWAPA shall submit a CEMS/COMS Self-Audit Report to EPA. Each CEMS/COMS Self-Audit Report shall include, at a minimum, the following information:

- i. identification of any integrity issues with components of the
   CEMS/COMS system components;
- ii. identification of systems failures and evaluation(s) of the causes for such failures;
- iii. recommendations, for EPA review and approval, to address the CEMS/COMS system integrity issues identified and recommendations to implement remedial actions to address the issues identified. Such recommendations shall include, for EPA review and approval, proposed dates to implement remedial actions to address the issues identified; and
  - iv. a certification in accordance with Paragraph 32.
- m. VIWAPA shall either implement the self-audit recommendation(s) by the date(s) recommended, or if EPA does not approve the recommendation(s) and/or dates proposed, VIWAPA shall implement in accordance with EPA's comments, unless successfully challenged in Dispute Resolution.
- n. VIWAPA shall submit to EPA for review and approval a preventative maintenance and operations plan for its NO<sub>X</sub> and CO CEMS, and COMS entitled Quality Assurance Plan for CEMS and COMS (hereinafter referred to as "QAP") no later than June 30, 2015. Compliance with the QAP is designed to ensure the proper and continual operation and maintenance of the NO<sub>X</sub> and CO CEMS and COMS.
- o. VIWAPA shall maintain compliance with the QAP. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall report on its compliance with the QAP, and identify any instances where VIWAPA failed to comply with the

QAP.

- p. At all times the St. Thomas Facility is in operation, VIWAPA shall operate an audible alarm in the St. Thomas Facility's control room for the CEMS that indicates when any CEMS records emissions at levels that are approaching an emission limit. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall identify each instance when the audible alarm was not operating as required by this sub-paragraph.
- q. By the Date of Lodging, at all times the St. Thomas Facility is in operation, VIWAPA shall operate, in the St. Thomas Facility's control room, an audible alarm for the water injection systems that is automatically activated to operate whenever any NO<sub>X</sub> CEMS is not operating and manually activated to operate whenever any NO<sub>X</sub> CEMS has not passed required CGAs and/or RATAs. The water injection system alarm will cause an audible alarm to sound whenever the water to fuel ratio is approaching the established water to fuel ratio for the unit for which the CEMS is not operating and/or for which the CEMS has not passed required tests.
- r. On May 24, 2013, VIWAPA hired a qualified outside entity to provide onsite training for VIWAPA's employees on the proper operation and maintenance of the CEMS
  and COMS for a period of no less than three years. If after this three year period VIWAPA is
  not able to demonstrate to EPA that its employees can maintain ongoing substantial compliance
  with its CEMS and COMS requirements, VIWAPA shall continue its retention of a qualified
  outside entity to provide training to its employees as described above until EPA determines that
  VIWAPA is operating its CEMS and COMS in substantial compliance with all applicable
  requirements.
  - s. By the Date of Lodging, VIWAPA shall have at least one trained and

experienced technician and/or engineer who is dedicated to properly operating and maintaining the CEMS and COMS, that is available on-site at the St. Thomas Facility, 24 hours per day, 7 days per week, 365 days per year to operate and maintain the CEMS and COMS at the St. Thomas Facility. A person shall be on-site at all times who shall be able to within two hours respond either i) by correcting deficiencies on the CEMS or COMS, or ii) by obtaining on-site, a trained technical person, maintenance person, or engineer to correct deficiencies with the CEMS or COMS.

- t. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall report any instances when a technician or engineer trained in proper operation and maintenance of the CEMS and COMS was not available on-site at the St. Thomas Facility, as required by sub-Paragraph 16.s. VIWAPA shall also provide an explanation in the Quarterly Report as to why a trained technician or engineer was not available.
- u. In each Quarterly Report required under Section VI (Reporting Requirements), VIWAPA shall:
- i. report on the training that it has provided to employees on the proper operation and maintenance of the CEMS and COMS pursuant to sub-paragraph 16.r;
- ii. identify the employees who have been trained in the proper operation and maintenance of the CEMS and COMS that reporting period;
- iii. identify any employees, required to be trained that reporting period, who have not yet received their required training and indicate the dates that training for these employees is scheduled to occur; and
- iv. indicate what training materials were utilized in the training on the proper operation and maintenance of the CEMS and COMS and make these materials available

upon request.

v. If VIWAPA's PSD Permits and the St. Thomas Title V Operating Permit are modified or amended to no longer require a COMS to be operated on one or more of the Units, the requirements in this Decree relating to the operation of COMS on such Units shall no longer be applicable.

#### 17. Video Camera System

- a. Within 60 Days of the Date of Lodging, VIWAPA shall install a video camera system that includes multiple video cameras that record and send video feeds to the control room of the emission outlets from the stacks associated with Units 14, 15, 18 and 23 and each of the HRSGs, to ensure that any visible emissions are observed and further evaluated for compliance with applicable SIP Opacity Rule.
  - b. The video camera system shall:
    - i. record the emission outlet of each of the stacks;
- ii. record in digital format at a rate of no less than 10 frames per second; and
  - iii. date and time stamp the recordings.
- c. On any day on which the video system documents visible emissions from a stack, VIWAPA shall conduct visible emission readings for that stack, in accordance with Method 9, at least once that day for thirty (30) consecutive minutes. Readings shall be made at the emission outlet of the stack on any day that a video camera documents visible emissions from that stack for greater than three (3) minutes and when a video camera is not operable and there are any visible emissions from that stack for greater than three (3) minutes:
  - i. In the event that any Method 9 reading indicates opacity levels

averaging 20% or greater (excluding periods aggregating 3 minutes or less with opacities at or below 40% opacity), VIWAPA shall conduct Method 9 readings at least every three (3) hours for thirty (30) consecutive minutes, until Method 9 readings indicate opacity levels that do not exceed the applicable permit and SIP opacity limits, or for the remainder of that day it shall be presumed that opacity levels remained in excess of permit limits until Method 9 readings taken over thirty (30) consecutive minutes have averaged no more than the applicable permit and SIP opacity limits.

- ii. In the event that a Method 9 reading indicates opacity levels in compliance with opacity limits, no further Method 9 readings need to be taken unless opacity levels increase during the day, in which case VIWAPA shall conduct additional Method 9 readings of at least thirty (30) consecutive minutes.
- d. VIWAPA shall maintain recordings from the video camera system for at least 6 rolling months and make recordings available to EPA upon request.

# 18. St. Thomas Facility Quality Assurance/Quality Control Evaluations

a. Each calendar quarter, VIWAPA shall conduct either a RATA or a CGA, in accordance with 40 C.F.R. Part 60, Appendix F, 5.1.1. and 5.1.2., on the CEMs for Unit 15, 18, 22 23 and the HRSG, provided that a RATA is conducted once per calendar year. For Unit 22, VIWAPA shall begin conducting either a RATA or CGA each calendar quarter no later than 180 Days of Substantial Completion. VIWAPA shall conduct these quarterly audits no closer than 2 months apart and shall conduct CGAs on quarters when a RATA is not conducted. Except as provided for Unit 22, above, if an annual RATA has not been conducted and a unit is not operational during the 4<sup>th</sup> quarter then the RATA shall be performed in the quarter in which the unit recommences operation. Except as provided for Unit 22, above, required CGAs must be

conducted even when the unit is not operational.

b. Beginning in calendar year 2015, VIWAPA shall include the results of RATAs and CGAs in the Quarterly Reports required under Section VI (Reporting Requirements), and indicate completion of these tests in the annual Title V certification for the St. Thomas Facility.

# 19. St. Thomas Stack/Performance Testing

- a. Within 180 Days of the date that Units 15, 18 and 23 are all converted to burn LPG/LNG and LPG/LNG is available, VIWAPA shall conduct stack testing in accordance with all applicable permits while burning LPG/LNG, in accordance with EPA approved protocols. All subsequent stack testing shall be completed in accordance with the St. Thomas Title V Operating Permit.
- b. No later than 120 Days before stack testing is scheduled to begin,
   VIWAPA shall submit a protocol for stack testing to EPA for review and approval.
- c. No later than 60 Days after completion of stack testing, VIWAPA shall submit to EPA copies of the stack test report on three compact discs.
- d. No later than 90 Days after completion of stack testing, VIWAPA shall submit to EPA for review and approval a corrective action plan ("Corrective Action Plan") to address any emission exceedances documented during stack testing. The Corrective Action Plan must:
- i. Propose corrective action measures (including repairs) to be made to address any emission exceedances;
- ii. Provide an explanation for the specified corrective action measures;

- iii. Propose a schedule for implementation of measures and repairs; and
- iv. Propose a date for follow-up stack testing to demonstrate compliance with any emission limits that were exceeded, to occur no later than sixty days from completion of corrective action measures and/or repairs.
- e. No later than 45 Days after completion of any follow-up stack testing, VIWAPA shall submit to EPA copies of the stack test reports on three compact discs.
- f. VIWAPA shall continue to submit to EPA for review and approval Corrective Action Plans to address any emission exceedances indicated in any follow-up stack testing and submit compact discs, in accordance with paragraphs 19.d and 19.e, until VIWAPA is able to demonstrate compliance.
- g. If VIWAPA cannot demonstrate compliance with emission limits after the second stack test, VIWAPA shall not operate the unit using the type of fuel for the unit for which they have not demonstrated compliance, except for Startup, Shutdown, implementation of Corrective Action Plan and/or re-testing.
- h. Within 60 Days of stack testing that demonstrates compliance with NO<sub>X</sub> emission limit requirements, VIWAPA shall submit to DPNR a request to modify the St. Thomas Facility Title V Operating Permit to include the water-to-fuel ratios, established during stack testing, for Units 15, 18 and 23. Copies of submissions shall be submitted to the EPA in accordance with Section XIII (Notices).

# 20. St. Thomas Unit 25

a. VIWAPA shall submit semiannual excess emission and monitor downtime reports to EPA for Unit 25 as required by NSPS Subpart KKKK and NSPS General Provisions.

# 21. St. Thomas Facility Unit 14

- a. VIWAPA shall enter into a contract by September 30, 2015 for the fabrication, purchase, and installation of a fuel atomizer on Unit 14.
- b. VIWAPA shall install a fuel atomizer on Unit 14 no later than 45 Days after the Substantial Completion of Unit 23, which is, at the Date of Lodging, expected to occur on/or about February 15, 2016. At the latest, the fuel atomizer shall be installed by June 1, 2016.
- c. VIWAPA shall tune-up and conduct evaluations of the fuel atomizer operations during the first forty-five (45) Days after installation.
- d. No later than 100 Days after the installation of the fuel atomizer,

  VIWAPA shall submit a report ("Fuel Atomizer Progress Report") to EPA. The Fuel Atomizer

  Progress Report shall:
- i. provide documentation confirming the date the fuel atomizer was installed;
- ii. report any visible emissions and any noncompliance with the Virgin Islands State Implementation Plan, VI-APCAR&R, Title 12, Chapter 9, Section 204-22(a) and (b) ("VI SIP Opacity Rule") that occurred during the second forty-five Days (45) after the installation of the fuel atomizer;
- iii. provide a schedule for permanently ceasing operations of Unit 14 on a date no later than two years after installation of the fuel atomizer, in the event that Unit 14 is unable to achieve compliance by that date; and
- iv. Provide, for EPA review and approval, recommendations and a schedule for any corrective action measures and further repairs, if needed, to achieve compliance with the VI SIP Opacity Rule.

- e. Upon receipt of EPA's approval of the schedule for corrective action measures and further repairs, if any, VIWAPA shall implement any necessary corrective action measures and further repairs in accordance with the approved schedule.
- f. In the event that Unit 14 has not achieved compliance with the SIP Opacity Rule within two years of installation of the fuel atomizer, VIWAPA shall:
- i. permanently cease operation of Unit 14, no later than the date identified in the schedule submitted to EPA; and
- ii. within 30 Days of permanently ceasing operation of Unit 14, submit a request to DPNR to remove Unit 14 from the Title V Operating Permit.

# 22. St. John Facility

- a. By the Date of Lodging, the St. John Unit diesel engine ("St. John Unit") shall comply with the requirements of 40 C.F.R. Part 63, Subpart ZZZZ ("RICE NESHAP").
- b. Within 90 days of the Date of Lodging, VIWAPA shall use diesel fuel at the St. John Unit that meets the requirements of 40 C.F.R. § 80.510(b) for nonroad diesel fuel.
- c. By no later than 150 Days of the Date of Lodging, VIWAPA shall submit to the permitting authority: 1) a request to withdraw the St. John Facility Title V Operating Permit and 2) a request to issue the St. John Facility a minor source state operating permit that provides for:
- i. operation of the St. John Unit as an emergency unit, subject to SIP limitations;
- ii. incorporation of 40 C.F.R. Part 63 Subpart ZZZZ as an applicable requirement, and
  - iii. a condition that requires the St. John Unit to use diesel fuel that

meets the requirements of 40 C.F.R. § 80.510(b) for nonroad diesel fuel.

- 23. Approval of Deliverables. VIWAPA shall immediately begin implementation of any plan, report, or other item submitted to EPA for review and approval. After EPA review of any plan, report, or other item that is required to be submitted pursuant to this Consent Decree, EPA shall in writing: a) approve the submission; b) approve the submission upon specified conditions; c) approve part of the submission and disapprove the remainder; or d) disapprove the submission.
- 24. If the submission is approved pursuant to Paragraph 24.a, Defendant shall take all actions required by the plan, report, or other document, in accordance with the schedules and requirements of the plan, report, or other document, as approved. If the submission is conditionally approved or approved only in part, pursuant to Paragraph 24.b or 24.c, Defendant shall, upon written direction from EPA, take all actions required by the approved plan, report, or other item that EPA determines are technically severable from any disapproved portions, subject to Defendant's right to dispute only the specified conditions or the disapproved portions, under Section IX (Dispute Resolution).
- 25. If the submission is disapproved in whole or in part pursuant to Paragraph 24.c or 24.d, Defendant shall, if required, within 45 Days or such other time as the Parties agree to in writing, correct all deficiencies and resubmit the plan, report, or other item, or disapproved portion thereof, for approval, in accordance with the preceding Paragraphs. If the resubmission is approved in whole or in part, Defendant shall proceed in accordance with the preceding Paragraph.
- 26. Any stipulated penalties applicable to the original submission, as provided in Section VII (Stipulated Penalties), shall accrue during the 45 Day period or other specified

period, but shall not be payable unless the resubmission is untimely or is disapproved in whole or in part; provided that, if the original submission was so deficient as to constitute a material breach of Defendant's obligations under this Decree, the stipulated penalties applicable to the original submission shall be due and payable notwithstanding any subsequent resubmission.

- 27. If a resubmitted plan, report, or other item, or portion thereof, is disapproved in whole or in part, EPA may again require Defendant to correct any deficiencies, in accordance with the preceding Paragraphs, subject to Defendant's right to invoke Dispute Resolution and the right of EPA to seek stipulated penalties as provided in the preceding Paragraphs.
- 28. Permits. Where any compliance obligation under this Section requires Defendant to obtain a federal, state, or local permit or approval, Defendant shall submit timely and complete applications and take all other actions necessary to obtain all such permits or approvals.

  Defendant may seek relief under the provisions of Section VIII (Force Majeure) for any delay in the performance of any such obligation resulting from a failure to obtain, or a delay in obtaining, any permit or approval required to fulfill such obligation, if Defendant has submitted timely and complete applications and has taken all other actions necessary to obtain all such permits or approvals.

# VI. REPORTING REQUIREMENTS

- 29. Defendant shall submit the following reports:
- a. Within 30 Days after the end of each quarter (i.e., by April 30, July 30, October 30, and January 30) after lodging of this Consent Decree, until termination of this Decree pursuant to Section XVII (Termination), Defendant shall submit to EPA, in accordance with Paragraph 78, a Quarterly Report for the preceding quarter that shall include all obligations required under this Decree including the following:

- i. the amount of LPG/LNG used on an hourly basis;
- ii. the amount of fuel oil used on an hourly basis;
- iii. the number of operating hours of each converted Unit on a hourly basis;
- iv. the calculations VIWAPA used to determine the 12-Month Rolling Average Percent kWh generated from individual Converted Unit burning LPG/LNG;
- v. the calculations VIWAPA used to determine the combined 12-Month Rolling Average Percent kWh from Renewables and kWh generated by Converted Units burning LPG/LNG;
- vi. records of periods when LPG/LNG is or was not available and explanations;
- vii. status of compliance with the St. Thomas Spare Parts Inventory

  Program required by Paragraph 14;
- viii. records of periods when industrial grade water is or was not available for the water injection system at any unit and explanations as required by Paragraph 15.d;
- ix. explanations of any instance when an on-site trained technical person or engineer is not available at the St. Thomas Facility as required by in Paragraph 15.g;
- x. records of training provided pursuant to the Water Injection

  System Training Program, including the employees trained in that reporting period, identification

  of employees who have not been trained in the Program and scheduled training dates for those

  employees, and description of training materials utilized as required by Paragraph 15.i;
  - xi. Water Injection System Data sheet(s) as required by Paragraph

15.i;

xii. status of compliance with QAP and instances of failing to comply with QAP as required by Paragraph 16.0;

xiii. instances when the audible alarm did not sound but the CEMS indicated emissions exceedances as required by Paragraph 16.p;

xiv. explanations of any instance when an on-site technical person or engineer trained in the proper operation and maintenance of the  $NO_X$  and CO CEMS and COMS is not available at the St. Thomas Facility to respond as required by Paragraph 16.s;

xv. records of training required by Paragraph 16.u, including the identification of employees trained in that reporting period, identification of employees required to be trained who have not been trained, and scheduled training dates for those employees, as described in Paragraph 16.r;

xvi. identify any hours when a video camera and/or a video feed was not in operation as required by Paragraph 17.b;

xvii. identification of any violations of the VI SIP Opacity Rule, observed during Method 9 readings, as required by Paragraph 17.c;

xviii. indication of completion and results of RATAs and CGAs as required by Paragraph 18.b;

xix. any start and end dates for Unit outages (for purposes of this

Paragraph an outage includes times when the Unit is not available to generate power and is taken

offline to complete a repair) that lasted fourteen days or longer and a brief description of the

work completed and/or anticipated to be completed on the Unit; and

xx. any anticipated start and end dates for Unit outages that are

expected to last fourteen days or longer on the Unit and a brief description of the work that is planned for the Unit.

- b. The Quarterly Reports shall also include a description of any non-compliance with the requirements of this Consent Decree to the extent not previously addressed by Paragraph 29.a above, and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. If Defendant violates, or has reason to believe that it may violate, any requirement of this Consent Decree, Defendant shall notify the United States of such violation and its likely duration, in writing, within ten working Days of the Day Defendant first becomes aware of the violation, with an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation. If the cause of a violation cannot be fully explained at the time the report is due, Defendant shall so state in the report. Defendant shall investigate the cause of the violation and shall then submit an amendment to the report, including a full explanation of the cause of the violation, within 30 Days of the Day Defendant becomes aware of the cause of the violation. Nothing in this Paragraph or the following Paragraph relieves Defendant of its obligation to provide the notice required by Section VIII (Force Majeure).
- 30. Whenever any violation of this Consent Decree or of any applicable permits or any other event affecting Defendant's performance under this Decree, or the performance of its Facility, may pose an immediate threat to the public health or welfare or the environment, Defendant shall notify EPA orally or by electronic or facsimile transmission as soon as possible, but no later than 24 hours after Defendant first knew of the violation or event. This procedure is in addition to the requirements set forth in the preceding Paragraph.
  - 31. All reports shall be submitted to the persons designated in Section XIII (Notices).

32. Each report submitted by Defendant under this Section shall be signed by an official of the submitting party and include the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, 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.

This certification requirement does not apply to emergency or similar notifications where compliance would be impractical.

- 33. The reporting requirements of this Consent Decree do not relieve Defendant of any reporting obligations required by the Act or implementing regulations, or by any other federal, state, or local law, regulation, permit, or other requirement.
- 34. Any information provided pursuant to this Consent Decree may be used by the United States in any proceeding to enforce the provisions of this Consent Decree and as otherwise permitted by law.

# VII. STIPULATED PENALTIES

35. Defendant shall be liable for stipulated penalties to the United States for violations of this Consent Decree as specified below, unless excused under Section VIII (Force Majeure). A violation includes failing to perform any obligation required by the terms of this Decree, including any work plan or schedule approved under this Decree, according to all applicable requirements of this Decree and within the specified time schedules established by or approved under this Decree.

# 36. <u>Late Payment of Civil Penalty</u>

If Defendant fails to pay the civil penalty required to be paid under Section IV (Civil Penalty) when due, Defendant shall pay a stipulated penalty of \$750 per Day for each Day that the payment is late.

# 37. Excess Emission Violations

<b>Hours of Excess Emissions per Unit per</b>	Amount per hour
Calendar Quarter	
1-250 hours	\$50
251-750 hours	\$100
Greater than 750 hours	\$250

If the NO<sub>X</sub> CEMS are unavailable and/or not providing data that has been fully quality assured quality controlled (including, but not limited to, daily calibrations, CGAs, RATAs, etc.), the hours of excess emission shall be determined by the established water to fuel injection ratios.

Stipulated penalties for excess emissions will not accrue where emissions occurred during Capacity Performance Testing event after major maintenance or overhaul of the gas turbine unit for a period of up to but no greater than eight hours provided that: a) VIWAPA provides notice to EPA, at least 7-days in advance, of any Capacity Performance Test being conducted; and VIWAPA reports all excess emissions that occur during Capacity Performance Testing as excess emissions.

The hours of excess emissions for the PSD affected Units will be calculated in accordance with the specifications provided in the PSD Permits. Hours of excess emissions for all other Units will be determined in accordance with the specifications of the NSPS.

# 38. <u>12-month rolling average for Combined Converted Units</u>

Failure to comply with the minimum of 85%	\$15,000 per 12-month rolling period
12-month rolling average percent kWh	
generated by all Converted Units burning	
LPG/LNG and kWh by Renewables for each	
rolling 12- month period, as required by	
Paragraph 13.a	
J 1	

# 39. <u>12-month rolling average for each Converted Unit</u>

Failure to comply with the minimum of 65%	\$10,000 per 12-month rolling period
12-month rolling average percent kWh	
generated by burning LPG/LNG for each	
rolling 12-month period, as required by	
Paragraph 13.b	

If in a given 12-month rolling period, stipulated penalties are paid pursuant to Paragraph 38, then stipulated penalties under Paragraph 39 do not apply.

40. VI SIP Opacity Violations at Unit 14 detected by Method 9 Visible Emissions Readings beginning forty-six (46) Days after installation of the fuel atomizer required by Paragraph 21.a: for each violation of the VI SIP Opacity requirement, as recorded by Method 9, \$400 per 6 minute average reading in excess of the limit up to a maximum of \$6,000 per day.

# 41. NO<sub>X</sub> and CO CEMS Violations

Percentage of Monitor Available per Calendar Quarter per Parameter for each Monitor on each Unit	Amount per Monitor
75%-89%	\$2,500
50%-74%	\$7,500
0%-49%	\$15,000

# 42. Video Camera System

Failure to continuously operate video camera(s) and/or video feed(s) when the unit associated with the stack emission outlet is operating, as required by Paragraph 17:

Percentage of Video Camera Availability	Amount per Camera
per Calendar Quarter for each Video	
Camera on each unit while unit is operating	
90%-95%	\$2,000
50%-89%	\$4,000
0%-49%	\$8,000

# 43. Compliance Milestones

a. The following stipulated penalties shall accrue per violation per Day for

each violation of the requirements identified in subparagraph b:

Penalty Per Violation Per Day	Period of Noncompliance
\$ 200	1st through 14th Day
\$ 500	15th through 30th Day
\$ 750	31st Day and beyond

- b. Violation of the following compliance milestones will result in penalties as described in the above paragraph.
- i. written notification and documentation of the decision to either purchase, refurbish or replace Units 14, 22 and/or 25, as required by Paragraph 12.f;
- ii. creation of the St. Thomas Spare Parts Tracking System, including the required lists/logs, as required by Paragraph 14;
- iii. installation and utilization of two modules of the IBM Maximo system software that provides for monitoring of spare parts, as required by the Spare Parts Inventory Program and Paragraph 14;
- iv. submission of request to permitting authority for water to fuel ratios established during performance testing as required by Paragraph 15.a;
- v. operation and utilization of an industrial grade water system to supply the water injection system, as required by Paragraph 15.c;
- vi. training of employees pursuant to the Water Injection System

  Training Program, as required by Paragraph 15.e and 15.f;
- vii. hiring and retention of an on-site technical person or engineer, as required by Paragraph 15.g and 15.h;
  - viii. implementation of the O&M Plan, as required by Paragraph 15.j

and 15.k;

- ix. submission of the Water Injection System Data Sheet, as required by Paragraph 15.1;
- x. completion of Water Injection System Third Party Audit every 24 months, as required by Paragraph 15.m;
- xi. submission of Water Injection System Third Party Audit proposed auditor credentials, as required by Paragraph 15.n;
- xii. submission of Water Injection System Third Party Audit Reports, including drafts, concurrently to EPA and VIWAPA, as required by Paragraphs 15.p and 15.q;
- xiii. submission of VIWAPA's responses to the Water Injection

  System Third Party Audit Report, as required by Paragraph 15.r, 15.p and 15.s;
- xiv. implementation of Water Injection System Third Party Audit and EPA approved recommendations, as required by Paragraph 15.t;
- xv. completion of Water Injection System Self Audit every 24 months, as required by Paragraph 15.u;
- xvi. submission of Water Injection System Self Audit Report and Defendant's recommendations, as required by Paragraph 15.v;
- xvii. implementation of Water Injection System Self Audit and EPA approved recommendations, as required by Paragraph 15.w;
- xviii. completion of CEMS daily calibration data sheet, as required by Paragraph 16.b;
- xix. completion of CEMS/COMS Third Party Audit every 24 months, as required by Paragraph 16.c;

xx. submission of CEMS/COMS Third Party Audit proposed auditor credentials, as required by Paragraph 16.d;

xxi. submission of CEMS/COMS Third Party Audit Report, including drafts, concurrently to EPA and VIWAPA, as required by Paragraphs 16.f and 16.g;

xxii. submission of VIWAPA's responses to the CEMS/COMS Third Party Audit Report, as required by Paragraph 16.h and 16.i;

xxiii. implementation of CEMS/COMS Third Party Audit and EPA approved recommendations, as required by Paragraph 16.j;

xxiv. completion of CEMS/COMS Self Audit every 24 months, as required by Paragraph 16.k;

xxv. submission of CEMS/COMS Self Audit Report and Defendant's recommendations, as required by Paragraph 16.1;

xxvi. implementation of CEMS/COMS Self Audit and EPA-approved recommendations, as required by Paragraph 16.m;

xxvii. implementation and compliance with the QAP, as required by Paragraph 16.n and 16.o;

xxviii. installation and operation of an audible alarm in the St. Thomas Facility's control room that indicates when any CEMS records emissions at levels that are approaching an emission limit, as required by Paragraph 16.p;

xxix. installation and operation of an audible alarm in the St. Thomas Facility's control room that is automatically activated to operate whenever any NO<sub>X</sub> CEMS is not operating and manually activated to operate whenever any NO<sub>X</sub> CEMS has not passed required CGAs and/or RATAs, as required by Paragraph 16.q;

xxx. hiring of an outside entity to train VIWAPA employees on CEMS and COMS, as required by Paragraph 16.r;

xxxi. hiring, retention, and availability on-site of a technical person or engineer to properly operate and maintain CEMS and COMS and to respond, as required by Paragraph 16.s and 16.t;

xxxii. installation of the video camera system, as required by Paragraph 17.a and b.;

xxxiii. conducting Method 9 readings, as required by Paragraph 17.c;
xxxiv. maintainance of recordings from the video camera for at least 6
rolling months and make recordings available to EPA upon request, as required by Paragraph
17.d;

xxxv. completion of CGAs and RATAs on the CEMS for each Unit, as required by Paragraph 18;

xxxvi. completion of stack testing, and any follow-up stack testing as necessary, as required by Paragraph 19;

xxxvii. submission of stack testing protocol to EPA, as required by Paragraph 19.b;

xxxviii. submission of stack test results and Stack Test Corrective Action Plan, as required by Paragraph 19.c and 19.d;

xxxix. operation of a unit using fuel types that VIWAPA demonstrated comply with applicable emission limits, as required by Paragraph 19.g;

xl. submission of request to permitting authority for water to fuel ratios established during performance testing as required by Paragraph 19.h;

xli. submission of NSPS Subpart KKKK semiannual reports for Unit 25, as required by Paragraph 20.a;

xlii. installation of Unit 14 fuel atomizer, as required by Paragraph 21.b;

xliii. submission of Fuel Atomizer Progress Report, as required by Paragraph 21.d;

xliv. implementation of any necessary corrective action measures and further repairs, as required by Paragraph 21.e;

xlv. ceasing operation of Unit 14, pursuant to Paragraph 21.f.ii;

xlvi. submission of request for removal of Unit 14 from the St. Thomas

Title V Operating Permit, as required by Paragraph 21.f;

xlvii. compliance with requirements of the RICE NESHAP as required by Paragraph 22.a;

xlviii. use of diesel fuel at the St. John Unit that meets the requirements of 40 C.F.R. § 80.510(b) for nonroad engines, as required by Paragraph 22.b;

xlix. submission of a request to VIDPNR to withdraw the St. John Facility Title V Operating Permit and request issuance of a St. John Facility minor source state operating permit as required by Paragraph 22.c;

c. For each instance in which a listed spare part is not procured within sixty

Days of when it fell below the minimum quantity identified in the St. Thomas Spare Parts

Inventory Program, where the failure to obtain the part did not result, after that sixty day period,
in delays in repairing either the water injection system or any of the CEMS, the following

stipulated penalties shall accrue per Day for each violation of the St. Thomas Spare Parts Inventory Program's procurement requirements as identified below:

Penalty Per Violation Per Day	Period of Noncompliance
\$ 75	1st through 30th Day
\$ 150	31st through 90th Day
\$ 300	91st Day and beyond

d. For each instance in which a listed spare part is not procured within sixty

Days of when it fell below the minimum quantity identified in the St. Thomas Spare Parts

Inventory Program, where the failure to obtain the part resulted, after that sixty (60) Day period,
in delays in repairing either the water injection system or any of the CEMS, the following
stipulated penalties shall accrue per Day of each resulting delay due to violation of the St.

Thomas Spare Parts Inventory Program's procurement requirements as identified below:

Penalty Per Violation Per Day	Period of Noncompliance
\$ 150	1st through 30th Day
\$ 300	31st through 90th Day
\$ 600	91st Day and beyond

44. <u>Reporting Requirements</u>. The following stipulated penalties shall accrue per violation per Day for each violation of the reporting requirements of Section VI (Reporting Requirements):

Penalty Per Violation Per Day	Period of Noncompliance
\$ 150	1st through 14th Day
\$ 300	15th through 30th Day
\$ 1,000	31st Day and beyond

- 45. Except as in Paragraphs 37 42 above, stipulated penalties under this Section shall begin to accrue on the Day after performance is due or on the Day a violation occurs, whichever is applicable, and shall continue to accrue until performance is satisfactorily completed or until the violation ceases. Stipulated penalties shall be calculated at the end of each applicable calendar quarter and reported to the United States in the applicable Quarterly Report required under Section VI (Reporting Requirements). Stipulated penalties shall accrue simultaneously for separate violations of this Consent Decree.
- 46. VIWAPA shall self-assess, without prior demand from the United States, stipulated penalties accrued and owing under this Section in accordance with the following procedures:
- a. On or before the 30th day following the end of each calendar quarter (i.e., by April 30, July 30, October 30, and January 30 after the Effective Date), VIWAPA shall determine, and provide to EPA a detailed and accurate accounting of, the full amount of VIWAPA's stipulated penalty liability, pursuant to Paragraphs 38 through 45, for the preceding quarter pursuant to Paragraph 46.
- b. Provided that VIWAPA timely follows the schedule and procedures set forth above with self-assessing and reporting its stipulated penalty liability, payment to the United States shall be reduced to 50% of the amount specified in the accounting referenced above. This reduced payment amount shall be deemed to discharge and settle VIWAPA's liability for stipulated penalties under this Section for the violations that are the subject of such payments. Discharge and settlement as provided in this Paragraph shall be available to VIWAPA only if VIWAPA makes timely assessment and payment with respect to a particular violation of the Consent Decree within thirty (30) Days after the end of the quarter in question.

In the absence of such timely action by VIWAPA, VIWAPA shall be liable for the full amount of the stipulated penalties for such violations for the quarter in question.

- c. If any stipulated penalties are due in connection with a decision from EPA pursuant to Paragraph 55 of Section VIII (Force Majeure), and VIWAPA elects not to pursue dispute resolution under Paragraph 56 of Section VIII, VIWAPA may self-assess, report and pay those stipulated penalties in accordance with Paragraph 46a. and b. above, provided that VIWAPA makes this stipulated penalty payment within thirty (30) Days after the end of the quarter in which it received the decision under Paragraph 55.
- 47. The United States may in its unreviewable exercise of its discretion, reduce or waive stipulated penalties otherwise due it under this Consent Decree. If VIWAPA has not self-assessed and paid stipulated penalties in accordance with Paragraph 46 above, VIWAPA shall pay any stipulated penalty within 30 Days of receiving the United States' written demand.
- 48. Stipulated penalties shall continue to accrue as provided in Paragraph 46, during any Dispute Resolution, but need not be paid until the following:
- a. If the dispute is resolved by agreement or by a decision of EPA that is not appealed to the Court, Defendant shall pay accrued penalties determined to be owing, together with interest, to the United States within 30 Days of the effective date of the agreement or the receipt of EPA's decision or order.
- b. If the dispute is appealed to the Court and the United States prevails in whole or in part, Defendant shall pay all accrued penalties determined by the Court to be owing, together with interest, within 60 Days of receiving the Court's decision or order, except as provided in subparagraph c, below.
  - c. If any Party appeals the District Court's decision, Defendant shall pay all

accrued penalties determined to be owing, together with interest, within 15 Days of receiving the final appellate court decision.

- 49. Defendant shall pay stipulated penalties owing to the United States in the manner set forth and with the confirmation notices required by Paragraph 10, except that the transmittal letter shall state that the payment is for stipulated penalties and shall state for which violation(s) the penalties are being paid.
- 50. If Defendant fails to pay stipulated penalties according to the terms of this Consent Decree, Defendant shall be liable for interest on such penalties, as provided for in 28 U.S.C. § 1961, accruing as of the date payment became due. Nothing in this Paragraph shall be construed to limit the United States from seeking any remedy otherwise provided by law for Defendant's failure to pay any stipulated penalties.
- 51. Subject to the provisions of Section XI of this Consent Decree (Effect of Settlement/Reservation of Rights), the stipulated penalties provided for in this Consent Decree shall be in addition to any other rights, remedies, or sanctions available to the United States for Defendant's violation of this Consent Decree or applicable law. Where a violation of this Consent Decree is also a violation of the Clean Air Act, Defendant shall be allowed a credit, for any stipulated penalties paid, against any statutory penalties imposed for such violation.

# VIII. FORCE MAJEURE

52. "Force majeure," for purposes of this Consent Decree, is defined as any event arising from causes beyond the control of Defendant, of any entity controlled by Defendant, or of Defendant's contractors that delays or prevents the performance of any obligation under this Consent Decree despite Defendant's best efforts to fulfill the obligation. The requirement that Defendant exercise "best efforts to fulfill the obligation" includes using best efforts to anticipate

any potential force majeure event and best efforts to address the effects of any such event (a) as it is occurring and (b) after it has occurred to prevent or minimize any resulting delay or prevention of performance to the greatest extent possible. "Force Majeure" does not include Defendant's financial inability to perform any obligation under this Consent Decree.

53. If any event occurs or has occurred that may delay or prevent the performance of any obligation under this Consent Decree, whether or not caused by a force majeure event, Defendant shall provide notice orally or by electronic or facsimile transmission to EPA personnel identified in Section XIII (Notices), within 72 hours of when Defendant first knew that the event might cause a delay. Within seven days thereafter, Defendant shall provide in writing to EPA an explanation and description of the reasons for the delay or prevention of performance; the anticipated duration of the delay or prevention of performance; all actions taken or to be taken to prevent or minimize the delay or prevention of performance; a schedule for implementation of any measures to be taken to prevent or mitigate the delay or prevention of performance or the effect of the delay or prevention of performance; Defendant's rationale for attributing such delay or prevention of performance to a force majeure event if it intends to assert such a claim; and a statement as to whether, in the opinion of Defendant, such event may cause or contribute to an endangerment to public health, welfare or the environment. Defendant shall include with any notice all available documentation supporting the claim that the delay or prevention of performance was attributable to force majeure. Failure to comply with the above requirements shall preclude Defendant from asserting any claim of force majeure for that event for the period of time of such failure to comply, and for any additional delay or prevention of performance caused by such failure. Defendant shall be deemed to know of any circumstance of which Defendant, any entity controlled by Defendant, or Defendant's contractors knew or should

have known.

- 54. If EPA agrees that the delay/prevention of performance or anticipated delay/prevention of performance is attributable to a force majeure event, the time for performance of the obligations under this Consent Decree that are affected by the force majeure event will be extended by EPA for such time as is necessary to complete those obligations. An extension of the time for performance of the obligations affected by the force majeure event shall not, of itself, extend the time for performance of any other obligation. EPA will notify Defendant in writing of the length of the extension, if any, for performance of the obligations affected by the force majeure event.
- 55. If EPA does not agree that the delay or anticipated delay has been or will be caused by a force majeure event, EPA will notify Defendant in writing of its decision.
- 56. If Defendant elects to invoke the dispute resolution procedures set forth in Section IX (Dispute Resolution), it shall do so no later than 15 days after receipt of EPA's notice. In any such proceeding, Defendant shall have the burden of demonstrating by a preponderance of the evidence that the delay/prevention of performance or anticipated delay/prevention of performance has been or will be caused by a force majeure event, that the duration of the delay/prevention of performance or the extension sought was or will be warranted under the circumstances, that best efforts were exercised to avoid and mitigate the effects of the delay or prevention of performance, and that Defendant complied with the requirements of Paragraphs 54 and 55, above. If Defendant carries this burden, the delay or prevention of performance at issue shall be deemed not to be a violation by Defendant of the affected obligation of this Consent Decree identified to EPA and the Court.

### IX. DISPUTE RESOLUTION

- 57. Unless otherwise expressly provided for in this Consent Decree, the dispute resolution procedures of this Section shall be the exclusive mechanism to resolve disputes arising under or with respect to this Consent Decree. Defendant's failure to seek resolution of a dispute under this Section shall preclude Defendant from raising any such issue as a defense to an action by the United States to enforce any obligation of Defendant arising under this Decree.
- 58. <u>Informal Dispute Resolution</u>. Any dispute subject to Dispute Resolution under this Consent Decree shall first be the subject of informal negotiations. The dispute shall be considered to have arisen when Defendant sends the United States a written Notice of Dispute. Such Notice of Dispute shall state clearly the matter in dispute. The period of informal negotiations shall not exceed 20 Days from the date the dispute arises, unless that period is modified by written agreement. If the Parties cannot resolve a dispute by informal negotiations, then the position advanced by the United States shall be considered binding unless, within 10 Days after the conclusion of the informal negotiation period, Defendant invokes formal dispute resolution procedures as set forth below.
- 59. <u>Formal Dispute Resolution</u>. Defendant shall invoke formal dispute resolution procedures, within the time period provided in the preceding Paragraph, by serving on the United States a written Statement of Position regarding the matter in dispute. The Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting Defendant's position and any supporting documentation relied upon by Defendant.
- 60. The United States shall serve its Statement of Position within 60 Days of receipt of Defendant's Statement of Position. The United States' Statement of Position shall include, but need not be limited to, any factual data, analysis, or opinion supporting that position and any

supporting documentation relied upon by the United States. The United States' Statement of Position shall be binding on Defendant, unless Defendant files a motion for judicial review of the dispute in accordance with the following Paragraph.

- 61. Defendant may seek judicial review of the dispute by filing with the Court and serving on the United States, in accordance with Section XIII (Notices), a motion requesting judicial resolution of the dispute. The motion must be filed within 10 Days of receipt of the United States' Statement of Position pursuant to the preceding Paragraph. The motion shall contain a written statement of Defendant's position on the matter in dispute, including any supporting factual data, analysis, opinion, or documentation, and shall set forth the relief requested and any schedule within which the dispute must be resolved for orderly implementation of the Consent Decree.
- 62. The United States shall respond to Defendant's motion within the time period allowed by the Local Rules of this Court. Defendant may file a reply memorandum, to the extent permitted by the Local Rules.

### 63. Standard of Review

- a. <u>Disputes Concerning Matters Accorded Record Review</u>. Except as otherwise provided in this Consent Decree, in any dispute brought under Paragraph 59 pertaining to adequacy or appropriateness of plans, procedures to implement plans, schedules or any other items requiring approval by EPA under this Consent Decree; and all other disputes that are accorded review on the administrative record under applicable principles of administrative law, Defendant shall have the burden of demonstrating, based on the administrative record, that the position of the United States is arbitrary and capricious or otherwise not in accordance with law.
  - b. Other Disputes. Except as otherwise provided in this Consent Decree, in

any other dispute brought under Paragraph 59, Defendant shall bear the burden of demonstrating that its proposal will achieve compliance with the terms and conditions of this Consent Decree, its permits, and the Act in an expeditious manner.

64. The invocation of dispute resolution procedures under this Section shall not, by itself, extend, postpone, or affect in any way any obligation of Defendant under this Consent Decree, unless and until final resolution of the dispute so provides. Stipulated penalties with respect to the disputed matter shall continue to accrue from the first Day of noncompliance, but payment shall be stayed pending resolution of the dispute as provided in Paragraph 49. If Defendant does not prevail on the disputed issue, stipulated penalties shall be assessed and paid as provided in Section VII (Stipulated Penalties).

### X. INFORMATION COLLECTION AND RETENTION

- 65. The United States and its representatives, including attorneys, contractors, and consultants, shall have the right of entry into any facility covered by this Consent Decree, at all reasonable times, upon presentation of credentials, to:
  - a. monitor the progress of activities required under this Consent Decree;
- b. verify any data or information submitted to the United States in accordance with the terms of this Consent Decree;
- c. obtain samples and, upon request, splits of any samples taken by Defendant or its representatives, contractors, or consultants;
  - d. obtain documentary evidence, including photographs and similar data; and
  - e. assess Defendant's compliance with this Consent Decree.
- 66. Upon request, Defendant shall provide EPA or its authorized representatives splits of any samples taken by Defendant. Upon request, EPA shall provide Defendant splits of any

samples taken by EPA.

- 67. Until five years after the termination of this Consent Decree, Defendant shall retain, and shall instruct its contractors and agents to preserve, all non-identical copies of all documents, records, or other information (including documents, records, or other information in electronic form) in its or its contractors' or agents' possession or control, or that come into its or its contractors' or agents' possession or control, and that relate in any manner to Defendant's performance of its obligations under this Consent Decree. This information-retention requirement shall apply regardless of any contrary corporate or institutional policies or procedures. At any time during this information-retention period, upon request by the United States, Defendant shall provide copies of any documents, records, or other information required to be maintained under this Paragraph.
- Paragraph, Defendant shall notify the United States at least 90 Days prior to the destruction of any documents, records, or other information subject to the requirements of the preceding Paragraph and, upon request by the United States, Defendant shall deliver any such documents, records, or other information to EPA. Defendant may assert that certain documents, records, or other information is privileged under the attorney-client privilege or any other privilege recognized by federal law. If Defendant asserts such a privilege, it shall provide the following: (1) the title of the document, record, or information; (2) the date of the document, record, or information; (3) the name and title of each author of the document, record, or information; (4) the name and title of each addressee and recipient; (5) a description of the subject of the document, record, or information; and (6) the privilege asserted by Defendant. However, no documents, records, or other information created or generated pursuant to the requirements of

this Consent Decree shall be withheld on grounds of privilege.

- 69. Defendant may also assert that information required to be provided under this Section is protected as Confidential Business Information ("CBI") under 40 C.F.R. Part 2. As to any information that Defendant seeks to protect as CBI, Defendant shall follow the procedures set forth in 40 C.F.R. Part 2.
- 70. This Consent Decree in no way limits or affects any right of entry and inspection, or any right to obtain information, held by the United States pursuant to applicable federal laws, regulations, or permits, nor does it limit or affect any duty or obligation of Defendant to maintain documents, records, or other information imposed by applicable federal or state laws, regulations, or permits.

### XI. EFFECT OF SETTLEMENT/RESERVATION OF RIGHTS

- 71. This Consent Decree resolves the civil claims of the United States for the violations alleged in the Complaint filed in this action through the Date of Lodging. As of the Effective Date, Defendant shall no longer be required to respond to the recordkeeping and reporting requirements created by the outstanding CAA Section 114 information requests applicable to the St. Thomas Facility, as those obligations will be addressed through Quarterly Reporting requirements of this Decree.
- 72. Except as expressly stated in Paragraph 71, the United States reserves all legal and equitable remedies available to enforce the provisions of this Consent Decree, including but not limited to seeking the appointment of a monitor or receiver if the United States determines that the Defendant is not complying with the terms and/or Objectives of this Consent Decree.

  This Consent Decree shall not be construed to limit the rights of the United States to obtain penalties or injunctive relief under the Act or implementing regulations, or under other federal

laws, regulations, or permit conditions, except as expressly specified in Paragraph 71. The United States further reserves all legal and equitable remedies to address any imminent and substantial endangerment to the public health or welfare or the environment arising at, or posed by, Defendant's St. Thomas Facility or St. John Facility, whether related to the violations addressed in this Consent Decree or otherwise.

- 73. In any subsequent administrative or judicial proceeding initiated by the United States for injunctive relief, civil penalties, other appropriate relief relating to the St. Thomas Facility or the St. John Facility, Defendant shall not assert, and may not maintain, any defense or claim based upon the principles of waiver, res judicata, collateral estoppel, issue preclusion, claim preclusion, claim-splitting, or other defenses based upon any contention that the claims raised by the United States in the subsequent proceeding were or should have been brought in the instant case, except with respect to claims that have been specifically resolved pursuant to Paragraph 72 of this Section.
- 74. This Consent Decree is not a permit, or a modification of any permit, under any federal, State, or local laws or regulations. Defendant is responsible for achieving and maintaining complete compliance with all applicable federal, State, and local laws, regulations, and permits; and Defendant's compliance with this Consent Decree shall be no defense to any action commenced pursuant to any such laws, regulations, or permits, except as set forth herein. The United States does not, by its consent to the entry of this Consent Decree, warrant or aver in any manner that Defendant's compliance with any aspect of this Consent Decree will result in compliance with provisions of the Act, 42 U.S.C. § 7401 *et seq.*, or with any other provisions of federal, State, or local laws, regulations, or permits.
  - 75. This Consent Decree does not limit or affect the rights of Defendant or of the

United States against any third parties, not party to this Consent Decree, nor does it limit the rights of third parties, not party to this Consent Decree, against Defendant, except as otherwise provided by law.

76. This Consent Decree shall not be construed to create rights in, or grant any cause of action to, any third party not party to this Consent Decree.

# XII. COSTS

77. The Parties shall bear their own costs of this action, including attorneys' fees, except that the United States shall be entitled to collect the costs (including attorneys' fees) incurred in any action necessary to collect any portion of the civil penalty or any stipulated penalties due but not paid by Defendant.

# XIII. NOTICES

78. Unless otherwise specified herein, whenever notifications, submissions, or communications are required by this Consent Decree, they shall be made in writing and addressed as follows:

# To the United States:

Chief, Environmental Enforcement Section Environment and Natural Resources Division U.S. Department of Justice Box 7611 Ben Franklin Station Washington, D.C. 20044-7611 Re: DOJ No. 90-5-2-1-10424

### and

Robert Buettner
Air Compliance Branch
Division of Enforcement and Compliance Assistance
U.S. Environmental Protection Agency, Region 2
290 Broadway, 21st Floor
New York, New York 10007-1866
(212) 637-5031

# Buettner.Robert@epa.gov

and

Flaire Mills
Associate Regional Counsel
U.S. Environmental Protection Agency, Region 2
Office of Regional Counsel
290 Broadway, 17th Floor
New York, New York 10007-1866
(212) 637-3198
Mills.Flaire@epa.gov

# To Defendant(s):

Kevin Smalls
Director of Plant Production
Virgin Islands Water and Power Authority
Richmond Power Plant
#1 Penitentiary Land
St. Croix, VI 00821
(340) 773-2796
Kevin.smalls@viwapa.vi

John Woodson St. Thomas Plant Superintendent Virgin Islands Water and Power Authority P.O. Box 1450 St. Thomas, VI 00804-1450 (340) 774-3553 Ext. 2204 John.Woodson@viwapa.vi

Maxwell George Environmental Affairs Manager Virgin Islands Water and Power Authority P.O. Box 1450 St. Thomas, VI 00804-1450 (340) 774-3553 Ext. 2274 Maxwell.george@viwapa.vi

Lorelei Farrington, Esq. General Counsel Virgin Islands Water and Power Authority P.O. Box 1450 St. Thomas, VI 00804-1450 (340) 715-6561 Lorelei.farrington@viwapa.vi

- 79. Any Party may, by written notice to the other Parties, change its designated notice recipient or notice address provided above.
- 80. Notices submitted pursuant to this Section shall be deemed submitted upon mailing, unless otherwise provided in this Consent Decree or by mutual agreement of the Parties in writing.

### XIV. EFFECTIVE DATE

81. The Effective Date of this Consent Decree shall be the date upon which this Consent Decree is entered by the Court or a motion to enter the Consent Decree is granted, whichever occurs first, as recorded on the Court's docket; provided, however, that Defendant hereby agrees that it shall be bound to perform duties scheduled to occur prior to the Effective Date. In the event the United States withdraws or withholds consent to this Consent Decree before entry, or the Court declines to enter the Consent Decree, then the preceding requirement to perform duties scheduled to occur before the Effective Date shall terminate.

### XV. RETENTION OF JURISDICTION

82. The Court shall retain jurisdiction over this case until termination of this Consent Decree, for the purpose of resolving disputes arising under this Decree or entering orders modifying this Decree, pursuant to Sections IX (Dispute Resolution) and XVI (Modification), or effectuating or enforcing compliance with the terms of this Decree.

### XVI. MODIFICATION

83. The terms of this Consent Decree, including any attached appendices, may be modified only by a subsequent written agreement signed by all the Parties. Where the modification constitutes a material change to this Decree, it shall be effective only upon approval

by the Court.

84. Any disputes concerning modification of this Decree shall be resolved pursuant to Section IX (Dispute Resolution), provided, however, that, instead of the burden of proof provided by Paragraph 63, the Party seeking the modification bears the burden of demonstrating that it is entitled to the requested modification in accordance with Federal Rule of Civil Procedure 60(b).

### XVII. <u>TERMINATION</u>

- 85. After Defendant has completed the requirements of Section V (Compliance Requirements), has maintained satisfactory compliance with its applicable permits for a period of three years, has satisfactorily complied with all other requirements of this Consent Decree, and has paid the civil penalty and any accrued stipulated penalties as required by this Consent Decree, Defendant may serve upon the United States a Request for Termination, stating that Defendant has satisfied those requirements, together with all necessary supporting documentation.
- 86. Following receipt by the United States of Defendant's Request for Termination, the Parties shall confer informally concerning the request and any disagreement that the Parties may have as to whether Defendant has satisfactorily complied with the requirements for termination of this Consent Decree. If the United States agrees that the Decree may be terminated, the Parties shall submit, for the Court's approval, a joint stipulation terminating the Decree.
- 87. If the United States does not agree that the Decree may be terminated, Defendant may invoke Dispute Resolution under Section IX (Dispute Resolution). However, Defendant shall not seek Dispute Resolution of any dispute regarding termination, under Paragraph 59 of

Section IX (Dispute Resolution), until 90 days after service of its Request for Termination.

#### XVIII. PUBLIC PARTICIPATION

88. This Consent Decree shall be lodged with the Court for a period of not less than 30 Days for public notice and comment in accordance with 28 C.F.R. § 50.7. The United States reserves the right to withdraw or withhold its consent if the comments regarding the Consent Decree disclose facts or considerations indicating that the Consent Decree is inappropriate, improper, or inadequate. Defendant consents to entry of this Consent Decree without further notice and agrees not to withdraw from or oppose entry of this Consent Decree by the Court or to challenge any provision of the Decree, unless the United States has notified Defendant in writing that it no longer supports entry of the Decree.

### XIX. SIGNATORIES/SERVICE

- 89. Each undersigned representative of Defendant and the Assistant Attorney General for the Environment and Natural Resources Division of the Department of Justice certifies that he or she is fully authorized to enter into the terms and conditions of this Consent Decree and to execute and legally bind the Party he or she represents to this document.
- 90. This Consent Decree may be signed in counterparts, and its validity shall not be challenged on that basis. Defendant agrees to accept service of process by mail with respect to all matters arising under or relating to this Consent Decree and to waive the formal service requirements set forth in Rules 4 and 5 of the Federal Rules of Civil Procedure and any applicable Local Rules of this Court including, but not limited to, service of a summons.

# XX. INTEGRATION

91. This Consent Decree constitutes the final, complete, and exclusive agreement and understanding among the Parties with respect to the settlement embodied in the Decree and

supersedes all prior agreements and understandings, whether oral or written, concerning the settlement embodied herein. Other than deliverables that are subsequently submitted and approved pursuant to this Decree, no other document, nor any representation, inducement, agreement, understanding, or promise, constitutes any part of this Decree or the settlement it represents, nor shall it be used in construing the terms of this Decree.

### XXI. FINAL JUDGMENT

92. Upon approval and entry of this Consent Decree by the Court, this Consent Decree shall constitute a final judgment of the Court as to the United States and Defendant. The Court finds that there is no just reason for delay and therefore enters this judgment as a final judgment under Fed. R. Civ. P. 54 and 58.

### XXII. APPENDICES

- 93. The following appendices are attached to and part of this Consent Decree:
- "Appendix A" is a copy of Sections 7.04 and 7.05 and Exhibit B of the July 25, 2013 contract with Vitol;
- "Appendix B" are examples of the spreadsheets required to be used to track the Spare Parts Inventory Program for the water injection systems and continuous monitoring systems;
  - "Appendix C" is the list of spare parts currently on order;
- "Appendix D" is a list of items required to be included in the St. Thomas O&M Plan;
  - "Appendix E" is an example of the Water Injection System Data Sheets;
- "Appendix F" is the list of water injection system components to evaluate during audits; and

"Appendix G" is the list of continuous monitoring system components relating to evaluate during audits.

Dated and entered this day of	
	CURTIS V. GÓMEZ
	UNITED STATES DISTRICT JUDGE
	DISTRICT OF THE VIRGIN ISLANDS

#### FOR PLAINTIFF UNITED STATES OF AMERICA:

Dated: 9/21/15

Assistant Attorney General

Environment and Natural Resources Division

United States Department of Justice

Dated:  $\frac{9/21/2015}{}$ 

MYLES E. FLINT, II

Senior Counsel

LAURA ROWLEY

Senior Counsel

**Environmental Enforcement Section** 

Environment and Natural Resources Division

United States Department of Justice

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RONALD W. SHARPE

United States Attorney

District of the Virgin Islands

#### JOYCELYN HEWLETT

Assistant United States Attorney Federal Building and U.S. Courthouse 5500 Veterans Drive Room 260 St. Thomas, Virgin Islands 00802 joycelyn.hewlett@usdoj.gov FOR PLAINTIFF UNITED STATES OF AMERICA:

Dated: 9/21/15

ERIC SCHAAF

Regional Counsel

U.S. Environmental Protection Agency, Region 2

DENISE LEONG
Assistant Regional Counsel
FLAIRE MILLS
Associate Regional Counsel
Office of Regional Counsel
U.S. Environmental Protection Agency, Region 2
290 Broadway
New York, New York 10007

FOR DEFENDANT VIRGIN ISLANDS WATER AND POWER AUTHORITY:

Dated: 9315

HUOO V. HODGE, JR.

**Executive Director** 

Virgin Islands Water and Power Authority

P.O. Box 1450

St. Thomas, VI 00804-1450

**EXECUTION VERSION** 

# AGREEMENT FOR (1) THE CONSTRUCTION, OWNERSHIP, OPERATION, MAINTENANCE AND TRANSFER OF LPG FACILITIES, (2) LPG SUPPLY AND

(3) MANAGING THE REPOWERING OF CERTAIN COMBUSTION TURBINE UNITS

between

**VIRGIN ISLANDS WATER AND POWER AUTHORITY** 

and

VITOL VIRGIN ISLANDS CORP.

Dated July 25, 2013

### Article 7 CONSTRUCTION SCHEDULE

<u>Section 7.01</u> <u>Commencement of Work</u>. After satisfaction of all of the Construction Conditions and WAPA's delivery of the written notice to proceed with the Work, Seller shall commence performing the Work.

Section 7.02 Creation of Punchlist. When Seller believes that the Constructed and Converted Facilities are ready for Commissioning and Testing and the Project Facilities are capable of delivering LPG to the Delivery Point at the Harley Plant and the Richmond Plant, Seller will prepare and submit to WAPA a working outstanding items list, which list (a "Working Outstanding Items List"), may include those items of Work remaining to be completed with respect to the Constructed and Converted Facilities. Initially, such Working Outstanding Items List may serve as a working tool for Seller to track all outstanding Work for the Constructed and Converted Facilities, Following receipt of the Working Outstanding Items List, Seller and WAPA shall jointly walk-down the Constructed and Converted Facilities and confer together as to the items from the Working Outstanding Items List which should be included on the finalized punchlist. Seller shall then update the Working Outstanding Items List or create a new list to reflect the result of such joint walk down and deliver the same to WAPA for its review and approval, which submitted list shall be explicitly designated as the "Proposed Punchlist" for the Constructed and Converted Facilities. If WAPA does not deliver any changes to the Proposed Punchlist to Seller within five (5) Business Days after receipt from the Seller, then such Proposed Punchlist shall be deemed approved. The Proposed Punchlist that is ultimately approved or deemed to have been approved by WAPA shall be referred to as the "Punchlist". If the Punchlist is not finalized by the Substantial Completion Deadline, the Proposed Punchlist as modified by WAPA shall be deemed the Punchlist for the Constructed and Converted Facilities for all purposes hereunder until the Parties resolve such dispute and otherwise finalize the Punchlist. Seller shall note on such Punchlist the items under dispute.

Section 7.03 Completion of Punchlist. Seller shall proceed promptly to complete and correct all items on the Punchlist. On a monthly basis after Substantial Completion, Seller shall revise and update the Punchlist to include the date(s) that items listed on such Punchlist are completed by Seller and accepted by WAPA. Notwithstanding any of the foregoing, the items listed on such Punchlist shall not be considered complete until WAPA shall have inspected such items and acknowledged, by notation on the updated Punchlist, that such item of Work is complete. If WAPA does not so inspect and deliver such notations on the updated Punchlist to Seller (or dispute completion of the applicable items of Work if not accepted) within a reasonable period of time, and Seller has actually completed and corrected any Punchlist item listed on such Punchlist, such Punchlist item shall be deemed completed on the date that is ten (10) days after Seller submits the updated Punchlist containing such Punchlist item to WAPA.

<u>Section 7.04</u> <u>Substantial Completion</u>. The following are the conditions precedent for the Constructed and Converted Facilities to achieve Substantial Completion:

- (a) the Constructed and Converted Facilities have achieved Mechanical Completion;
- (b) Commissioning and Testing has been completed successfully as certified by duly authorized representatives of WAPA and Seller;

- (c) the Constructed and Converted Facilities have been constructed in accordance with Seller's Specifications, other than Punchlist items;
- (d) the Punchlist shall be in final form or be deemed approved as provided for in <u>Section 7.02</u> and only Non-Critical Deficiencies remain on the Punchlist;
- (e) all storage tanks in the Delivery Infrastructure have been loaded with the necessary quantity of LPG to enable Seller to comply with its obligations hereunder;
- (f) Seller is capable of commencing the continual delivery of WAPA's requirements of LPG to the Delivery Points and vaporized LPG to the headers of the turbines as set forth herein;
- (g) Seller shall have delivered the Notice of Substantial Completion to WAPA.

Section 7.05 Notice of Substantial Completion. When Seller believes that it has satisfied the provisions of Section 7.04, Seller shall deliver to WAPA written notice that it has achieved Substantial Completion (a "Notice of Substantial Completion"). WAPA shall, as promptly as reasonably practicable but in no case no longer than three (3) business days after receipt of such Notice of Substantial Completion, issue a certificate confirming achievement of Substantial Completion (the "Certificate of Substantial Completion") dated to reflect the Substantial Completion Date, or if WAPA rejects Seller's Notice of Substantial Completion, respond in writing giving its reasons for such rejection and Seller shall take the appropriate corrective action. Upon completion of such corrective action, Seller shall provide to WAPA a new Notice of Substantial Completion for approval. This process shall be repeated on an iterative basis until WAPA accepts the Notice of Substantial Completion and issues a Certificate of Substantial Completion at which point "Substantial Completion" shall have been achieved.

Section 7.06 Final Completion. "Final Completion" shall be deemed to have occurred only if all of the following have occurred:

- (a) Substantial Completion shall have been achieved;
- (b) all items on the Punchlist shall have been completed by Seller;
- (c) all Seller's and Subcontractor's personnel shall have left WAPA's Facilities, and all surplus materials, waste materials and rubbish shall have been removed from therefrom;
  - (d) Seller shall have delivered the Notice of Final Completion to WAPA;
  - (e) all final lien waivers have been obtained; and
- (f) all red and blue versions of manuals, drawings and other documents expressly required to be delivered by Seller hereunder have been delivered to WAPA.

Section 7.07 Notice of Final Completion. Seller shall deliver to WAPA written notice that it has achieved Final Completion (a "Notice of Final Completion") that it has achieved Final Completion. Within two (2) Business Days after receipt of the Notice of Final Completion, WAPA shall issue a certificate confirming achievement of Final Completion ("Certificate of Final

Exhibit B
Commissioning and Testing Standards and Procedures

[TO BE COMPLETED AS AN IMMEDIATE CONDITION]

#### Draft - Exhibit B

# <u>Commissioning and Testing Standards and Procedures for the LPG Terminal facilities scope</u>

The Seller will be responsible for the commissioning of the terminal. Commissioning will be undertaken by the Sellers operational team after the facilities have been handed over by the Sellers project team upon mechanical completion and commissioning readiness check as described below.

#### **Commissioning Readiness Check**

Upon reaching Mechanical Completion a Commissioning Readiness Check will be conducted as per VTTI procedure VTTI-21.10.PR.001

The objective of this audit is to verify that the terminal is ready for commissioning and any shortcomings have been properly addressed. A positive result from the commissioning readiness audit is required to proceed with the actual commissioning. The "independent" audit teams make use of standardized checklists that cover all required items and hold points; this provides an effective and efficient assessment.

Among other the following subjects are covered by the checklists:

- > Roles and Responsibilities
- > Planning and Schedule
- > Preparation
- Process Safety Management
- > Safety systems
- > Risk Mitigation
- > HAZOP implementation
- > License to operate
- > Technical completion
- > Punch items
- > As-built documentation
- > Operator training
- > Operational philosophy / Work instructions
- > Maintenance of critical elements
- Spares / Operational equipment
- > Commissioning Plan
- > Handover
- > Procedures
- > Minimal required documentation
- > Reporting
- > Communication

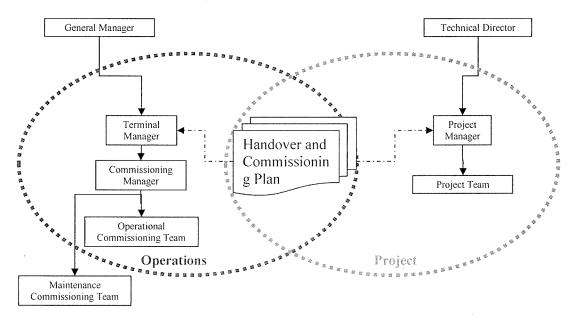
A full version of VTTI procedure VTTI-21.00.PR.001 can be made available on request.

#### Handover and Commissioning Plan

Handover and Commissioning will be carried out as per VTTI procedure VTTI-21.10.PR001.

This document lays out VTTI requirements for developing a proper Handover and Commissioning Plan. For developing this plan the terminal operating party will appoint a Commissioning Manager (which in turn will be responsible of setting up a commissioning team). Th commissioning plan shall be developed as soon as possible but no later than 1 month prior to start up. The plan must be approved by the Terminal Manager and the Project Director.

The commissioning plan describes in detail roles and responsibilities and procedures throughout the commissioning process. The followings subjects are covered:



- Commissioning team
- Roles and Responsibilities
- > Commissioning Organization
- > Preparation
- Progress overview
- > Training of terminal personnel
- Mechanical Completion (MC) and Handover
- > Work sequence from MC to Handover
- > Operations witnessed testing and MC activities
- > Punch list
- > Commissioning sequence per (sub)system
- > Handover schedule
- > As-built documentation
- Commissioning procedures for:

- o Buildings
- o CCR
- o Substation
- o Electrical & Instrumentation
- o Automation
- o Utilities
- o Sewer system
- o Potable water
- Service water
- o Nitrogen system
- o LPG
- Secondary systems
- o Fire Fighting system
- o Communication
- > Contractor assistance during commissioning 3
- > Start-up procedures
- Performance tests
- > Emission tests

A full version of VTTI procedure VTTI-21.10.PR.001 can be made available on request.

# Commissioning and Testing Standards and Procedures for the Turbine modification scope:

After mechanical completion has been achieved and all punch items related to safe operation of the plant cold commissioning can commence, once cold commissioning is successfully completed hot commissioning will take place.

Commissioning will be executed based on a commissioning planning which will be composed by the subcontractor in close alignment with Vitol Project and operations, WAPA and other stakeholders. Manufacturers and subcontractors commissioning procedures will be taken into account complemented by WAPA power plant procedures. All commissioning the results are recorded in a commissioning report.

#### During the cold commissioning the following activities take place:

- > From the instrument cables, instruments, and control cables all loops are tested from the faceplate/object till the instrument. A record is kept to have the overview and expedite progress.
- $\succ$  The power cables are Mega Ohm (M $\Omega$ ) checked and a bump test of the electrical motors will be done.
- A motor Uncoupled Running Test (MURT) will be done. Items such as , power consumption per phase, temperatures of the bearing housing, vibration will be monitored and recorded.
- > Pipelines will be flushed in order to remove debris from the construction/lay down time or removal of corrosion preventive measures.

- > Valves will be stroke tested.
- > Interface communications will be tested.

### During the Hot Commissioning the following activities take place:

- > All trips and interlocks are tested from the operating system (Some of them will be life tested in a later stage as well).
- > Software will be functionally tested.
- > Systems are tested.
- > Test operations starts
- > Performance testing
- > Emission Testing

APPENDIX B - SPARE PARTS INVENTORY PROGRAM for VIWAPA CEMs and COMs in St. Croix and St. Thomas

	THIS WEEK'S CHAI	NGES IN BLUE	Inventory Edits in 1	Yellow	Da	ate Updated:	7/24/201	5	А	ictual Qty On Hi	and	F	e-Order Determination					Purchases								Parts Rep	lacements		
System	Parts Number	Name	Part Description	Manufacturer/ Supplier	Storage Location (STX, STT, or STX/STT)	Replacement Frequency	Order Lead Time Days	Minimum Required Inventory Quantity	St. Croix Facility	St. Thomas Facility	Total	Re-Order Required? (Yes/No)	Determination Date Re-Order Required? Minimum Re Order Quantii (to > min.)	? Requisition No.	Date PO/Contract Required? (End Next Month)	Date PO/Contract Issued	Date PO/Contract Accepted by Vendor	PO/ No Parts Ord	on Ordered	Date Part Required? (before < minimum)	Date Parts Expected	No. Parts Received	Date Parts Received	No. Parts Dispatched Pa	Date ts Dispatched	Unit Serviced	Reason if	Replacement Requires Unit Outage? (Yes/No)	Compliance Maintained During Replacement? (Yes/No)
1 NOx	58020100	Motherboard	PCA, Motherboard, E Series, Gen 5-1	Tel. ML/QA Support	STX/STT	As Needed	63	1	1		2	NO		AC20479-1			06/29/15	RN006360.001 1			07/30/15								
NOx NOx	42680100 OR0000039	A-zero Valve O-Ring 39	Assy Valve O-ring, For Flow Control, OR 39	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed As Needed	63	1	3	3	5 7	NC NC		+															
4 NOx	940500	7 Mil Orifice	Orifice, 7 Mil, Ozone Flow/Exhaust Manifold	Tel. ML/QA Support	STX/STT	As Needed	63	3	0	6	6	NC NC	1	1															
5 NOx	940100	3- MilOrifice	Orifice, 3 Mil, By Pass Flow Manifold	Tel. ML/QA Support	STX/STT	As Needed	63	3	1		9																		
6 NOx 7 NOx	2730000 940400	Optical Filter  4 Mil Orifice	Optical Filter, 665nm Orifice, 4 Mil. Perma Pure Dryer	Tel. ML/QA Support Tel. ML/QA Support		As Needed As Needed	63	1	2		7	NC NC																	
8 NOx	1761800	Ozone Dryer	Assy, Flow Ctl, 90CC, Ozone Dryer	Tel. ML/QA Support	STX/STT	As Needed	63	2	1		4	NC NC																-	
9 NOx	40030800	Sensor Board	Flow/Pressure Sensor PCA	Tel. ML/QA Support	STX/STT	As Needed	63	3	3	1	4	NO	1											1	6/26/2015	U19	Failure	NO	YES
10 NOx 11 NOx	45230200 41800500	Relay Board Pre Amp Board	Relay Card W/Relays, Relay Board PCA, PMT Pre Amp, TML41	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed As Needed	63	2	1		4 3	NC VEC		AC20479-1			06/29/15	RN006360.0018 2	YES		07/30/15								
12 NOx	14080100	HVPS	Assy, High Voltage Power Supply	Tel. ML/QA Support	STX/STT	As Needed	63	2	1			NC NC		AC20475-1			00/29/13	2	1E3		07/30/13							+	
13 NOx	11930000	PMT	Photo Multiplier Tube	Tel. ML/QA Support	STX/STT	As Needed	63	2	1	3	4	NO																	
14 NOx	KIT000019	Cooler Assembly	Replacement Cooler Assy	Tel. ML/QA Support	STX/STT	As Needed	63	2	0	3	3	NO	01/14/15	NA AC20479-1	2/28/2015	2/27/2015	2/27/15 7/29/15	20148REV 2			4/10/15	2	4/7/15						
15 NOx	40420200	Ozone Generator	Assy, O3 Generator	Tel. ML/QA Support	STX/STT	As Needed	63	2	1	6	7	NO		AC20475-1			7/25/13	1			1/30/13								
16 NOx	18720100	Moly Converter	Moly Converter, w/O3 Destructor	Tel. ML/QA Support	STX/STT	3 years	63	3	0		5	NC.				1				$\perp = \perp$									
17 NOx 18 NOx	884-017300 98000242	NOx Pump NOx Pump Rebuild Kit	Pump Assy, External, 115V/60 HZ, Thomas KIT. Pump Service. Thomas Pump	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed Quarterly/As Needed	63	2	3		5	VFS NC	1	AC20479-1	1	1	06/29/15	RN006360.0018 2	YES	-	07/30/15			<b></b>					
19 NOx	13140000	Cooler Fan	Assy, Cooler Fan	Tel. ML/QA Support	STX/STT	As Needed	63	2	1	3	4	NC NC		ACLU473*1			50/25/25				/ 50/ 15							+	
20 NOx	10003894 A	Power Supply	5,+-15 VDC Power Supply	Tel. ML/QA Support		As Needed	63	2	1		4	NC				1				$\perp = \perp$									
21 NOx 22 NOx	10003546 F 49310100	Power Supply TCE Control Board	12 VDC Power Supply PCA. TCE Control. E Series	Tel. ML/QA Support Tel. ML/QA Support		As Needed As Needed	63 70	2	1 3		4	NO NO	<del>                                     </del>	+	1	1			_					<b></b>					
23 NOx	QT-TML-RBK	NOx Rebuild Kit	NOx Rebuild Kit	Tel. ML/QA Support		Quarterly/As Needed	63	3	0		3	YES	1	AC20479-1			06/29/15	RN006360.0018 2	YES		07/30/15								
24 CO	58021100	Motherboard	PCA, Motherboard, E Series, Gen 5-1	Tel. ML/QA Support	STX/STT	As Needed	63	1	1	4	5	NO								1 1						1		<del></del>	
25 CO	37860000	O-ring 58	OR S8 Viton O-Ring, for Particulate Filter	Tel. ML/QA Support	STX/STT	As Needed	63	3	2	8	10	NC NC																	
26 CO	9560301	Filter Wheel	Gas Filter Wheel	Tel. ML/QA Support Tel. ML/QA Support	STX/STT	As Needed	63 63	2	1		4 9																		
27 CO 28 CO	40030100 41350000	Sensor Board Relay Board	PCA Flow/Pressure Sensor Board PCA Relay Board M300E	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed As Needed	63	3	1			NC NC		1						+ +								+	
29 CO	PS0000025	Power Supply	Power Supply, +12V	Tel. ML/QA Support	STX/STT	As Needed	63	2	1	3	4	NO																	
30 CO	9550500	IR Source	IR Source,TML 30 S/N > 65	Tel. ML/QA Support	STX/STT	As Needed	63	3	1	7	8	NO																	
31 CO 32 CO	KIT000178 PS0000011	Sync Dmod Power Supply	Retrofit, Sync Dmod with Detector, TML30 Power Supply, +5/+-15V	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed As Needed	63	3	7	1 2	8 4	NO NO	1	-										1	1/29/2015	U18	Panaire	NO	YES
33 CO	PU0000022	Internal Pump Rebuild kit	Internal Pump, Sensor E Series, Rebuild kit PU022	Tel. ML/QA Support	STX/STT	As Needed	63	3	3		15	NC NC													1/13/1013	010	перина		
34 CO	PU1752-N05-5.05	Internal Motor	Internal Motor, 100-230/50-60Hz, 115/60Hz	Tel. ML/QA Support	STX/STT	As Needed	63	2	1	1	2	YES	01/14/15 1	NA AC20479-1	02/28/15	02/27/15	2/27/2015 06/29/15	20148REV 2 8N006360.0018 2	YES		4/10/15 07/30/15	2	4/7/2015						
35 CO 36 CO	52830100 OP0000030	Motor O2 Sensor	Assy Motor(MR7) E Series 02 Transducer	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed As Needed	63 63	2	2		4	NC NC																$=\pm$	
37 Opacity	528873	Purge Filter	Purge Filter	Tel. ML/QA Support	STX/STT	As Needed	63	3	0	5	5	NO				1										1		$\overline{}$	
38 Opacity	528312SP	Purge Switch	Purge Switch	Tel. ML/QA Support		As Needed	63	3	8			NC																	
39 Opacity 40 Opacity	980536 980142	Purge Hose Blower motor	1 Inch Diameter, Purge Hose, feet Blower Motor	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed As Needed	63	10	5		38 6	NO NO	1	-										1	5/21/2015	H21	Panaire	NO	YES
41 Opacity	1860-0400-01	Optical Amp Board	Optical Amp PCB	Tel. ML/QA Support	STX/STT	As Needed	63	2	2			NC NC													3/11/1013	112.2	перина		
42 Opacity	1860-0600-01	Display Board	Display Control Board	Tel. ML/QA Support		As Needed	63	2	0		5	NO																	
43 Opacity 44 Opacity	1860-0500-01SP 1860-0190-01	Mother Board Key Pad	560 Mother Board PCB Key Pad	Tel. ML/QA Support Tel. ML/QA Support	STX/STT	As Needed As Needed	70 63	3	0 2		3 4	NC NC		NA AC20479-1	02/28/15	02/27/15	02/27/15 06/29/15	20148REV 3 RN006360.0018 1			04/10/15	3	04/07/15					+	
45 Opacity	527418	1.25A, Fuse	1.25A, Fuse	Tel. ML/QA Support	STX/STT	As Needed	63	2	0	8	8	NC					00/20/20						,,						
46 Opacity	527438	2.0A, Fuse	2.0A, Fuse	Tel. ML/QA Support	STX/STT	As Needed	63	2	0		6	NO																	
47 Opacity 48 Opacity	1860-1100-02 545441	Power Supply Control Module	Power Supply PCB Flash Control Module, Communication Module	Tel. ML/QA Support Tel. ML/QA Support		As Needed As Needed	63 63	2	6		9	NC NC		AC20479-1			06/29/15	RN006360.0018 1				1	07/15/15						
49 Sample Plate	Q740-SCD DIL PT PCB	Pressure Board	Pressure Transducer Board	Tel. ML/QA Support	STX/STT	As Needed	42	2	1	2	3	NO		AC20479-1		I	06/29/15	RN006360.0018 1			09/30/15					1		$\overline{}$	
50 Sample Plate	Q740-AD-SSR6M12-DC-200D	Solid State Relay 2	Relay, Solid State, 100 VDC	Tel. ML/QA Support		As Needed	42	2	2	3	5	NO																	
Sample Plate Sample Plate	Q740-AD-SSR810-DC-28Z Q740-52X01061GM-24VDC	Solid State Relay 1 CVx	Relay, Solid State, 280 VDC Calibration Gas 2-Way Solenoid 24VDC, 100 PSI	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed As Needed	42 42	2	1 13	7	4 20	NC NC	-	+	1	1			_					<b></b>				$\longrightarrow$	
53 Sample Plate	Q740-56LJ8XGM-24VDC	GBV,CPV,GDV	Gas Direct 3-Way Solenoid 24 VDC, 50 PSI	Tel. ML/QA Support	STX/STT	As Needed	42	2	3	10	13	NO																	
54 Sample Plate	UA 1050	Sample Chiller	Mini Chiller, Sample Chiller	Tel. ML/QA Support		As Needed	42	2	4		8	NC.				1				$\perp = \perp$									
55 Sample Plate 56 Sample Plate	Q740-9464K17 Q740-LPH-125-0A-A-NO-A9011	012 Viton O-ring Flow Switch 50 CC	O-ring, -012 Viton, CG Solenoid Bank Flow Switch, 50CC/Min (Block Bleed)	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed As Needed	42 42	6	1	15	16 5	NC NC	<del>                                     </del>	+	1	1	-			-				<b></b>					
57 Sample Plate	Q740-8286-179A	CG Pressure Regulator	CG Pressure Regulator 3 PSID	Tel. ML/QA Support	STX/STT	As Needed	42	2	1	3	4	NC NC																	
Sample Plate	Q740-74C-123G081-113810	Sample/bypass Flow Meter	Flow Meter Cal Sample/Bypass, 2 SLPM	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed	42	2	12		15 12	NO NO				1				$\perp = \perp$									
59 Sample Plate 60 Sample Plate	Q740-74C-214G021-213810 Q130-005-K	Cal Gas Flow Meter Membrane Filter	Flow Meter Cal Gas, 9.2 SLPM Membrane Filter	Tel. ML/QA Support Tel. ML/QA Support		As Needed As Needed	42	2	9		12 21	NC NC		1	+	1				+ +	+							+	
51 Sample Plate	Q90P1008	Peristaltic Tube	Peristaltic Tube for PP1-1	Tel. ML/QA Support	STX/STT	As Needed	42	6	7	22	29	NC.	1																•
62 Sample Plate	Q01P1300	Peristaltic Pump	Peristaltic Pump	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed	42 42	2	3 7	4	7	NC NC		_														-	
63 Sample Plate 64 Sample Plate	29000204-52 Q740-J161-BP-PJ0	Probe Filter Single Head DC Pump(Sample Pump)	Sample Probe Filter Single Head brushless DC Pump	Tel. ML/QA Support Tel. ML/QA Support	STX/STT	As Needed As Needed	42	2	7	3	9	NC NC		1		<del> </del>													
65 Sample Plate	Q740-11711	Mini DC Pump Kit	Rebuild kit for Mini Single Brushless DC Pump	Tel. ML/QA Support	STX/STT	As Needed	42	3	0	3	3	YES	1	AC20479-2			06/29/15	RN006360.0018 2	YES		07/30/15								
66 Sample Plate	Q02F1500	WCOF	WCOF	Tel. ML/QA Support	STX/STT	As Needed	42	2	3		10	NC NC		1		1	-								7/7/2015	U15	Replaced	NO	YES
67 Sample Plate 68 Sample Plate	Q9F0016 Q03E1001	Water Slip Filter Water Slip Electrode	Water Slip Filter Water Slip Filter Electrode (LA 1S)	Tel. ML/QA Support	STX/STT	As Needed As Needed	42	2	3	6	11 9	NC NC		1		1				+ +	+							-+	
69 Sample Plate	Q740-70105523	Fan	Fan, 115VAC, 172X150mm, md, 230CFM	Tel. ML/QA Support	STX/STT	As Needed	42	2	1	3	4																		
70 Sample Plate 71 Sample Plate	Q740-70104889 Q03E2006D	Axial Fan Water Slip Electronics	Axial Fan 2.4W , 27.1 CFM Water Slip Electronics, Model LA 1.4, 24VDC	Tel. ML/QA Support Tel. ML/QA Support		As Needed As Needed	42 42	2	1		4 6	NO NO		+	1	<del>                                     </del>			+	-	-			<b></b>			-		
72 Sample Plate	Q740-WMZT1C10	10A Circuit Breaker	Breaker, Grouit 120VAC 10A, DIN	Tel. ML/QA Support	STX/STT	As Needed As Needed	42	2	1		4	NO																	
73 Sample Plate	Q740-70069759	24VDC Supply	Power Supply, 24VDC @ 20A	Tel. ML/QA Support	STX/STT	As Needed	42	2	7	3		NO				1													
74 Sample Plate 76 PLC	Q740-70160887 1769-IF 16C	15VDC Supply Allen & Bradley Analog Input Module	Power Supply, 15VDC @ 0.5A AB 1769-Analog Input 16 Ch	Tel. ML/QA Support Tel. ML/QA Support	STX/STT STX/STT	As Needed As Needed	42 42	2	0	3	4	YES	1	AC20479-2R	1	1	06/30/15	RN006360.0018 1	YES	-		1	07/15/15	<b></b>					
77 PLC	1769-OW16	Allen & Bradley Relay Module	Micro800, Expansion Module, 16 Ch Relay	Tel. ML/QA Support	STX/STT	As Needed	42	1	3	4	7	NC.		AC20479-2R			06/30/15	RN006360.0018 1	YES			1	07/15/15						
78 PLC	1769-IQ32	Allen & Bradley Digital Input Module	AB 1769-Digital Input 32 Ch	Tel. ML/QA Support		As Needed	42	1	1	1	2	NO		AC20479-2R			06/30/15	RN006360.0018 1	YES			1	07/15/15						
PLC Column Key	None	Spare Al & Br PLC Process Prog. Flash Card	1 GB SD Chip	Tel. ML/QA Support	STX/STT	As Needed	42	1	1	1	2	NO	1	1	1		l	1 1	1							l.			

Column Key

Signer Parts Inventorly Program. Ist of critical parts maintained in stock apporting timely repairs and preventive maintainance of CTMS and COMS. Parts are maintained at both plants to use at either plant. Reference to specific accisons of arth Consent Dicree in column headings. Spreadsheet will be updated each week and saved. Inventory will be updated as purchased parts are received and as inventory updated based physical count from weekly inventory check, purchase data, and use/dispatch data System. CTMS or COMS monitoring inventory parts are dispatch or color and inventory updated based physical count from weekly inventory check, purchase data, and use/dispatch data System. CTMS or COMS monitoring inventor requiring part have been considered from the parts of the color of

### Case: 3:14-cy-00086-cyg-RM Document #: 16-1 Filed: 09/24/15 Page 86 of 91

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Spare P	arts Inventory Progra	m for St. Thomas Water Injection Sy	<u>ystems</u>		Below Mir	imum	A	t Minimum	Ì		Date Updated	7/22/2015					PURCHA	SES							Parts	Replacements		
Unit	Part/ Stock#	Part Description (14 $\pm$ & 14.f(v))	Manufacture (14-e(ii))	Supplier(s) (14.e(iii))	STT Storage Location (14.e(i))	Replacement Frequency (14.e(iv))	Order Lead Time Days (14.e(iii))	Minimum Inventory Qty (14.c & e(iv))	Quantity On Hand (14.a)	e-Order Require (Yes/No) (14.f(ii))	Re-Order Require	Minimum Re-	Date PO/Contract Required? (Within 60 days of Determination < Minimum) (14.g)	Requisition#	Date PO/Contract Issued (14.f(ii))	Date PO/Contract Accepted by Vendor (14.f(ii))	PO/Contract No.	No. Parts on Order (14.f(ii))	No. of Parts Ordered Adequate?	Date Parts Expected? (Within 30 days of leadtime)	No. Parts Received (14.f(ii))	Date Parts Received (14.f(ii))	No. Parts Dispatched (14f(i))	Date Parts Dispatched (14.f(i))	Unit Serviced (14.f(ii))	Reason for Service (14.f(ii))	Replacement Requires Uni Outage? (Yes/No) (14.f(iii))	it Compliance Maintained During Replacement? (Yes/No) (13.f(iv))
1 15	MICRON	FILTER (PUMP SUCTION)	CULLIGAN	ACE	TRAILER	AS NEEDED	28	10	159	NO																		
2 15 3 15	MICRON ST# 281-015-70570	FILTER (PUMP DISCHARGE) RELIEF VALVE (600Ib)	CULLIGAN ANDERSON GREENWOOD	ACE ANDERSON GREENWOOD	TRAILER TRAILER / WAREHOUSE	AS NEEDED AS NEEDED	28 28	10	24 8	NO NO																		+
4 15	ST# 281-015-70571	RELIEF VALVE (700lb)	ANDERSON GREENWOOD	ANDERSON GREENWOOD	TRAILER / WAREHOUSE	AS NEEDED	28	2	7	NO	)																	
5 15 6 15	836-C63A VARIOUS PARTS	PRESSURE SWITCH (CPD)  INJECTION PUMP (REBUILD KIT w/multiple parts)*	ALLEN BRADLEY WHITLEY	EPS EPS	TRAILER TRAILER	AS NEEDED AS NEEDED	49 84	1	1	YES	2/20/15	1	04/21/15	30398	3/16/2015		65514	2	YES									+
7 15	650010000701003	LUBRICATOR MODEL P55U (INJECTION AUXILIARY)	PREMIER GOULDS	EPS/CONTROL ASSOCIATES	TRAILER TRAILER	AS NEEDED	184 56	1	0	YES	2/20/15	2	04/21/15	31012#	6/29/2015		66042	2	YES	09/22/15								1
9 15	5HP/3/60/230-460V	MOTOR, SUPPLY FRAME 184JM (13 STORAGE)	BALDOR	EPS EPS	TRAILER	AS NEEDED AS NEEDED	56	1	2	NO NO	)																	+ -
10 15	VARIOUS SPARES MPVN40 2/5-SR532M-32TS	SUPPLY PUMP REBUILD KIT (w/multiple parts)	GOULDS	EPS Eps	TRAILER TRAILER	AS NEEDED AS NEEDED	56 184	1 1	2	NO	5/18/15			30670			65763	1	YES		1	07/15/15						
12 18		INJECTION PUMP REBUILD KIT (w/multiple parts)**	GOULDS	EPS EPS	TRAILER	AS NEEDED	112	1	1	YES	5/18/15	1	07/17/15	30395	5/22/2015		65824	1	YES	10/07/15								
13 18 14 18	A00368C-4 50HP 3/60/230-460V	COUPLING FOR MPV40 FRAME TSD** INJECTION MOTOR FRAME 326TSD**	REXNORD BALDOR	EPS/CORTES/HUDSON	TRAILER TRAILER	AS NEEDED AS NEEDED	56 184	2	3	NO NO													1	5/12/2015	18	broken coupling	no	yes
15 23	FK402C640VVA2TZA	2/2 WAY 316/300# (STOP VALVE)	COAX	COAX	TRAILER	AS NEEDED	112	1	2	NO	)							1	YES		1	05/11/15						
16 23 17 23		SWITCH, DIFFERENTIAL (PUMP SUCTION) SWITCH, GAUGE (PUMP DISCHARGE)	CUSTOM CONTROL SENSORS CUSTOM CONTROL SENSORS	CUSTOM CONTROL SENSORS CUSTOM CONTROL SENSORS	TRAILER TRAILER	AS NEEDED AS NEEDED	98 98	1	2	NO NO																		+
18 23		SWITCH, DIFFERENTIAL (FILTER)	CUSTOM CONTROL SENSORS	CUSTOM CONTROL SENSORS	TRAILER	AS NEEDED	98	1	2	NO	)																	
19 23 20 23	PH720-01-CGVSSN MODEL 23	FILTER CARTRIDGE STRAINER TYPE 304SS	HILCO MUELLER	HILLARD EPS	TRAILER TRAILER	AS NEEDED AS NEEDED	49 49	6	13	NO NO																		+
21 23	P2-EGS-60T	INJECTION PUMP *	SUNFLO	SUNFLO/PHOENIX/ATLANTIC	AER PUMP SHOP	AS NEEDED	56	2		YES	6/15/15	2	08/14/15	30672	6/4/2015		65880	3	YES	##			1	06/15/05	23	repaired pump failed under warrenty	no	yes
22 23	37kW/3565rpm	INJECTION MOTOR	LEROY SOMER/BALDOR	CORTES	AER PUMP SHOP	AS NEEDED	84	2	2	YES	5/18/15	1	07/17/15	30672	6/4/2015		65880	2	YES	##								
23 23	EZ/CL300RF/667/30/DVC6200 DVC6200	CONTROL VALVE (REBUILD KIT) FIELDvue SMART POSITIONER (VALVE AUXILIARY)	FISHER FISHER	CONTROLS ASSOCIATES CONTROLS ASSOCIATES	TRAILER TRAILER	AS NEEDED AS NEEDED	84 84	1	2	NO NO																		
25 23	67CF	AIR REGULATOR (VALVE AUXILLARY)	FISHER	CONTROLS ASSOCIATES	TRAILER	AS NEEDED	70	1	2	NO	)																	
26 23 27 15/18		LIMIT SWITCH (VALVE AUXILLARY)  CONTROL VALVE (PRESSURE AND FLOW)	FISHER FISHER	CONTROLS ASSOCIATES  Controls Associates	TRAILER TRAILER	AS NEEDED 4-6 years	70 70	1	2	NO NO								1										+
28 15/18		CONTROL VALVE: AIR TO OPEN - FAIL CLOSE	VALTEK	PHARMACEUTICAL PROCESSES SYSTEMS	TRAILER	AS NEEDED	56	1	2	NO																		
29 15/18 30 15/18	MK1/92295.1-1/520SERIES VARIOUS PARTS	CONTROL VALVE: AIR TO CLOSE - FAIL OPEN CONTROL VALVE (REPAIR KIT)	VALTEK VALTEK	PHARMACEUTICAL PROCESSES SYSTEMS PHARMACEUTICAL PROCESSES SYSTEMS	TRAILER TRAILER	AS NEEDED AS NEEDED	84 49	2	4	NO NO																		+
31 15/18	NT3000	VALTEK BETA POSITIONER (VALVE AUXILIARY)	VALTEK DELAVAN	PHARMACEUTICAL PROCESSES SYSTEMS	TRAILER TRAILER	AS NEEDED	49	4	6	NO																		
32 15/18 33 15/18	T1200-30A7 MODEL 1719	INJECTION NOZZLE CHECK VALVE (FUEL)	KEPNER	JOHNSTONE SUPPLIES KEPNER	AWAITING PARTS	AS NEEDED AS NEEDED	56 49	80 10	200	NO NO																		+
34 15/18 35 15/18		CHECK VALVE (REBUILD KIT) TRANSMITTER, PLIMP DISCHARGE PRESSURE	KEPNER FMFRSON	KEPNER ROSEMOUNT	AWAITING PARTS TRAILER	AS NEEDED AS NEEDED	49 56		20 3	NO NO																		
36 15/18/23	9834864	Gauge, 0-200 psig	WIKA	EPS	TRAILER	AS NEEDED	49	2	9	NO	)																	
37 15/18/23 38 15/18/23		Gauge, 0-600 psig Gauge, 0-1000 psig	WIKA WIKA	EPS EPS	TRAILER TRAILER	AS NEEDED AS NEEDED	49 49		4	NO NO																		
39 15/18/23	9834082	Gauge, 0-1500 psig	WIKA	EPS	TRAILER	AS NEEDED	49	2	4	NO	)																	
40 15/18/23 41 15/18/23		Gauge, 0-2000 psig  ROTAMASS FLOW DETECTOR**	YOKOGAWA	MICROTECH SYSTEMS & CONTROLS	TRAILER TRAILER	AS NEEDED AS NEEDED	49 70	1	2	NO NO																		+
42 15/18/23	RCCF31-AH2A/BG/AP	ROTAMASS FLOW CONVERTER**	YOKOGAWA	MICROTECH SYSTEMS & CONTROLS	TRAILER	AS NEEDED	70	1	2	NO.																		
43 15/18/23 44 15/18/23/25	MODEL 3196 Sti SIZE 1.5x3-8	SUPPLY PUMP (22 STORAGE)	YOKOGAWA GOULDS	MICROTECH SYSTEMS & CONTROLS EPS	TRAILER TRAILER	AS NEEDED AS NEEDED	70 70	1	1	YES	6/17/15	1	08/16/15	31078	6/17/2015			2	YES	09/25/15								+
45 15/18/23/25 46 15/18/23/25	VARIOUS PARTS WES4 DURAFLEX	SUPPLY PUMP REBUILD KIT (22 STORAGE) COUPLING, SUPPLY PUMP (22 STORAGE)	GOULDS TB WOODS	EPS EPS	TRAILER TRAILER	AS NEEDED AS NEEDED	70 70	2	2	YES	5/18/15	1	07/17/15	30803	6/19/2015			1	YES	08/26/15								
47 15/18/23/25	15HP/3/60/230-460V	MOTOR, SUPPLY FRAME 254T (22 STORAGE)	BALDOR	EPS	TRAILER	AS NEEDED	70	2	4	NO.		-	07/17/13	30803	0/13/2013			1	11.3	00/20/13								
48 15/18/23/25	VARIOUS PARTS	CONTROL VALVE RE-BUILD W/ AUX (22 STORAGE LEVEL)	FISHER	CONTROLS ASSOCIATES	TRAILER	AS NEEDED	70	1	2	NO																		
49 15/18/23/25	3051CG3A02A1AB1DFE5H2	TRANSMITTER, STORAGE TANK LEVEL	EMERSON	ROSEMOUNT	TRAILER	AS NEEDED	56	1	2	NO	)																	
																												+
**Spare for th	ection pump in place on pump rack. s component also maintained in St. Cr																											
#Restarted pro ###Delay in sc	curement process with new vendor as neduling shipment of used pumps and	s a result of issues with initial vendor. motor for rebuild; includes faile pump under warranty.																										-
Column Key																												
	ventory Program - list of critical pa f - date inventory and purchased of	arts maintained in-stock supporting timely repairs and pre- quantities were updated	ventive maintenance of NOx Water Inj	ection Systems for Gas Combustion Turbines. Refer	rence to specific sections of draft C	onsent Decree in col	umn headings.																					+
	stion turbine unit(s) requiring part																											
	umber - WAPA part identification i tion - identity of part based on nan	ne, size, material of construction, or other specification																										
	r- part manufacturer irce for parts purchased or to be p	urchaead																										
Storage Loca	ion - physical location of parts																											
Replacement	Frequency - Expected frequency of	of repair or replacement of the individual components; "As rdering and delivery of parts, i.e., from initiation of procure		of failure																								
Minimum In	entory Qty - minimum number of	units required to be in stock to ensure parts are always on		re-ordering is initiated																								
Quantity On- Re-Order Red	Hand - Verification of inventory of uired? - Spreadsheet determination	parts in storage on as to whether re-ordering is required: "YES" if TOTAL q	uantity on-hand is less than the Minim	um Inventory Quantity																								-
Determination	Date Re-Order Required - date w	then deficiency determined and re-order required; default ermination as to the number of parts that must be ordered	t date of inventory update																									
Date PO/Con	tract Required - Based on draft Con	nsent Decree allows for purchase to be completed within 6	60 days of determination inventory bel	low minimum																								
	umber - WAPA Number for Requis	ition requesting issuance of Purchase Order /contract issued					-	-	-		-							$\vdash$										+
Date PO/Con	ract Accepted by Vendor - date ve	ndor receives contract, funding is in place, and proceeds v	with filling order, i.e., no contractual iss	sues																								
	Number - identification number as Order - Number of replacement pa	risigned to Purchase Order orts on order listed separately for each PO date																										+
No. of Parts 0	rdered Adequate? - Spreadsheet	determination as to whether a sufficient number of parts v	were ordered to eliminate the inventor	ry deficiency; basis for issuance of penalties. "YES" m	neans sufficient parts were ordere	I																						
	pected - date when parts expected eived - number of parts received b	d to be delivered by corresponding purchase order date																										+
Date Parts Re	ceived - date parts received	termination whether parts were as received within 30 day	vs of order lead time from date inventor	ory determined to be below required minimum												-				-			-					+
No. Parts Dis	natched - number of parts withdra	wn from inventory for repairs or maintenance	,	,																								
Unit Serviced	- Turbine unit number serviced, i.e	rom inventory for use in repairs or maintenance e., replacement with dispatched parts																										+
		d parts replacement; e.g., parts failure, maintenance																										

### Case: 3:14-cy-00086-CVG-RM Document #: 16-1 Filed: 09/24/15 Page 87 of 91 Appendix C- St. Thomas Water Injection Spare Parts Inventory

### Below Minimum Parts On Order June 18, 2015

SPIP No.	System	Parts Number	Part Description	Manufacturer	Supplier(s)	No. Parts Ordered	Date Parts Expected? (Month-Year)
			St. Thomas Water Injection Spare Parts Inventory < Minimu	ım Parts on Order a	s of June 23, 2015		
7	15	650010000701003	LUBRICATOR MODEL P55U (INJECTION AUXILIARY)	PREMIER	EPS/CONTROL ASSOCIATES	2	September-15

#### APPENDIX D

Items required to be included in the NOx Control Water Injection System Preventative Operation and Maintenance Plan ("O&M Plan") shall include, but is not be limited to, the following:

- 1. Facility Description and Use of Water Injection Systems;
- 2. Standard Operating Procedures;
- 3. Water Injection System Overview Including Descriptions of the Various Units' NOx Water Injection System Operations;
- 4. Long-Term Shutdown Check before Injection System Operation;
- 5. Pre-operation System Checks;
- 6. Operating Procedures during Startup;
- 7. Procedures during System Operation;
- 8. Procedures when abnormalities are Detected/Alarms are Triggered;
- 9. Notification Protocol for Observed Deviations; and
- 10. Maintenance Work Order Procedures including Process, Responsibilities, Work Flow, Preventative Maintenance Work Orders, Preventative Maintenance Work Orders Procedures, Periodic Maintenance, and Troubleshooting

Case: 3:14-cv-00086-CVG-RM Document #: 16-1 Filed: 09/24/15 Page 89 of 91

### APPENDIX E

# VIWAPA RANDOLPH HARLEY GENERATING FACILITY ST. THOMAS WATER INJECTION DATA SHEET\*

	Unit Op.			,	Water Injection System Downtime	
Unit No.	Hrs. per Month	Downtime Hours	% Downtime	Downtime Cause	Corrective Action	Correction Schedule

<sup>\*</sup>These data sheets are to be submitted to EPA as part of the quarterly reports required by the Consent Decree

### APPENDIX F

### LIST OF WATER INJECTION SYSTEM COMPONENTS TO EVALUATE DURING AUDITS

Units 15, 18, and 23 - On-Turbine Base Components
☐ Water injection manifold
☐ Ten combustors, each with water injection nozzles
Units 15, 18 and 23 - Off-Base Components on Skid
☐ Redundant pumps and drive motors
☐ Inlet water strainer and pressure switch (Unit 23 only)
☐ Water filters
☐ Differential pressure gauge
☐ Flowmeters
☐ Flow control valve (Unit 15 and Unit 18)
☐ Flow pressure regulating valve (Unit 23)
☐ Fuel nozzle assemblies
☐ Check valves, hand operated valves, temperature gauges and pressure gauges.
The following calibrations / checks must be performed during audit
Calibration Electronic Circuits
☐ Calibration of Control Valve Circuits
☐ Calibration of Flowmeter Circuits
☐ Check Flowmeter Accuracy
☐ Check Control Valve for Leakage
☐ Check Stop Valve Operation
☐ Check Stop Valve for Leakage
☐ Check Forwarding Pump Oil Level
☐ Check that Water Flow Is per Control Specifications
☐ Check Accumulator Precharge
☐ Check Water Spray Nozzles for Plugging & Spray Pattern

### **APPENDIX G**

# LIST OF CONTINUOUS MONITORING SYSTEM COMPONENTS TO EVALUATE DURING AUDIT

- 1.  $NO_X$ ,  $O_2$  and  $CO_2$  analyzers
- 2. External NOx Analyzer vacuum pump
- 3. High voltage power supply for heated sample line
- 4. DC power supply
- 5. Water Slip Filters
- 6. Sample Lines
- 7. Sample Probe Straw
- 8. Sample Probe Gaskets and Filters
- 9. Programmable Logic Controllers (PLC)
- 10. Flow Monitors
- 11. Dilution Air System
- 12. Calibration Gas Systems
- 13. Indicator Lights and Alarms
- 14. Sample Chiller
- 15. AC System
- 16. DAHS Server
- 17. Air cleaner assembly
- 18. Peristaltic pump
- 19. COMS Blower filter