U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

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Environmental Review for Activity/Project that is Categorically Excluded Subject to Section 58.5

Pursuant to 24 CFR 58.35(a)

Project Information

Project Name: V.I. Water and Power Authority, LPG Infrastructure Acquisition

Responsible Entity: Virgin Islands Housing Finance Authority

Grant Recipient (if different than Responsible Entity): Click or tap here to enter text.

State/Local Identifier: United States Virgin Islands

Preparer: Amy Claire Dempsey, M.A., Bioimpact, Inc.

Certifying Officer Name and Title: Ms. Dayna Clendinen, Chief Disaster Recovery Officer

Consultant (if applicable): Amy Claire Dempsey, M.A., Bioimpact, Inc.

Direct Comments to: Virgin Islands Housing Finance Authority, Attention: Dayna Clendinen

3202 Demarara Plaza, Suite 200, St. Thomas, VI 00802

Project Location: The LPG infrastructure is within the Richmond Power Plant located on Parcel Nos. 6 and 8 Penitentiary Land and Parcel 6A Reclaimed Land, in Christiansted, St. Croix **(** 17˚45.106'N Latitude and 64˚42.912W Longitude).

Description of the Proposed Project [24 CFR 50.12 & 58.32; 40 CFR 1508.25]**:**

The acquisition of the existing Liquid Propane Gas (LPG) infrastructure at the Richmond Power Plant in St. Christiansted (Figure 1)**.** CDBG-DR MIT funds are proposed for the acquisition of the LPG infrastructure including the fuel loading arms, LPG pipelines from the fuel dock to the LPG storage tanks, LPG pipelines from the storage tanks to the vaporizer, the fire suppression system, and the control system. The LPG infrastructure is in place and in operation. The acquisition of the LPG infrastructure is needed for the continued operation of the Richmond Power Plant. Currently, the LPG infrastructure is owned by Vitol LLC. The Virgin Islands Water and Power Authority (VIWAPA) owns and operates the Richmond Power Plant. VIWAPA owns the land and adjacent fuel docks where Vitol vessels delivered liquid propane. The sale, as negotiated through court arbitration, includes the transfer of title, conveyance of all equipment, property, balance of plant, inventory, spares, documentation, etc. from Vitol to VIWAPA. VIWAPA will assume the existing operations and maintenance contract for the transfer of fuel currently in place between Vitol and

Saintnals, LLC, the current third-party operations and maintenance provider, effective upon the sale of the LPG Infrastructure to VIWAPA. No alteration or changes are proposed to the facility or its operation.

Level of Environmental Review Determination:
Categorically Excluded per 24 CFR 58.35(a)(1), and subject to laws and authorities at §58.5: Acquisition of public facilities and or improvements.

Funding Information

Grant Number	HUD Program	Funding Amount
P-17-VI-78-HIM1	CDBG-MIT	$145,000.000.00

Estimated Total HUD Funded Amount: $145,000,000.00 for the acquisition of LPG infrastructure on both St. Croix and St. Thomas

This project anticipates the use of funds or assistance from another Federal agency in addition to HUD in the form of (if applicable)**:** None

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)]**:** $145,000,000.00

Compliance with 24 CFR 50.4, 58.5, and 58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR §58.5 and §58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.6		
Airport Hazards 24 CFR Part 51 Subpart D	Yes ☐ No ☒	The facility is located approximately 6 miles from Henry E. Rohlsen Airport. The LPG infrastructure being acquired is not in the flight path of planes taking off or landing (Figure 2). The project is in compliance with 24 CFR Part 51 Subpart D.

Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	The facility is not within a Coastal Barrier as designated by the Coastal Barrier Resource Act (Figure 3). The project is in compliance with the Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501].
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☐ No ☒	The LPG infrastructure being acquired is located in the Federal Flood Risk Management Standard (FFRMS) 100- year floodplain (Figure 4). The LPG infrastructure to be acquired is on 0.15 acres of the 3.5-acre FFRMs floodplain within the parcel on which the infrastructure is located. The infrastructure within the 100-year floodplain is not insurable. The project is in compliance with Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a].
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR 50.4 & 58.5		
Clean Air Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93	Yes ☐ No ☒	The acquisition of the LPG infrastructure will result in no changes in air quality. VIWAPA has air permits for the facility (VI0000007800100001). The NEPAssist website identifies no areas on the EPA EJ screening indexes, nor areas of non-attainment within a 1-mile radius of the LPG infrastructure (Figure 5). The acquisition will support the continued use of propane for power generation which has lower CO emissions than the use of diesel for power generation. The proposed acquisition is in compliance with Clean Air Act, as amended, particularly section 176(c) & (d); 40 CFR Parts 6, 51, 93.
Coastal Zone Management Coastal Zone Management Act, sections 307(c) & (d)	Yes ☐ No ☒	The LPG infrastructure is within the first tier of Coastal Zone Managements' jurisdiction (Figure 6). Developments within the first Tier are required to obtain Coastal Consistency under VI Code Title 12, Section 910. For development in the first tier Coastal Zone Management Permits from the DPNR's Division of Coastal Zone

		Management are issued to demonstrate Coastal Consistency. The Richmond Facility is permitted under CZX-33-02W and CZX-2-14L. The action and the facility are in compliance with Coastal Zone Management Act, sections 307(c) & (d).
Contamination and Toxic Substances 24 CFR Part 50.3(i) & 58.5(i)(2)	Yes ☐ No ☒	The project is the acquisition of existing LPG infrastructure which is currently in operation. HUD programs require that properties receiving funding be free of hazardous materials, contamination, toxic chemicals and gases, and radioactive substances where a hazard could affect the health and safety of occupants or conflict with the intended utilization of the property. The NEPAssist mapping tool was utilized to identify properties of concern within a 1-mile radius (Figure 7). The NEPAssist tool identified numerous properties within a 1 mile radius with storm water construction permits, TPDES (Territorial Discharge Pollutant Elimination Systems) permits (these are listed as NPDES (National Discharge Pollutant Elimination Systems), in the report, most of the TPDES holders, Gold Coast, Charles Harwood Memorial Complex, Innovative Assets Group, LLC, Orange Grove Subdivision Project, WAPA's 24" Waterline Project, Contentment Mini Mart, Herman Beeston Holdings, Herman Beeston Holdings Project, Christiansted By Pass, Ralph De Chabert Place Demolition Project and Salt River National Park have no violations, and therefore no impact on the LPG infrastructure site. There are numerous sites which have RCRA permits located within 1-mile of the Richmond facility (or are listed as being within 1-mile of the facility because their business offices are located downtown) Federal Defender and Office of Federal Defender, Tropical Cleaners, Office of Rohn and Carpenter, Marcos, the VI Department of Health, Seabourne Airlines, and the Office of the Public Defender, all have no violations, and therefore no impact on the

		LPG infrastructure site. Tropical Cleaner and King Cross Street have Air permits and no violations. There are several Brownfield sites within 1 mile of the LPG infrastructure, the Moravian Church, which has had a Phase I Environmental Assessment done, an abandoned property in downtown Christiansted which is ready for re-use, an old Devcon property which has engineered controls, Charles Diamond Concrete has had a Phase I done, and the Property and Procurement Garage which has Engineered Controls, none of these sites will impact the LPG infrastructure site. Juan Luis Hospital and Medical Center has RCRA violation related to their generators and as small waste generators for compliance issues, but these will not affect the LPG infrastructure. Just Right Trucking has TPDES violations was administrative. There are a number of sites listed as Superfund sites within the 1-mile radius. These include, Abdullahs' Furniture, Jeff and Terrys Auto Repair, Metro Motors, Crucian Cleaners, St. Croix Radiator and Clive's Auto Body, and the Department of Agriculture. Per the NEPAssist report these sites do not have contaminants and do not qualify for the National Priority Listing (NPL). These sites will have no effect on the LPG infrastructure site. VIWAPA plant in which the LPG infrastructure is located has significant Clean Water Act (CWA) violations (Figure 8). All listed violations are from exceedance to permit limits during compliance monitoring of discharges of wastewater, and stormwater runoff. The EPA has granted primacy to the Virgin Islands over the Clean Water Act, 401 Program. All violations are being managed under the DPNR's Division of Environmental Protection (DEP). The violations will not affect the health and safety of employees operating the plant and will not conflict with the intended utilization of the property. The acquisition will not

		result in any change in the facility or its operation. VIWAPA was issued a consent decree by the US Justice Department on behalf of the EPA in 2013 for violations under the Clean Air Act involving the operation of 4 fuel oil-fired gas turbines which were discharging air pollution including nitrogen oxides and carbon monoxide in excess of permit requirements. VIWAPA has been released from the consent decree after a judge determined that the utility is no longer violating the Clean Air Act. The action is compliance with 24 CFR Part 50.3(i) & 58.5(i)(2).
Endangered Species Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402	Yes ☐ No ☒	The LPG infrastructure is within the fully developed Richmond Power Plant. There are no ESA listed species within the power plant generating facility. There are ESA listed species in the offshore waters surrounding the facility, these include endangered coral species, fish and invertebrate species under the jurisdiction of National Marine Fisheries Service (NMFS), Protected Resource Division (*Orbicella faveolata, O. franksi, O. annularis, Dendrogyra cylindrus, Acropora palmata, A. cervicornis*, and *Mycetophyllia ferox*), Nassau grouper (*Epinephelus striatus*), Giant manta ray (*Mobula birostris*), and Queen Conch (*Aiger gigas*), and bottled nosed dolphin (*Tursiops truncates*). The list of endangered species in the Southeast from NOAA Fisheries Species Directory is found as Figure 9 and the map of Critical Habitat from NOAA's Critical Habitat Mapper is found as Figure 10. The Fish and Wildlife Service's iPaC identified the following species under their jurisdiction,:1 marine mammal (West Indian manatee (*Trichechus manatus*), 1 bird (Roseate Tern (*Sterna dougallii dougallii*) species and 3 sea turtle species (Leatherback sea turtles (*Dermochelys coriacea*), Hawksbill sea turtles (*Eretmochelys imbricata*), and Green sea turtles (*Chelonia*

		mydas) which occur in the area. The iPaC report states there is no Critical Habitat in the areas (Figure 10). The project is the acquisition of existing LPG infrastructure with no changes in the facilities or the operations and therefore the acquisition has no effect on these species. The action is in compliance with Endangered Species Act of 1973, particularly section 7; 50 CFR Part 402.
Explosive and Flammable Hazards 24 CFR Part 51 Subpart C	Yes ☐ No ☒	Liquid propane is not flammable, but if it escapes from its containment, it is extremely cold and can become a hazard to skin and inhalation. Once it warms back into a gaseous state propane becomes explosive and flammable. There are LPG storage tanks on the property as well as diesel storage. The LPG tanks are constructed to meet all federal and territorial requirements. The tanks are buried within two mounds containing four tanks each and have approximately 1m of compacted soil cover over the tanks. Upon completion of the fill and compaction of the mound, the top and sloped sides were to be made waterproof by application of a waterproof membrane and then covered by stone pitching, and gravel. The tanks were fabricated/hydrotested in accordance with American Society of Mechanical Engineers (ASME) Design & Fabrication of Pressure Vessels (VIII Div 2). There are eight tanks buried within the mounds St. Croix, with a total capacity of 65,500 barrels (each tank containing 257,906.25US gallons) storing an effective propane supply of 19.2 days. The Richmond plant also has 6 fuel oil (diesel) and 6 waste oil tanks. All oil tanks have secondary containment. VIWAPA has a Terminal Facility License and a Facility Response Plan (FRP) which is approved by the Division of Environmental Protection. The plan requires frequent inspection and monitoring of all storage tanks, piping, and containments. The FRP requires monitoring of all transfer operations. The FRP is

		reviewed and certified every 5 years and insures the maintenance of all fuel containment. The acquisition will not result in any change in the facility or its operation. It is the acquisition of an existing site, and the proposed acquisition of the LPG infrastructure will not increase residential density or the number of people that are exposed to hazardous operation. The action is in compliance with 24 CFR Part 51 Subpart C.
Farmlands Protection Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658	Yes ☐ No ☒	The existing facility and LPG infrastructure is not located within Prime Farmland (Figure 12). The project is in compliance with Farmland Protection Policy Act of 1981, particularly sections 1504(b) and 1541; 7 CFR Part 658.
Floodplain Management Executive Order 11988, particularly section 2(a); 24 CFR Part 55	Yes ☒ No ☐	The LPG infrastructure being acquired is located in the Federal Flood Risk Management Standard (FFRMS) 100- year floodplain and VIHFA identified and evaluated practicable alternatives to the acquisition of the LPG infrastructure within the FFRMS floodplain and the potential impacts on the FFRMS floodplain as required by Executive Order 11988, as amended by Executive Order 13690, in accordance with HUD regulations at 24 CFR 55.20 in Subpart C Procedures for Making Determinations on Floodplain Management and Protection of Wetlands. A map showing the FFRMS Floodplain on the Parcel with the LPG Infrastructure being acquired (elevation 20ft with the infrastructure being acquired is in Figure 13. The 8-Step process for the Virgin Islands Water and Power Authority – Propane Infrastructure Acquisition Project, St. Croix, U.S. Virgin Islands, USA, was completed, and an Early Notice was issued on May 23, 2024 (Figure 14). The 8-step process determined that there was no practical alternative and it was concluded that: VIHFA as the representative of HUD will fund VIWAPA's acquisition of the LPG

		infrastructure so that VIWAPA can continue to supply more economic reliable power to the people of St. Croix. By acquiring the LPG infrastructure, the Authority will be more resilient and better prepared to withstand future disasters. The action proposed is the acquisition of the LPG infrastructure with no alterations therefore there will be no impact to the FFRMS floodplain. The action is in compliance with Executive Order 11988, particularly section 2(a); 24 CFR Part 55
Historic Preservation National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800	Yes No ☐ ☒	The LPG infrastructure is located within an existing power facility which is completely developed and has no undisturbed areas. The VI State Historic Preservation Office has determined that the Section 106 Compliance Process is not required (Figure 13). The plant is not listed or eligible for listing on the National Register of Historic Places. There are listed properties nearby the plant but they the acquisition of the existing LPG infrastructure will have no effect. The action is in compliance with the National Historic Preservation Act of 1966, particularly sections 106 and 110; 36 CFR Part 800.
Noise Abatement and Control Noise Control Act of 1972, as amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B	Yes No ☐ ☒	The action is the acquisition of the existing LPG infrastructure and there will be no changes to the structure and operations. There will be no new or change to existing noise during the transfer of fuel from the vessel to the LPG infrastructure. The property is in compliance the Noise Control Act of 1972 amended by the Quiet Communities Act of 1978; 24 CFR Part 51 Subpart B.
Sole Source Aquifers Safe Drinking Water Act of 1974, as amended, particularly section 1424(e); 40 CFR Part 149	Yes No ☐ ☒	There are no sole source aquifers in the area of the power facility (Figure 16), The acquisition of the LPG infrastructure will have no impact on sole source aquifers. The project is in compliance with the Safe Drinking Water Act of 1974, as amended,

		particularly section 1424(e); 40 CFR Part 149.
Wetlands Protection Executive Order 11990, particularly sections 2 and 5	Yes ☐ No ☐	There are no wetlands within the Richmond Power Plant site and the action is in compliance with Executive Order 11990, particularly sections 2 and 5 (Figure 17).
Wild and Scenic Rivers Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c)	Yes ☐ No ☒	There are no Wild and Scenic Rivers in the U.S. Virgin Islands therefore the action is in compliance with the Wild and Scenic Rivers Act of 1968, particularly section 7(b) and (c) (Figure 18).
ENVIRONMENTAL JUSTICE		
Environmental Justice Executive Order 12898	Yes ☐ No ☒	The median household income in the Territory is 25% lower than the national median ($37,254 compared to $51,914), and 22% of the population is below the poverty level (compared to 14.4% nationally). Of the three principal islands, St. Croix faces the more severe economic vulnerability with 26% of residents living below the poverty line, with an island-wide median household income of $36,042. 46% of households in St. Croix are LMI households, The proposed acquisition of the LPG infrastructure is intended to benefit the entire island of St. Croix, but the use of CDBG-MIT funds must be spent on projects that primarily benefit LMI communities. The proposed acquisition would directly benefit all of the island's population by maintaining access to fuel storage capacity which allows for 20 days of fuel storage on St. Croix. By acquiring the LPG infrastructure, the facility will be able to use its newest, most efficient and reliable power generation. LPG is currently 17% less expensive that diesel and this cost savings is passed directly on to customers. Without access to the LPG infrastructure the facility would be forced to run on older, less efficient and less reliable units that can operate on diesel. The acquisition and continued operation of the infrastructure does not result in disproportionate impacts to EJ communities. The supply of LPG

		enables the operation of more fuel-efficient generators which prevents a major reduction in generation capacity. The 2020 Census map (Figure 19) identifies the area around the plant as one of Low and Moderate Income. The project is in compliance with Executive Order 12898.

Field Inspection (Date and completed by)**:**
A field inspection was made by Jose Sanchez of Bioimpact, Inc. on June 5, 2024.

Summary of Findings and Conclusions:

Mr. Sanchez inspected the LPG infrastructure that is being acquired and noted no evidence of release or other issues on the site. The site was clean and maintained.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure	Condition
Executive Order 11988, particularly section 2(a); 24 CFR Part 55 and	Click or tap here to enter text.	Click or tap here to enter text.

Determination:

☐ This categorically excluded activity/project converts to Exempt, per 58.34(a)(12) because there are no circumstances which require compliance with any of the federal laws and authorities cited at §58.5. **Funds may be committed and drawn down after certification of this part** for this (now) EXEMPT project; OR

☒ This categorically excluded activity/project cannot convert to Exempt because there are circumstances which require compliance with one or more federal laws and authorities cited at §58.5. Complete consultation/mitigation protocol requirements, **publish NOI/RROF and obtain "Authority to Use Grant Funds"** (HUD 7015.16) per Section 58.70 and 58.71 before committing or drawing down any funds; OR

☐ This project is now subject to a full Environmental Assessment according to Part 58 Subpart E due to extraordinary circumstances (Section 58.35(c)).

Preparer Signature: _____

Name/Title/Organization: Amy Claire Dempsey, M.A. President, Bioimpact, Inc.

Date: 6/8/2024
Responsible Entity Agency Official Signature: _____

Date: 6/11/2024

Name/Title: Dayna Clendinen, Chief Disaster Recovery Officer

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT:

8-STEP PROCESS

Virgin Islands Water and Power Authority – Propane Infrastructure Acquisition Project, St. Croix, U.S. Virgin Islands, USA

--Liquid Propane Gas Infrastructure Acquisition (Project No. P-17-VI-78-HIM1)
--Decision Process for E.O. 11988 as Provided by 24 CFR §55.20

Step 1: *Determine whether the action is located in the FFRMS floodplain*

The proposed action is in the Federal Flood Rick Management Standard (FFRMS) floodplain. The Virgin Islands Water and Power Authority (VIWAPA) Dock and near shore area which houses the loading arms, piping and fire suppression equipment is within FEMA 100-year VE 1% EL:17 and AE 1% EL:13. The nearshore areas which contain the piping are with Zone AE 1% EL:13 and Zone AE 1% EL: 12 as indicated on FEMA Flood Insurance Rate Map (FIRM) Panel 29 of 94, revised April 16, 2007. The FIRM is shown below as Figure 1. The remainder of the piping to the Liquid Propane Tanks (LPG) is within Federal Flood Risk Management Standard (FFRMS) floodplain. The FFRMS has been determined utilizing FEMA Advisory Base Flood Elevation Map (ABFE) (Figure 2) and the Free Board Value (FVA) approach (https://www.hud.gov/program_offices/comm_planning/environment_energy/ffrms/faqs). The VIWAPA facility is a critical action as defined by 24 CFR 55.2(B)(3)(i). The FVA is determined by adding 3ft for critical actions (power generation and storage of highly volatile materials) to the highest flood zone – based on the best available information. The best available information is the ABFE in the action area which in this case is VE 1% EL:17, and therefore the FFRMS floodplain elevation has been determined to be 20 ft. The ABFE map for the action area is provided as Figure 2.

The proposed action is the acquisition of the Liquid Propane Gas (LPG) infrastructure at the VIWAPA Richmond Power Plant in Christiansted, St. Croix funded under the U.S. Department of Housing and Urban Development Community Development Block Grant-Mitigation (CDBG-MIT) grant, Grant Number No. P-17-VI-78-HIM1. The Richmond Power Plant is located on Parcel Nos. 6 and 8 Penitentiary Land and Parcel 6A Reclaimed Land, in Christiansted, St. Croix (17˚45.106'N Latitude and 64˚42.912W Longitude). The power plant produces all the public power and water for the island of St. Croix. The plant includes reverse osmosis water production plants, 5 fuel oil storage tanks, 2 waste oil tanks, 4 gas turbines, a powerhouse, transformer storage, chemical storage, a spill cleanup warehouse, a temporary storage yard, office buildings, storage warehouses, a fuel pier with a combined discharge outfall, and a submerge seawater intake. The LPG infrastructure is located to the west of the main power plant. The LPG infrastructure is currently owned by Vitol LLC. The proposed project is located within the Virgin Islands Water and Power Authority's (VIWAPA) Richmond Power Plant. CDBG-MIT funds are for the acquisition of the LPG infrastructure including the fuel loading arms LPG pipelines from the fuel dock to the LPG storage tanks, LPG pipelines from the storage tanks to the vaporizer, the fire suppression system, and the control system. The LPG infrastructure being acquired is within the FFRMS floodplain. It is in place and in operation and no modifications are proposed.

The acquisition of the LPG infrastructure is critical to USVI's energy supply. The piers, infrastructure, and equipment (e.g., LPG system pumps, pipes, and fire suppression system) to be acquired, need to be in close proximity to the water to serve their purpose, they are "functionally dependent" to navigable

waters (i.e., offload and transport of LPG from cargo ships to storage tanks). The proposed acquisition of the LPG infrastructure within a coastal high hazard area (VE) meets the criteria of 24 CFR 55.8(a)(2) which allows for the use of federal funds for a functionally dependent use in a coastal high hazard area (VE) zone. E.O. 11988- Floodplain Management as amended by Executive Order 13690 applies. For this reason, E.O. 11988- Floodplain Management applies. This project does not meet any of the exceptions at 24 CFR 55.12 and therefore requires an 8-step analysis of the direct and indirect impacts associated with the existing construction, occupancy, and modification of the floodplain.

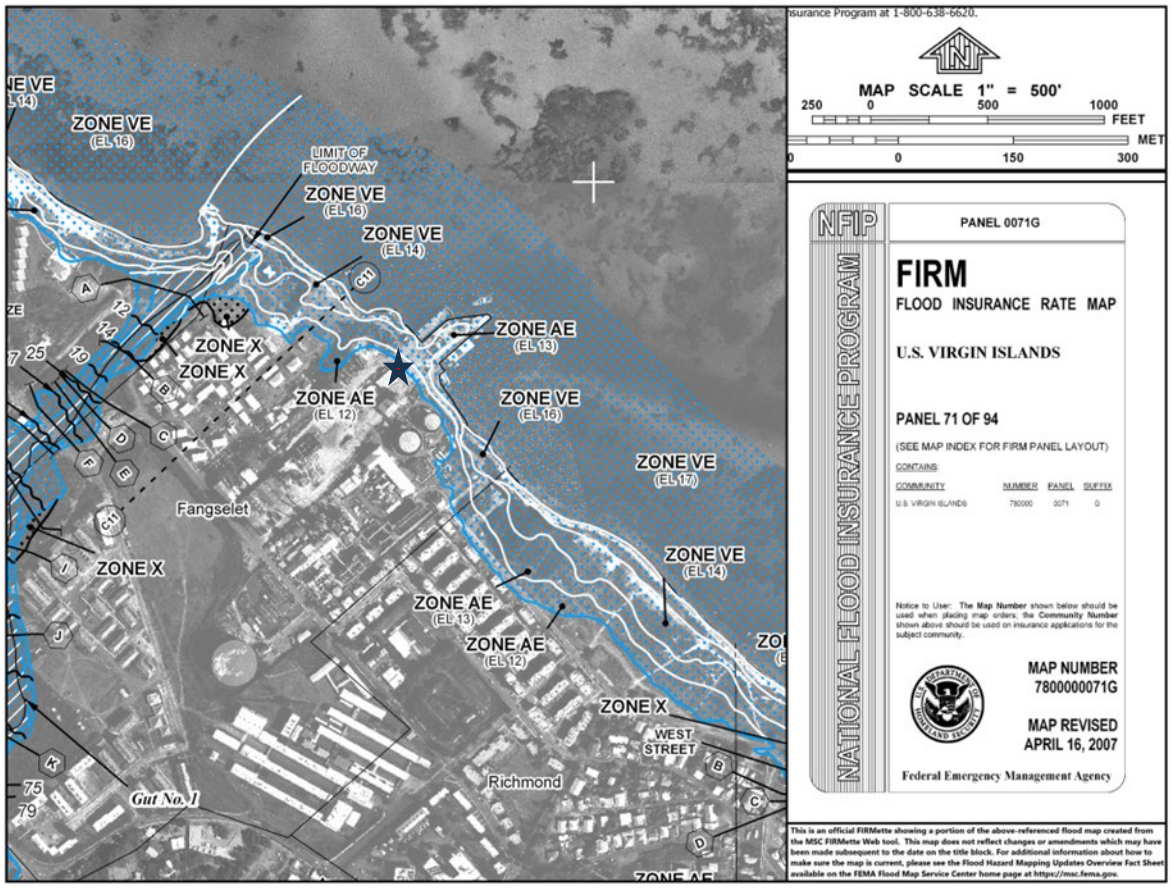


Figure 1. FEMA FIRM 29 of 94

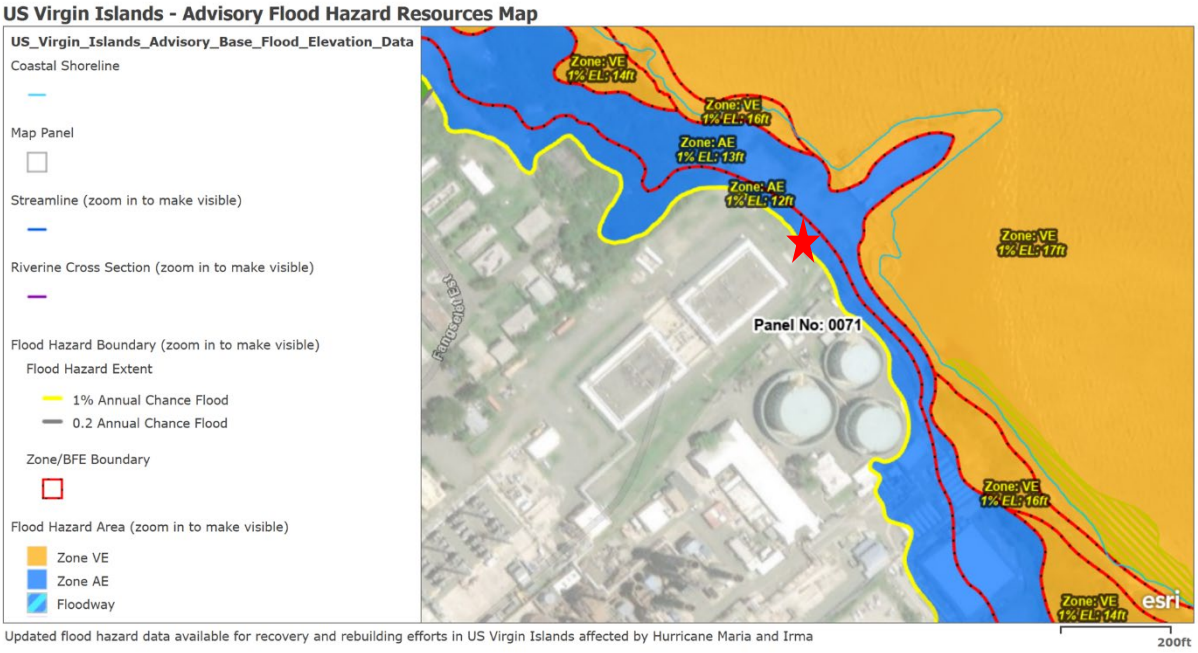


Figure 2. USVI Advisory Flood Hazard Resource Map

Step 2: *Notify the public for early review of the proposal and involve the affected and interested public in the decision-making process.*

An Early Floodplain Notice describing the project was electronically published in English and Spanish by the Virgin Islands Housing Finance Authority (VIHFA) on their official website on May 23, 2024. The notice was also sent to interested federal and territorial agencies. A list of specific agencies and a copy of the published notification is kept in the project's environmental review record and attached to this document. The required 15 calendar days were allowed for public comment. One comment was received from the United States Environmental Protection Agency (EPA). The EPA comments were related to air quality, and ensuring that the environmental justice communities are made aware of the proposed project. These comments do not directly relate to potential impacts to the FFRMS floodplain, and therefore require no change in the selected alternative. As required by regulation, the notice also included the name, proposed location and description of the activity, total number of acres involved, and the responsible entity contact for information Ms. Dayne Clendenin, Chief Disaster Recovery Officer as well as a website and the location and hours of the office at which a full description of the proposed action can be viewed.

The action, the acquisition of the LPG infrastructure has been properly noticed.

Step 3: *Identify and evaluate practicable alternatives.*

The proposed action is the acquisition of the LPG infrastructure to support the continued operation of the VIWAPA Richmond Power Plant. The infrastructure is responsible for the delivery of 100% of the LPG required by the power facility and almost 80% of the energy produced in the USVI is produced utilizing LPG (Source: VIWAPA CDBG-MIT Funding Application). VIWAPA was created in 1964 for the purpose of providing power and water for the Virgin Islands and VIWAPA has been operating the facility on that site since that time. The St. Croix generating facilities located in Estate Richmond (Penitentiary Lands) is on the north shore of Christiansted Harbor east of the town of Christiansted. In

order to obtain fuel and to operate the plant the power generating facility had to be situated adjacent to navigable waters which served as a means to obtain fuel from water borne vessels and to obtain water for cooling and for the production of potable water. In 2013 VIWAPA began the process of converting its fuel oil-based power generation to LPG, a fuel which was more economical (30% in 2013) and would decrease greenhouse gas emissions by over 20%. The LPG, like the fuel oil, requires fuel delivery by ship, and LPG delivery infrastructure improvements were made to the existing pier including fuel delivery arms and a fire suppression system and piping. At the time of development of the LPG infrastructure (2013-2014) the site conditions were evaluated and taken into consideration, and infrastructure to the greatest extent possible was located in Zone X where 100-year flooding was not expected (Figure 1, FIRM Map 29 of 94). The fuel arms, fire suppression system and piping to assess the storage tanks had to be located in Zones AE and VE because they are functionally dependent on accessing the vessel at the fuel pier. So, to address this issue these facilities were designed to withstand the forces of the AE and VE zones as well as Category V hurricanes. The existing assets to be acquired consist of the necessary equipment to offload propane from the supply ship and are comprised of the fuel loading arm, fuel loading hoses, piping to transport the fuel onshore, and fire suppression equipment. These were all designed based on the Unified Facilities Criteria (UFC) General Criteria for Waterfront Construction. Notably, the UFC manual mandates precise specifications regarding the placement of dockside utilities for ship service, emphasizing the necessity for utility connection points to be strategically located on the dock in close proximity to the ship's utility terminal, assuming its berthing position. The equipment was engineered to withstand the challenges posed by water intrusion and corrosion. Furthermore, the terminal facilities have been constructed to meet Seismic Zone 2 and Internation Building Code (IBC) Category IV (CAT IV) risk category. These standards are specifically tailored for facilities that operate continuously, providing essential services, especially during times of crisis such as those encountered in power generating stations or Propane Supply Infrastructure Marine Assets Flood Hazard Mitigation critical lifeline facilities. Key design principles adhered to include those outlined in the American Petroleum Institute (API) and Nation Fire Prevention Association (NFPA) codes, with a particular focus on American Society of Civil Engineers (ASCE)-10 for hurricane and seismic design considerations. It should be noted that since the development of the LPG infrastructure the infrastructure has withstood two Category V hurricanes (Irma and Maria 2017).

The criteria for meeting the goal of suppling LPG for the VIWAPA Richmond Plant are:

1. The infrastructure must be compatible with the existing LPG generating equipment;
2. The infrastructure must be compatible with the LPG delivery vessels and be able to access the Richmond Channel, the closest point of navigable water to the plant;
3. And the infrastructure must not impact the surrounding housing communities and businesses, especially EJ Communities.

Considered alternatives:

1. Develop new LPG delivery infrastructure on an adjacent site outside the existing plant.

   There is only one available site which could be developed to create the infrastructure necessary for the delivery of LPG to the power generating facility (i.e. creating the same LPG infrastructure proposed to be acquire) and this is the land immediately the east of the VIWAPA Plant. The land to the west would not be suitable since the Richmond Channel does not extend that far west and vessels could not access that parcel. The eastern property is in the same floodplain as the existing infrastructure but also contains a wetland. A new pier would have to be built to place the LPG infrastructure on which would extend into the VE 1% EL: 17ft zone, therefore the LPG infrastructure would be in the FFRMS. Creating new LPG infrastructure would require modification to protected environmental resources including seagrass beds, coral colonized

hardbottoms and a sea turtle nesting beach. The LPG Infrastructure like the existing LPG Infrastructure proposed for acquisition could be designed and constructed to have a negligible impact on the FFRMS flood- plain like the existing LPG Infrastructure and capable of delivering LPG to the plant, however, this alternative would result in significant environmental impact and a significantly greater monetary cost since it would require the permitting and development of a new pier and dredging of a new berthing area. This action would result in impacts to a flood zone which has not been altered.

2. Locating the Infrastructure outside the Floodplain but within the plant.

   This is not a practicable alternative; the vessel delivery infrastructure must be located offshore. All coastal waters surrounding the island of St. Croix are in the VE 100-year flood plain. Therefore, there is no alternative to locating the loading arms and fire suppression system outside the FFRMS. All of the Richmond Power Plant to elevation 20ft is within the FFRMS and there is nowhere within the plant where the LPG Infrastructure could be located which would be outside the FFRMS and be able to accomplish the delivery of LPG to the Richmond power generating equipment.

3. No Action Alternative

   The no action alternative will not have any change on the floodplain as the infrastructure that is already in place and will remain if the infrastructure is not acquired. Today LPG supplies almost 80% of the power to the Virgin Islands (USVI). If the infrastructure is not acquired VIWAPA will have to revert to operating on fuel oil (diesel) for producing electricity and water. Requiring the plant to convert back to utilizing diesel would increase the cost of fuel supply cost which would be transferred to residents thereby the no action alternative would have a direct adverse economic impact on residents of St. Croix. The use of diesel fuel would also increase environmental impacts through air emissions. Diesel produces 17% more carbon dioxide than propane (U.S. Energy Information Administration (www.eia.gov/environment/emissions/co2_vol_mass.php).

   On April 22, 2024, Governor Albert Bryan, Jr. declared a State of Energy Emergency in the United States Virgin Islands to Avert an Energy Crisis (Executive Order No 537-2024). The declaration layout the current crisis in USVI due to the rising energy cost and inability to pay critical vendors for fuel which is resulting in having to curtail power generation leading to rotating power outages which threatens the health, safety and economic stability of the residents of the USVI. The declaration lays out how this is impacting both residents and businesses in the USVI.

   Relying on a single fuel source puts the island at risk for island wide power outages. Acquiring the LPG Infrastructure maintains access to fuel storage capacity by providing 20 days of fuel storage at the Richmond facilities Not acquiring the LPG Infrastructure means that the facility will not be able to use its newest, most efficient and most reliable power generation. Without access to the LPG Infrastructure the facility would be forced to run on older, less efficient and less reliable units that can operate on diesel. Losing access to the propane facilities would render the newest generators useless, delaying payments to vendors working towards making the USVI less fossil fuel dependent.

The LPG Instructure currently exists and no alterations are proposed, the acquisition will have no impact on the floodplain. During the original design and development detailed alternative analysis was undertaken and the infrastructure was designed to address the 100-year flood zones and Category V hurricanes. The proposed acquisition will allow VIWAPA to continue operating on LPG which will result in cost savings for St. Croix residents and lowering the discharge of greenhouse gases and provide significant storage of fuel during periods of emergency. The acquisition of the LPG infrastructure will help address the current state of emergency without any expansion or additional impacts to or occupation of the floodplain.

Step 4: ***Identify Potential Direct and Indirect Impacts of Associated with Floodplain Development.***

This is the proposed acquisition of existing infrastructure which is currently in operation and no alterations are proposed. The initial project design took the coastal flooding into account and the project was designed so that only the equipment that was functionally dependent to the transfer of fuel was located with the floodplain. The infrastructure being acquired was designed to withstand coastal flooding including the VE zone. The structures which are in the floodplain have been elevated, buried and designed not be impacted by or to impact the flood plain's function. Specifically, the hoses which are used in the LPG transfer can be removed from the floodplain during periods of inclement weather. Further, the infrastructure design is such that the floodwaters flow unimpeded into the sea and do not result in backup of flood waters, accumulation or creation area of areas of scouring or erosion. The infrastructure designed has not impacted flood levels at the adjacent properties including other areas of the plant. . Prior to the 2017 hurricanes there were low-income housing developments to the southeast and northwest of the power facility which were operated under the Virgin Islands Housing Authority. Since hurricanes Irma and Maria in 2017 most of the low-income housing units to the northwest and southeast of the site have been demolished or are in the process of being demolished. Communities farther from the facility have not been impacted by the LPG infrastructure in the floodplain, but all are positively impacted by lower power cost, lower air emissions and more reliable power production. The 2020 Census map identifies the area around the plant as one of Low and Moderate Income and these areas are not impacted by the LPG infrastructure. The continued operation of the infrastructure does not result in impacts to the floodplain as the floodwaters flow around all of the infrastructure.

If the LPG infrastructure is not acquired the infrastructure will remain and there will be no changes in the floodplain whether or not the infrastructure is acquired.

The acquisition of the existing LPG infrastructure requires no alterations of the structures. It will continue existing operations and have no direct or indirect impact on the floodplain. Any impacts to the floodplain that resulted from the construction of the plant were adequately mitigated during its construction.

Step 5: ***Where practicable, design or modify the proposed action to minimize the potential adverse impacts to lives, property, and natural values within the floodplain and to restore, and preserve the values of the floodplain.***

The occupied floodplain is a highly altered coastline adjacent to an industrial plant and as such does not provide habitat for flora or fauna. The shoreline is highly altered and does not have any historic or cultural use and is not used for any recreational purposes, however it does provide coastal access. The site does allow for erosion control and has a water quality function as sheet flow passes across the

graveled and grassed shoreline. The occupied floodplain does not result in the backup or accumulation of floodwater which would impact residential communities. The existing LPG infrastructure was designed so that it does not have any impact on the flood plain (Bioimpact, et al, VIWAPA Environmental Assessment Report, Section 6.03, 2013, available as part of Environmental Record Review), the piping and loading arm and related mechanical equipment are all elevated above ground level and does not impede stormwater or runoff from flowing into the sea.

A) Preserving Lives: The infrastructure design is such that it does not result in changes in runoff or flooding, in the facility, or in the surrounding properties. There are no changes in the flood zone as a result of this existing infrastructure that poses a danger to workers at the plant or to residents of the nearest neighboring communities.

B) Preserving Property: The infrastructure design is such that it does not result in changes in runoff or flooding, in the facility, or in the surrounding properties that would create damage to structures of property.

C) Preserving Natural Values and Minimizing Impacts: The VIWAPA Richmond Facility is a highly altered property and the parcel where the LPG infrastructure is has been developed since the 1960 when it was Superior Block's sand and storage yard and there was a concrete plant on the site. Prior to the development of the site for the LPG infrastructure there were no remaining natural resources on the site. The facility's design and operation are such that it does not have an impact on any natural resources.

The estimated remaining useful life of the project is 20 years. The project has been in operation for 7 years, implying a total useful life of 25-30 years, which is consistent with industry standards for assets of this type. VIWAPA undertakes maintenance and VIWAPA employs a third-party Operation and Maintenance services provider, Saintnals, to manage the day-to-day operations and maintenance of the LPG terminals. VIWAPA oversees and works closely with the third-party provider to ensure the project is operated and maintained effectively.

The proposed action only involves acquisition of the existing LPG infrastructure, and no further development or expansion of the occupied floodplain footprint are being proposed and therefore the project will not have any additional impacts on the floodplain, and as stated above, any potential impacts to the floodplain that resulted from the construction of the plant at the site were adequately mitigated during its construction. Therefore, VIHFA has determined that additional modification of the alternatives initially considered are not necessary.

Step 6: *Reevaluate the Alternatives.*

The location of the infrastructure is functionally dependent on being located close to navigable waters so LPG can be delivered, there is no LPG source available on the island and it must be brought in from off island. The LPG infrastructure as constructed was designed to avoid or minimize impacts to the floodplain or impact adjacent properties and facilities. The selected alternative, acquiring the existing LPG infrastructure will not negatively impact the floodplain operation of the plant or adjacent properties or facilities. The selected alternative meets the project goals of allowing the Richmond Plant to receive LPG and supply propane to its customers without having any adverse direct or indirect effects on the flood plain.

Creating a new facility would have a significant monetary cost, $750 - $800 million (rough estimate provided verbally by Vivot Equipment Corporation-VI licensed Marine Construction Company) and the dredging of a new berth. The total cost of the facility would be between $700-800 million dollars. The project would also have a significant environmental impact. Constructing a new facility would be cost prohibitive and not a practicable alternative. Using the existing infrastructure has no impact on the natural environment.

The no action alternative is impracticable as it will not allow the VIWAPA facility to operate on LPG a more economical more environmentally friendly alternative.

Step 7: *Determination of No Practicable Alternative*

It is VIHFA's determination that there is no practicable alternative for acquiring the existing LPG infrastructure within the FFRMS floodplain.. Any alternative facility would require access to navigable waters for vessels delivering fuel. Because of the functional dependency to water, any alternative facility would be in the VE zone.

The acquisition of the infrastructure is critical to USVI's energy supply. The proposed project will maintain access to and the use of the propane supply infrastructure via acquisition. The acquisition of the propane supply infrastructure since these assets are used to supply over 80% of the fuel used for power generation in the Territory (VIWAPA funding application). The Territory's power generation fleet has been specifically designed to utilize the LPG infrastructure. Over 40 megawatts of VIWAPA's newest and most efficient existing generation can only operate on LPG. The acquisition of the LPG infrastructure will:

(1) Without the propane supply infrastructure, VIWAPA will be reliant on diesel as a single fuel for power generation. This increases the risk of fuel supply chain disruptions caused by a future disaster..

(2) Maintain access to full storage capacity. The propane supply infrastructure includes an 20 days of fuel storage on St. Croix. Having full fuel storage capacity reduces the impact of potential fuel supply chain disruptions caused by a future disaster. Achievement of this risk reduction can be measured and verified with data on the utilization of this storage capacity over time.

Step 8: *Implement the Proposed Action*

VIHFA as the representative of HUD will fund VIWAPA's acquisition of the LPG infrastructure so that VIWAPA can continue to supply more economic reliable power to the people of St. Croix. By acquiring the LPG infrastructure, the Authority will be more resilient and better prepared to withstand future disasters. The action proposed is the acquisition of the LPG infrastructure with no alterations therefore there will be no impact to the FFRMS floodplain.

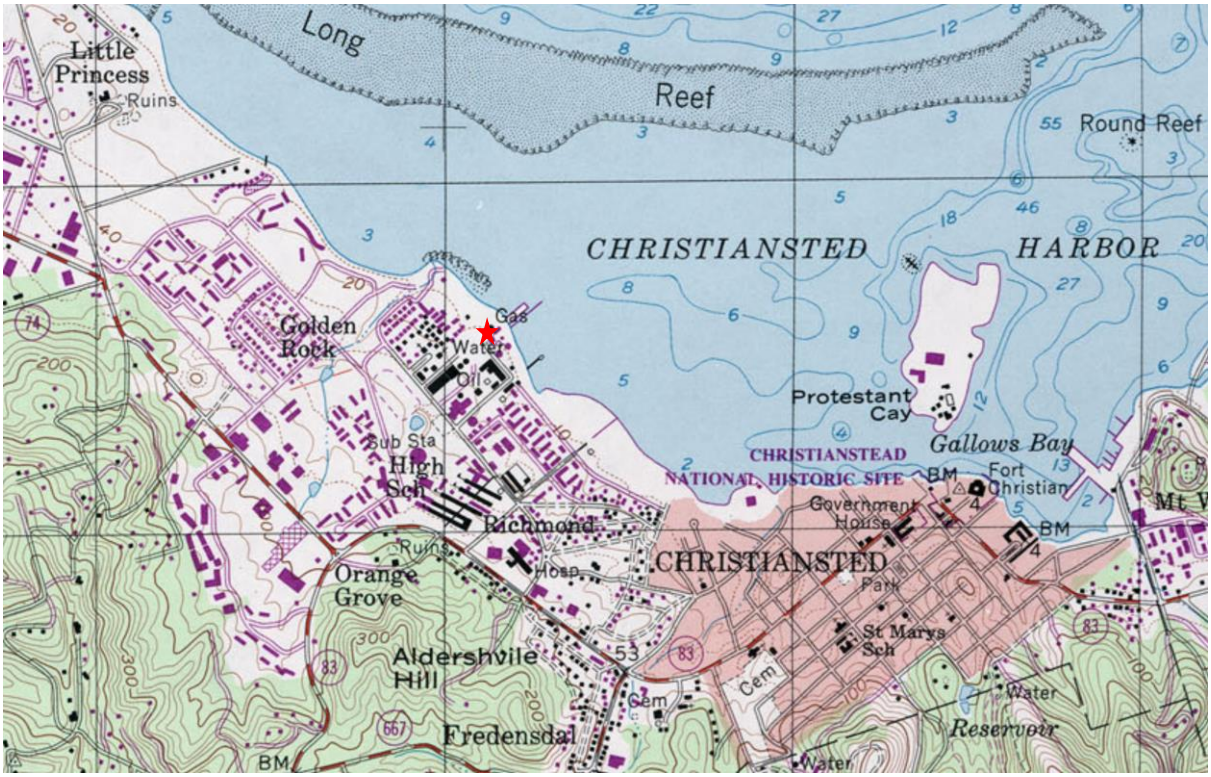


Figure 1. Christiansted Quadrangle Map, U.S. Virgin Islands 7.5 Minutes Series : Project Location shown as red star.

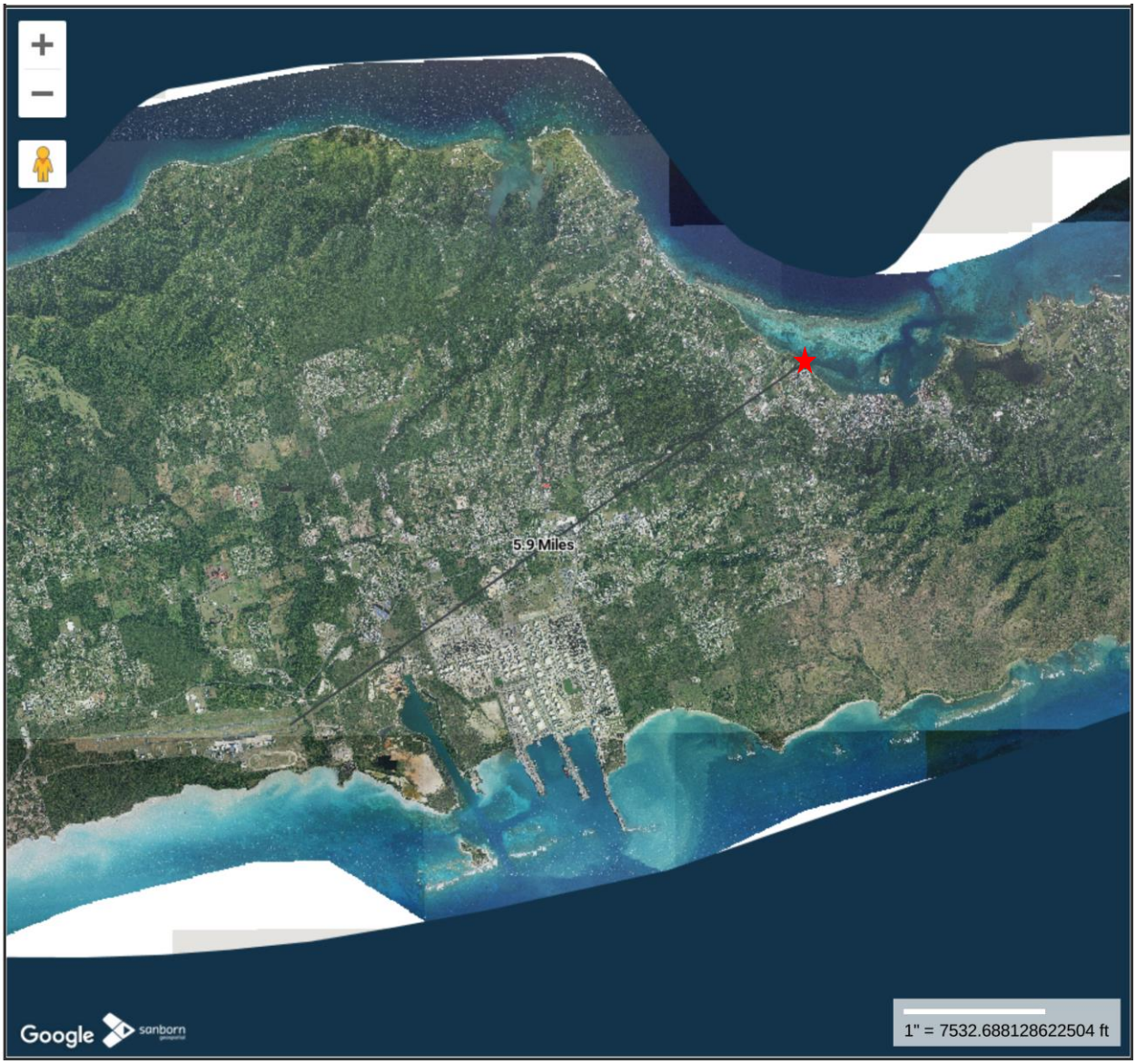


Figure 2. The LPG infrastructure being acquired is approximately 6 miles from the Henry E. Rohlsen Airport and is not within typical flight paths. The Richmond facility is shown as the red star.

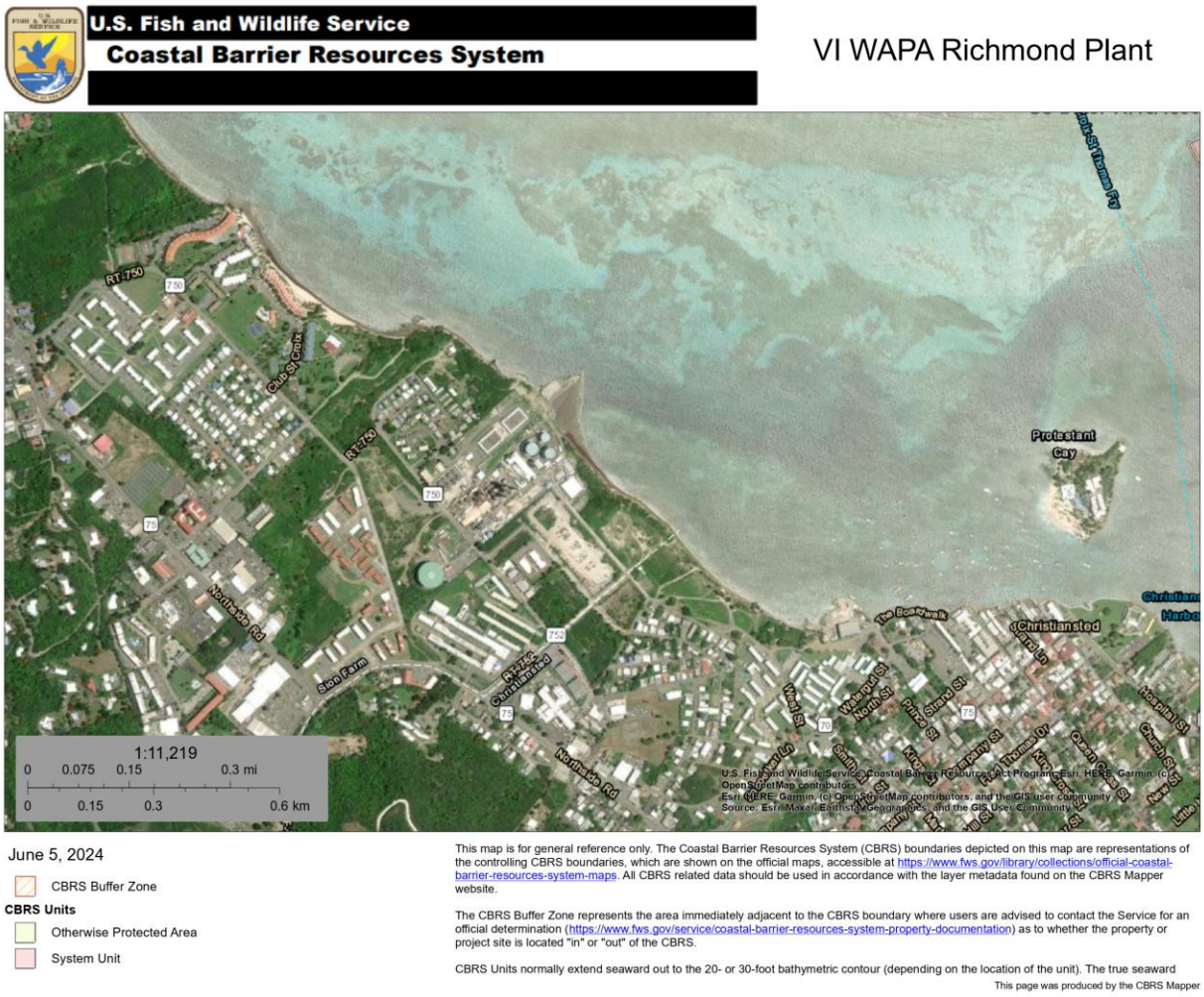


Figure 3. The Richmond Power Plant in relationship to the Coastal Barrier, there are no Coastal Barriers near the facility.

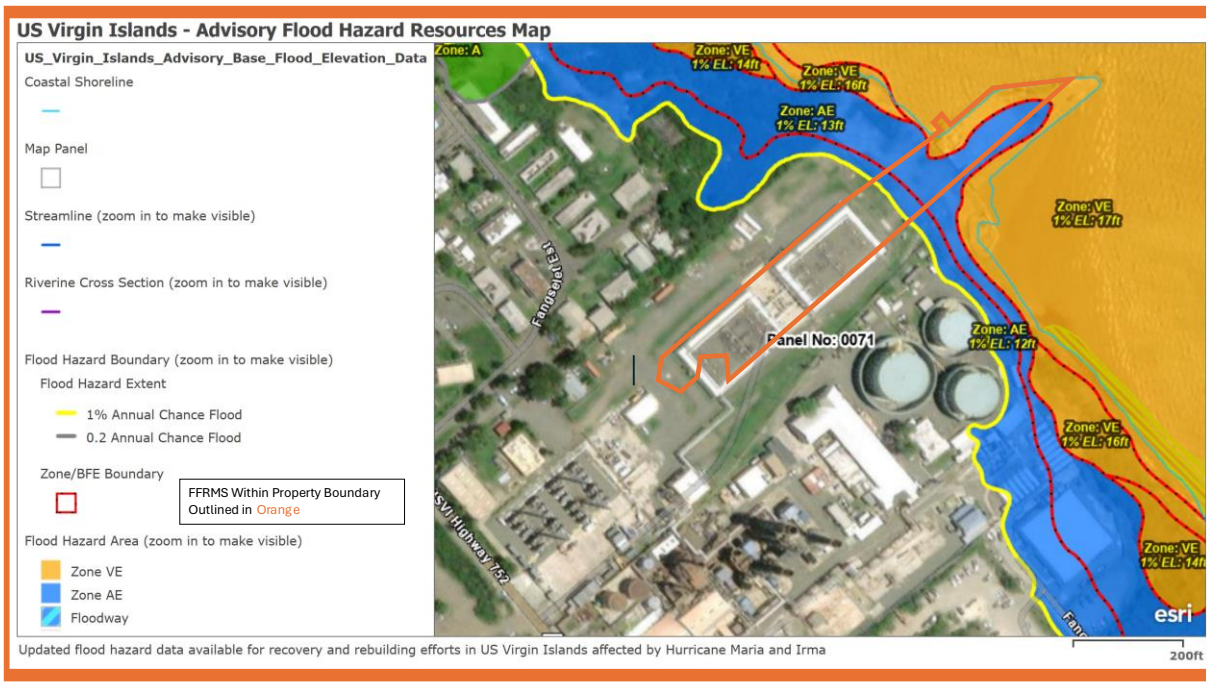


Figure 4. FEMA Flood Zone VE, Flood Zone AE, and Flood Zone X and FFRMS Floodplain within the VIWAPA Property containing the LPG Infrastructure.

NEPAssist Report

Vitol LPG STX

Project Location	17.751513,-64.714302
Within 1 mile of an Ozone 1-hr (1979 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2015 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a SO2 1-hr (2010 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 24hr (2006 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM2.5 Annual (2012 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a PM10 (1987 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a CO Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a NO2 Annual (1971 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Federal Land?	no
Within 1 mile of an impaired stream?	no
Within 1 mile of an impaired waterbody?	yes
Within 1 mile of a waterbody?	yes
Within 1 mile of a stream?	yes
Within 1 mile of an NWI wetland?	Available Online
Within 1 mile of a Brownfields site?	yes
Within 1 mile of a Superfund site?	no
Within 1 mile of a Toxic Release Inventory (TRI) site?	yes
Within 1 mile of a water discharger (NPDES)?	yes
Within 1 mile of a hazardous waste (RCRA) facility?	yes
Within 1 mile of an air emission facility?	yes
Within 1 mile of a school?	yes
Within 1 mile of an airport?	no
Within 1 mile of a hospital?	yes
Within 1 mile of a designated sole source aquifer?	no
Within 1 mile of a historic property on the National Register of Historic Places?	yes
Within 1 mile of a Chemical Data Reporting (CDR) site?	no
Within 1 mile of a Land Cession Boundary?	no
Within 1 mile of a tribal area (lower 48 states)?	no
Within 1 mile of the service area of a mitigation or conservation bank?	no
Within 1 mile of the service area of an In-Lieu-Fee Program?	no
Within 1 mile of a Public Property Boundary of the Formerly Used Defense Sites?	no
Within 1 mile of a Munitions Response Site?	no
Within 1 mile of an Essential Fish Habitat (EFH)?	yes
Within 1 mile of a Habitat Area of Particular Concern (HAPC)?	yes
Within 1 mile of an EFH Area Protected from Fishing (EFHA)?	yes
Within 1 mile of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 1 mile of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	yes
Within 1 mile of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

Figure 5. EJ Screening Indexes Non-attainment

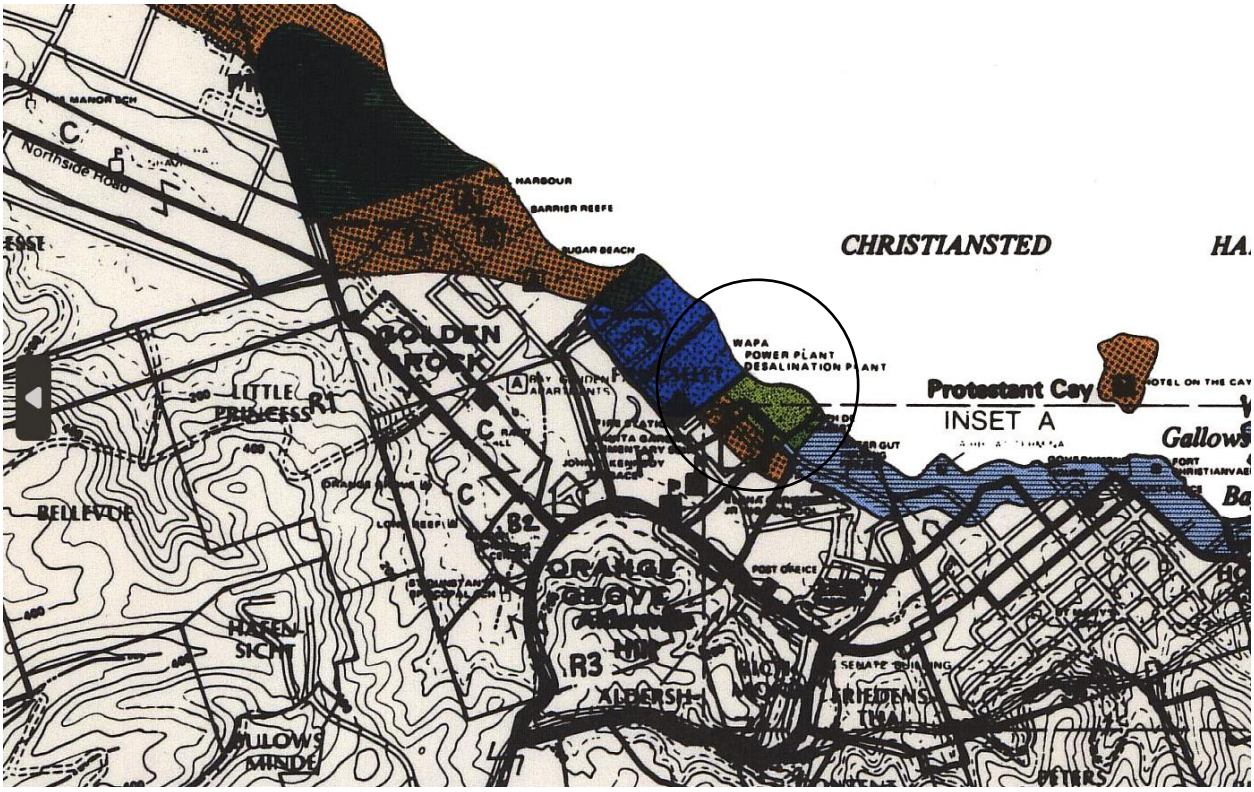
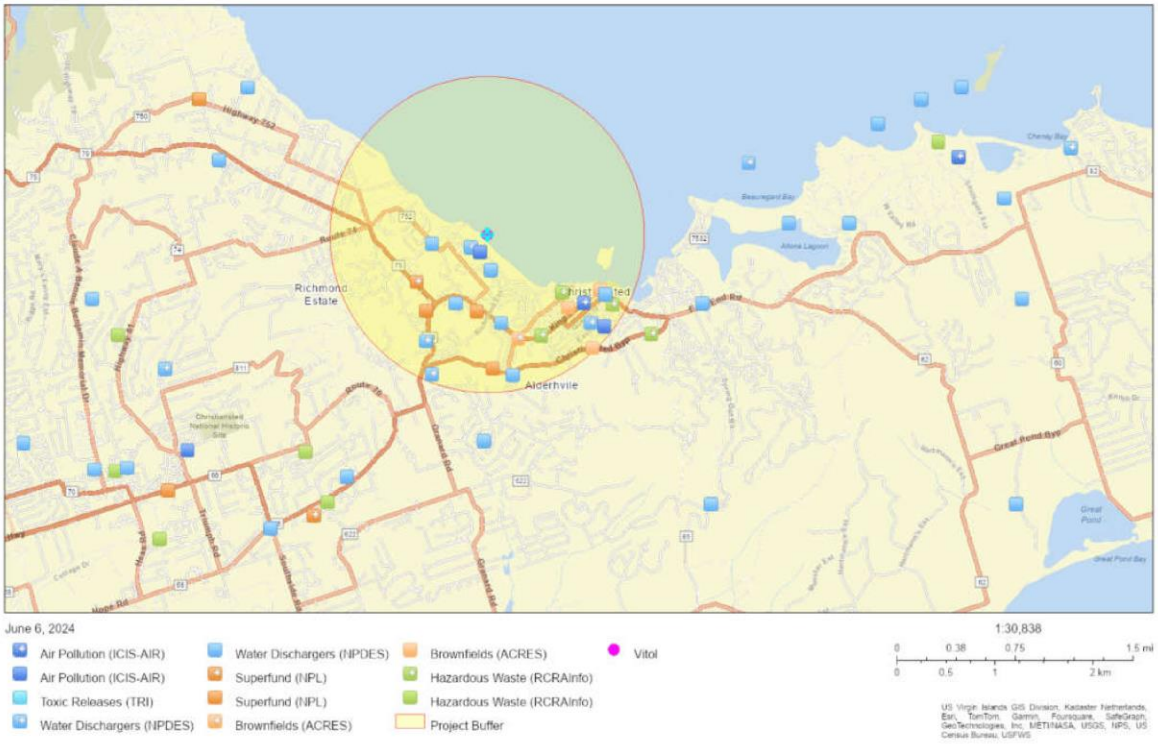


Figure 6. The Coastal Zone Management (CZM) first tier jurisdiction is shown in color. The Power Facility and its associated LPG infrastructure is in the first tier and has been permitted by CZM.

NEPAssist Report

Vitol

A3 Landscape



Project Location	17.751734,-64.714104
Within 1 mile of an Ozone 1-hr (1979 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (1997 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2008 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of an Ozone 8-hr (2015 standard) Non-Attainment/Maintenance Area?	no
Within 1 mile of a Lead (2008 standard) Non-Attainment/Maintenance Area?	no
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Within 1 mile of a waterbody?	yes
Within 1 mile of a stream?	yes
Within 1 mile of an NWI wetland?	Available Online
Within 1 mile of a Brownfields site?	yes
Within 1 mile of a Superfund site?	no

Within 1 mile of a Toxic Release Inventory (TRI) site?	yes
Within 1 mile of a water discharger (NPDES)?	yes
Within 1 mile of a hazardous waste (RCRA) facility?	yes
Within 1 mile of an air emission facility?	yes
Within 1 mile of a school?	yes
Within 1 mile of an airport?	no
Within 1 mile of a hospital?	yes
Within 1 mile of a designated sole source aquifer?	no
Within 1 mile of a historic property on the National Register of Historic Places?	yes
Within 1 mile of a Chemical Data Reporting (CDR) site?	no
Within 1 mile of a Land Cession Boundary?	no
Within 1 mile of a tribal area (lower 48 states)?	no
Within 1 mile of the service area of a mitigation or conservation bank?	no
Within 1 mile of the service area of an In-Lieu-Fee Program?	no
Within 1 mile of a Public Property Boundary of the Formerly Used Defense Sites?	no
Within 1 mile of a Munitions Response Site?	no
Within 1 mile of an Essential Fish Habitat (EFH)?	yes
Within 1 mile of a Habitat Area of Particular Concern (HAPC)?	yes
Within 1 mile of an EFH Area Protected from Fishing (EFHA)?	yes
Within 1 mile of a Bureau of Land Management Area of Critical Environmental Concern?	no
Within 1 mile of an ESA-designated Critical Habitat Area per U.S. Fish & Wildlife Service?	yes
Within 1 mile of an ESA-designated Critical Habitat river, stream or water feature per U.S. Fish & Wildlife Service?	no

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Facility Summary

VITOL VIRGN ISLANDS CORP LPG FACILITY

PRR 752 ESTATE RICHMOND, ST CROIX, VI 00821

FRS (Facility Registry Service) ID: 110064578201

EPA Region: 02

Latitude: 17.750583

Longitude: -64.715694

Locational Data Source: NPDES

Industries: --

Indian Country: N

Enforcement and Compliance Summary

Statute	CWA
Compliance Monitoring Activities (5 years)	--
Date of Last Compliance Monitoring Activity	--
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	--
Formal Enforcement Actions (5 years)	--
Penalties from Formal Enforcement Actions (5 years)	--
EPA Cases (5 years)	--
Penalties from EPA Cases (5 years)	--

Regulatory Information

Clean Air Act (CAA): No Information

Clean Water Act (CWA): Non-Major, Permit Expired (VIR050011)

Resource Conservation and Recovery Act (RCRA): No Information

Safe Drinking Water Act (SDWA): No Information

Other Regulatory Reports

Air Emissions Inventory (EIS): No Information

Greenhouse Gas Emissions (eGGRT): No Information

Toxic Releases (TRI): No Information

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Go To Enforcement/Compliance Details

Known Data Problems <https://epa.gov/resources/echo-data/known-data-problems>

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110064578201					N	17.750583	-64.715694

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
ICIS-NPDES	CWA	VIR050011	Non-Major: General Permit Covered Facility	Expired	Industrial Stormwater	12/31/2016	N	17.7505833	-64.7156944

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110064578201	VITOL VIRGN ISLANDS CORP LPG FACILITY	PRR 752 ESTATE RICHMOND, ST CROIX, VI 00821	St. Croix Island
ICIS-NPDES	CWA	VIR050011	VITOL VIRGN ISLANDS CORP LPG FACILITY	PRR 752 ESTATE RICHMOND, ST. CROIX, VI 00821	

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
ICIS-NPDES	VIR050011	1629	Heavy Construction

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description

No data records returned

Facility Industrial Effluent Guidelines

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description

No data records returned

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)

No data records returned

Enforcement and Compliance

Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)

No data records returned

Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> *activities or because they are not counted as inspections within EPA's Annual Results* <https://www.epa.gov/enforcement/enforcement-data-and-results>.

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CWA	VIR050011	No	12/31/2023	0	05/31/2024

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13+
CWA (Source ID: VIR050011)		01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-05/31/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	Undetermined
	Quarterly Noncompliance Report History													

Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date

No data records returned

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions

Last 5 Years

Statute	System	Law/ Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/ Filed Date	Settlements/ Actions	Settlement/ Action Date	Federal Penalty Assessed	State/ Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost

No data records returned

Environmental Conditions

Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
210200020103	Northeastern St. Croix	--	No	No	--	Yes

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use

No data records returned

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)

No data records returned

Pollutants

Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers

No data records returned

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name

No data records returned

CWA (Clean Water Act) Discharge Monitoring Report (DMR) Pollutant Loadings

DMR and TRI Multi-Year Loading Report

NPDES ID	Description

No data records returned

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the

existence or absence of EJ concerns. For more information, see the EJScreen home page.

Potential Environmental Justice Concerns

US Territory

EJScreen index information is unavailable for locations in American Samoa, Guam, Commonwealth of the Northern Mariana Islands (CNMI), and the US Virgin Islands.

Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. Census boundaries and demographic data for U.S. Territories are based on the "2020 Island Areas Demographic Profiles" from the U.S. Census Bureau. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <https://epa.gov/help/reports/dfr-data-dictionary#demographic>.

General Statistics (U.S. Census)	
Total Persons	3,346
Population Density	1,863/sq.mi.
Housing Units in Area	2,601
Percent Minority Population	90%
Low Income Population	1,151 (34%)
Less than High School Population	458 (20.92%)

Geography	
Radius of Selected Area	1 mi.
Center Latitude	17.750583
Center Longitude	-64.715694

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	231 (7%)
Seniors 65 years and older	556 (17%)

Figure 7. Results of NEPA Assist.

Detailed Facility Report

Facility Summary

VIRGIN ISLANDS WATER & POWER AUTHORITY ESTATE RICHMOND GENERATING STATION

1 PENITENTIARY LANE, CHRISTIANSTED, VI 00821

FRS (Facility Registry Service) ID: 110000602866

EPA Region: 02

Latitude: 17.750141

Longitude: -64.714793

Locational Data Source: FRS

Industries: Heavy and Civil Engineering Construction

Indian Country: N

Enforcement and Compliance Summary

Statute	CAA
Compliance Monitoring Activities (5 years)	2
Date of Last Compliance Monitoring Activity	09/15/2022
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Statute	CWA
Compliance Monitoring Activities (5 years)	5
Date of Last Compliance Monitoring Activity	09/01/2023
Compliance Status	Significant/Category I Noncompliance
Qtrs in Noncompliance (of 12)	12
Qtrs with Significant Violation	9
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	1
Penalties from Formal Enforcement Actions (5 years)	$0
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Statute	EPCRA
Compliance Monitoring Activities (5 years)	–
Date of Last Compliance Monitoring Activity	–
Compliance Status	–
Qtrs in Noncompliance (of 12)	–
Qtrs with Significant Violation	–
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Statute	RCRA
Compliance Monitoring Activities (5 years)	–
Date of Last Compliance Monitoring Activity	03/11/2015
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Statute	SDWA
Compliance Monitoring Activities (5 years)	1
Date of Last Compliance Monitoring Activity	09/22/2023
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Regulatory Information

Clean Air Act (CAA): Operating Major (VI0000007800100001)

Clean Water Act (CWA): Non-Major, Permit Terminated; Compliance Tracking Off (VIGSA0093), Major, Permit Expired (VI0000051)

Resource Conservation and Recovery Act (RCRA): Active SQG, (VID980301592)

Safe Drinking Water Act (SDWA): OWNER: State government, SOURCE: Surface water, TYPE: Community water system Permit Inactive - 1992-09-01 (VI0000417), OWNER: State government, PRIMARY SERVICE AREA DESCRIPTION: Wholesaler of

Other Regulatory Reports

Air Emissions Inventory (EIS): 7439311

Greenhouse Gas Emissions (eGGRT): 1008001

Toxic Releases (TRI): 00821VRGNSESTAT

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Water, SOURCE: Surface water, TYPE: Community water system Permit Active (VI0000097)

Go To Enforcement/Compliance Details
Known Data Problems <https://epa.gov/resources/echo-data/known-data-problems>

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110000602866					N	17.750141	-64.714793
ICIS		600007765					N	17.751639	-64.714865
ICIS		32400					N	17.751639	-64.714865
ICIS		33428					N	17.751639	-64.714865
ICIS		7733002					N	17.751639	-64.714865
ICIS		32401					N	17.751639	-64.714865
ICIS		2600027758					N	17.752778	-64.713889
ICIS-Air	CAA	VI0000007800100001	Major Emissions	Operating	CAANSPS, CAANSR, CAAPSD, CAASIP, CAATVP		N	17.751639	-64.714865
EIS	CAA	7439311					N	17.75277	-64.71389
GHGRP	CAA	1008001	Direct Emitter	Reporting Year 2022: Emitter - Reporting and meeting Verification requirements.	General Stationary Fuel Combustion		N		
ICIS-NPDES	CWA	VIGSA0093	Non-Major: General Permit Covered Facility	Terminated; Compliance Tracking Off		12/01/2017	N	17.7505833	-64.7156944
ICIS-NPDES	CWA	VI0000051	Major: NPDES Individual Permit	Expired		09/30/2020	N	17.751944	-64.715833
TRI	EP313	00821VRGNSESTAT	Toxics Release Inventory	Last Reported for 2022			N	17.749667	-64.714452
RCRAInfo	RCRA	VID980301592	SQG	Active (H)			N	17.757815	-64.650111
SDWIS	SDWA	VI0000417	OWNER: State government, SOURCE: Surface water, TYPE: Community water system	Inactive - 1992-09-01	Population Served: 150		N		
SDWIS	SDWA	VI0000097	OWNER: State government, PRIMARY SERVICE AREA DESCRIPTION: Wholesaler of Water, SOURCE: Surface water, TYPE: Community water system	Active	Population Served: 35000		N		

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110000602866	VIRGIN ISLANDS WATER & POWER AUTHORITY ESTATE RICHMOND GENERATING STATION	1 PENITENTIARY LANE, CHRISTIANSTED, VI 00821	St. Croix Island
ICIS		600007765	VI WATER AND POWER AUTHORITY	RICHMOND ESTATE, CHRISTIANSTED, VI 00821	
ICIS		32400	VIRGIN ISLANDS WATER & POWER AUTH	CHRISTIANSTED, ST CROIX, VI 00820	
ICIS		33428	VIRGIN ISLANDS WATER & POWER AUTHORITY	ESTATE RICHMOND, SAINT CROIX, VI 00821	
ICIS		7733002	VI WATER AND POWER AUTHORITY	RICHMOND FACILITY, CHRISTIANSTED, VI 00820	
ICIS		32401	VI WATER AND POWER AUTHORITY	CHRISTIANSTED HARBOR E RICHMON, ST CROIX, VI 00820	
ICIS		2600027758	ESTATE RICHMOND GENERATING PLANT	ESTATE RICHMOND, CHRISTIANSTED, ST. CROIX, VI 00821	St. Croix Island
ICIS-Air	CAA	VI0000007800100001	VI WATER & POWER AUTHORITY (ST CROIX)	ESTATE RICHMOND, ST. CROIX ISLAND, VI 00820	St. Croix Island
EIS	CAA	7439311	VIRGIN ISLANDS WATER & POWER AUTHORITY	ESTATE RICHMOND, CHRISTIANSTED, VI 00821	St. Croix Island
GHGRP	CAA	1008001	VI WATER AND POWER AUTHORITY, Richmond Plant	1 Penitentiary Lane, CHRISTIANSTED, VI 00820	St. Croix Island
ICIS-NPDES	CWA	VIGSA0093	RICHMOND POWER PLANT LPG CONVERSION PROJECT	ROUTE 752 ESTATE RICHMOND, ST. CROIX, VI 00821	
ICIS-NPDES	CWA	VI0000051	V.I. WATER & POWER AUTHORITY	ESTATE RICHMOND, ST. CROIX, VI 00821	St. Croix Island
TRI	EP313	00821VRGNSESTAT	VIRGIN ISLANDS WATER & POWER AUTHORITY	ESTATE RICHMOND, CHRISTIANSTED, VI 00821	St. Croix Island
RCRAInfo	RCRA	VID980301592	VIRGIN ISLANDS WATER AND POWER AUTHORITY ESTATE RICHMOND POWER PLANT	1 & 2 PENETENTIARY LAND, CHRISTIANSTED, VI 00820	St. Croix Island
SDWIS	SDWA	VI0000417	V.I. WATER & POWER STX (PLANT)	VI	
SDWIS	SDWA	VI0000097	WATER AND POWER AUTHORITY-STX	VI	

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
ICIS-Air	VI0000007800100001	4911	Electric Services
ICIS-NPDES	VI0000051	4911	Electric Services
ICIS-NPDES	VIGSA0093	1541	Industrial Buildings And Warehouses

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
TRI	00821VRGNSESTAT	221112	Fossil Fuel Electric Power Generation
TRI	00821VRGNSESTAT	221119	Other Electric Power Generation
GHGRP	1008001	221112	Fossil Fuel Electric Power Generation

Facility Industrial Effluent Guidelines

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description
VI0000051	423	Steam electric power generating point source category

System	Identifier	NAICS Code	NAICS Description
EIS	7439311	221112	Fossil Fuel Electric Power Generation
ICIS-Air	VI0000007800100001	221112	Fossil Fuel Electric Power Generation
RCRAInfo	VID980301592	23711	Water and Sewer Line and Related Structures Construction
RCRAInfo	VID980301592	23713	Power and Communication Line and Related Structures Construction
RCRAInfo	VID980301592	23799	Other Heavy and Civil Engineering Construction
RCRAInfo	VID980301592	42471	Petroleum Bulk Stations and Terminals

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)

No data records returned

Enforcement and Compliance

RCRA (Hazardous Waste (Resource Conservation and Recovery Act) Compliance Pipeline (Compliance Monitoring >> Violations >> Enforcement Actions) (10 Years)

This table shows how violations relate to compliance monitoring (CM) activities and enforcement. Currently available for RCRA only. Full CM history available below.

No data records returned

There are no relationships to display in the RCRA Compliance Pipeline table for this facility. Scroll down to view compliance monitoring history.

Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
CAA	VI0000007800100001	ICIS-Air	Inspection/Evaluation	FCE On-Site	EPA	09/15/2022	
CAA	VI0000007800100001	ICIS-Air	Inspection/Evaluation	FCE On-Site	EPA	10/29/2020	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program - Evaluation	EPA	09/01/2023	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program - Evaluation	State	05/03/2022	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program - Sampling	State	03/04/2020	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program, Industrial Stormwater - Evaluation	EPA	11/08/2019	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program - Sampling	State	09/05/2019	
SDWA	VI0000097	ICIS	Inspection/Evaluation	On Site Visit	EPA	09/22/2023	

Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> *activities or because they are not counted as inspections within EPA's Annual Results* <https://www.epa.gov/enforcement/enforcement-data-and-results>.

SDWA (Safe Drinking Water Act) Sanitary Survey Results (5 Years)

Source ID	Date	Type	Agency	Data Verification	Distribution	Management Operation	Finished Water Storage	Operator Compliance	Other Evaluation	Pumps	Security	Source	Financial	Treatment

No data records returned

Sanitary survey result codes:

S = Significant Deficiencies
M = Minor Deficiencies
R = Recommendations Made
N = No Deficiencies or Recommendations
X = Not Evaluated
Z = Not Applicable
D = Sanitary Defect
-- = Not Reported to EPA

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CAA	VI0000007800100001	No	06/01/2024	0	05/31/2024
CWA	VIGSA0093	No	12/31/2023	0	05/31/2024
CWA	VI0000051	Yes	12/31/2023	12	05/31/2024
RCRA	VID980301592	No	06/01/2024	0	05/31/2024
SDWA	VI0000417	No	12/31/2023	0	04/10/2024
SDWA	VI0000097	No	12/31/2023	0	04/10/2024

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
CAA (Source ID: VI0000007800100001)		07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	HPV History												

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
	Violation Type	Agency	Programs	Pollutants												

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8
	CWA (Source ID: VIGSA0093)				**01/01-03/31/21**	**04/01-06/30/21**	**07/01-09/30/21**	**10/01-12/31/21**	**01/01-03/31/22**	**04/01-06/30/22**	**07/01-09/30/22**	**10/01-12/31/22**
	Facility-Level Status				Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit
	Quarterly Noncompliance Report History											
	CWA (Source ID: VI0000051)				**01/01-03/31/21**	**04/01-06/30/21**	**07/01-09/30/21**	**10/01-12/31/21**	**01/01-03/31/22**	**04/01-06/30/22**	**07/01-09/30/22**	**10/01-12/31/22**
	Facility-Level Status				Violation Identified	Violation Identified	Violation Identified	Significant/Category I Noncompliance	Significant/Category I Noncompliance	Significant/Category I Noncompliance	Significant/Category I Noncompliance	Significant/Category I Noncompliance
	Quarterly Noncompliance Report History				Reportable Noncompliance	Reportable Noncompliance	Reportable Noncompliance	Effluent - Non-monthly Average Limit	Compliance/Permit Schedule - Violations	Compliance/Permit Schedule - Violations	Compliance/Permit Schedule - Violations	Compliance/Permit Schedule - Violations
	Pollutant	**Disch Point**	**Mon Loc**	**Freq**								
CWA	pH <effluent-charts#vi0000051/00400> [redacted] <https://epa.gov/effluent-charts#vi0000051/00400>	001 - A	Effluent Gross	NMth								
CWA	Iron, total [as Fe] <effluent-charts#vi0000051/01045> [redacted] <https://epa.gov/effluent-charts#vi0000051/01045>	002 - A	Effluent Gross	NMth			**50%**	**101%**	**67%**	**1080%**		**84%**
CWA	Oil & Grease <effluent-charts#vi0000051/00556> [redacted] <https://epa.gov/effluent-charts#vi0000051/00556>	002 - A	Effluent Gross	Mthly			23%					
CWA	Oil & Grease <effluent-charts#vi0000051/00556> [redacted] <https://epa.gov/effluent-charts#vi0000051/00556>	002 - A	Effluent Gross	NMth			84%					
CWA	Solids, total suspended <effluent-charts#vi0000051/00530> [redacted] <https://epa.gov/effluent-charts#vi0000051/00530>	002 - A	Effluent Gross	NMth			20%				52%	
	Single Event Violations			**Agency**								
CWA	Effluent Violations - Failed Toxicity Test			State	**07/19/2016-07/20/2016**							
CWA	Effluent Violations - Numeric effluent violation			EPA	**11/08/2019**	→	→	→	→	→	→	→
CWA	Management Practice Violations - Best Management Practice Deficiencies			EPA	**11/08/2019**	→	→	→	→	→	→	→
	Compliance Schedule Violations			**Case No.**								
CWA	Achieve Final Compliance With All Obligations Under This order			02-2020-3100				**11/17/2021**	→	→	→	→
	Late or Missing Discharge Monitoring Report (DMR) Measurements											
	Counts of Late DMR Measurements											

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8
	Counts of Missing DMR Measurements	1	1	1	1	3	1	1	1

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA (Source ID: VID980301592)		07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	Violation Agency												

Statute	Violation Type/Category	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13*
SDWA (Source ID: VI0000097)		01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	In Progress
	Category Violation Type													
SDWA (Source ID: VI0000417)		01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive
	Category Violation Type													

*Quarter 13 data is voluntarily entered and/or incomplete, and may not form a complete picture for that quarter. Read more <https://epa.gov/help/reports/dfr-data-dictionary#sdwacomp>

SDWA Compliance Data Last Reported: 12/31/2023

Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date

No data records returned

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions

Last 5 Years

Statute	System	Law/ Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/ Filed Date	Settlements/ Actions	Settlement/ Action Date	Federal Penalty Assessed	State/ Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
CWA	ICIS-NPDES	301/402	NPDES/VI0000051	Administrative - Formal	02-2020-3100	EPA	Virgin Islands Water and Power Authority (VIWAPA)	09/17/2020	1	09/17/2020	$0	$0	–	$0	$50,000

SDWA (Safe Drinking Water Act) Violations and Enforcement Actions (5 Years)

Violations											Enforcement Actions			
Source ID	Noncompliance Period	Violation ID	Federal Rule	Contaminant	Category	Description	Measured Value	State MCL (Maximum Contaminant Level)	Federal MCL (Maximum Contaminant Level)	Status	Date	Category	Description	Agency

No data records returned

Environmental Conditions

Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
210200020103	Northeastern St. Croix	CHRISTIANSTED H	No	No	Solids, total suspended | pH	Yes

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
VI	2022	VI-STC-26	Christiansted Harbor	Impaired - 303(d) Listed - With Restoration Plan	NUTRIENTS | ORGANIC ENRICHMENT/OXYGEN DEPLETION | PATHOGENS | PH/ACIDITY/CAUSTIC CONDITIONS | TURBIDITY	–	Not Supporting	–	Not Supporting	--

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)

No data records returned

Pollutants

Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

Air Pollutant Report TRI Pollution Prevention Report

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
00821VRGNSESTAT	2022	57	6	0	–	–	63	--
00821VRGNSESTAT	2021	51	8	0	–	–	59	--
00821VRGNSESTAT	2020	27	10	0	–	–	37	--
00821VRGNSESTAT	2019	103	14	0	–	–	117	--
00821VRGNSESTAT	2018	88	16	0	–	–	104	--
00821VRGNSESTAT	2017	181	43	0	–	–	224	--
00821VRGNSESTAT	2016	318	10	0	–	–	328	--
00821VRGNSESTAT	2015	385	4	0	–	–	389	--
00821VRGNSESTAT	2014	360	15	0	–	–	375	--
00821VRGNSESTAT	2013	376	–	0	–	–	376	--

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
1,2,4-Trimethylbenzene	7	8	7	14	14	34	30	32	33	30
Benzo[g,h,i]perylene	–	–	–	–	–	–	0	0	0	0
Dioxin and dioxin-like compounds (in grams)	0	0	0	0	0	0	0	0	0	0
Lead compounds	2	1	1	3	2	5	9	11	11	–
Naphthalene	22	21	11	41	35	73	124	149	144	150
Polycyclic aromatic compounds	25	22	12	44	38	78	136	165	154	166
n-Hexane	7	8	7	14	14	34	30	32	33	30

CWA (Clean Water Act) Discharge Monitoring Report (DMR) Pollutant Loadings

DMR and TRI Multi-Year Loading Report

NPDES ID	Description	2019	2020	2021	2022	2023
VI0000051	DMR Pollutant Loadings (lb/year)	825,179	491,098	328,342	213,348	122,387
VI0000051	DMR Pollutant Loadings - Load Over Limit (lb/year)	307,453	143,062	0	0	0
VI0000051	DMR Conventional Loadings (lb/year)	–	–	–	211,700	–
VI0000051	DMR Conventional Loadings - Load Over Limit (lb/year)	–	–	–	0	–
VI0000051	DMR Toxic-Weighted Loadings (lb-eq/year)	26.90	10.86	18.63	17.11	7.83
VI0000051	DMR Toxic-Weighted Loadings - Load Over Limit (lb-eq/year)	0	0	0	0	0

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJScreen home page.

Potential Environmental Justice Concerns

US Territory

EJScreen index information is unavailable for locations in American Samoa, Guam, Commonwealth of the Northern Mariana Islands (CNMI), and the US Virgin Islands.

Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. Census boundaries and

demographic data for U.S. Territories are based on the "2020 Island Areas Demographic Profiles" from the U.S. Census Bureau. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <https://epa.gov/help/reports/dfr-data-dictionary#demographic>.

General Statistics (U.S. Census)	
Total Persons	3,386
Population Density	1,892/sq.mi.
Housing Units in Area	2,642
Percent Minority Population	90%
Low Income Population	1,167 (34%)
Less than High School Population	466 (21.11%)

Geography	
Radius of Selected Area	1 mi.
Center Latitude	17.750141
Center Longitude	-64.714793

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	236 (7%)
Seniors 65 years and older	555 (16%)

Detailed Facility Report

Facility Summary

VIRGIN ISLANDS WATER & POWER AUTHORITY ESTATE RICHMOND GENERATING STATION

1 PENITENTIARY LANE, CHRISTIANSTED, VI 00821

FRS (Facility Registry Service) ID: 110000602866

EPA Region: 02

Latitude: 17.750141

Longitude: -64.714793

Locational Data Source: FRS

Industries: Heavy and Civil Engineering Construction

Indian Country: N

Enforcement and Compliance Summary

Statute	CAA
Compliance Monitoring Activities (5 years)	2
Date of Last Compliance Monitoring Activity	09/15/2022
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Statute	CWA
Compliance Monitoring Activities (5 years)	5
Date of Last Compliance Monitoring Activity	09/01/2023
Compliance Status	Significant/Category I Noncompliance
Qtrs in Noncompliance (of 12)	12
Qtrs with Significant Violation	9
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	1
Penalties from Formal Enforcement Actions (5 years)	$0
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Statute	EPCRA
Compliance Monitoring Activities (5 years)	–
Date of Last Compliance Monitoring Activity	–
Compliance Status	–
Qtrs in Noncompliance (of 12)	–
Qtrs with Significant Violation	–
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Statute	RCRA
Compliance Monitoring Activities (5 years)	–
Date of Last Compliance Monitoring Activity	03/11/2015
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Statute	SDWA
Compliance Monitoring Activities (5 years)	1
Date of Last Compliance Monitoring Activity	09/22/2023
Compliance Status	No Violation Identified
Qtrs in Noncompliance (of 12)	0
Qtrs with Significant Violation	0
Informal Enforcement Actions (5 years)	–
Formal Enforcement Actions (5 years)	–
Penalties from Formal Enforcement Actions (5 years)	–
EPA Cases (5 years)	–
Penalties from EPA Cases (5 years)	--

Regulatory Information

Clean Air Act (CAA): Operating Major (VI0000007800100001)

Clean Water Act (CWA): Non-Major, Permit Terminated; Compliance Tracking Off (VIGSA0093), Major, Permit Expired (VI0000051)

Resource Conservation and Recovery Act (RCRA): Active SQG, (VID980301592)

Safe Drinking Water Act (SDWA): OWNER: State government, SOURCE: Surface water, TYPE: Community water system Permit Inactive - 1992-09-01 (VI0000417), OWNER: State government, PRIMARY SERVICE AREA DESCRIPTION: Wholesaler of

Other Regulatory Reports

Air Emissions Inventory (EIS): 7439311

Greenhouse Gas Emissions (eGGRT): 1008001

Toxic Releases (TRI): 00821VRGNSESTAT

Compliance and Emissions Data Reporting Interface (CEDRI): No Information

Water, SOURCE: Surface water, TYPE: Community water system Permit Active (VI0000097)

Go To Enforcement/Compliance Details
Known Data Problems <https://epa.gov/resources/echo-data/known-data-problems>

Facility/System Characteristics

Facility/System Characteristics

System	Statute	Identifier	Universe	Status	Areas	Permit Expiration Date	Indian Country	Latitude	Longitude
FRS		110000602866					N	17.750141	-64.714793
ICIS		600007765					N	17.751639	-64.714865
ICIS		32400					N	17.751639	-64.714865
ICIS		33428					N	17.751639	-64.714865
ICIS		7733002					N	17.751639	-64.714865
ICIS		32401					N	17.751639	-64.714865
ICIS		2600027758					N	17.752778	-64.713889
ICIS-Air	CAA	VI0000007800100001	Major Emissions	Operating	CAANSPS, CAANSR, CAAPSD, CAASIP, CAATVP		N	17.751639	-64.714865
EIS	CAA	7439311					N	17.75277	-64.71389
GHGRP	CAA	1008001	Direct Emitter	Reporting Year 2022: Emitter - Reporting and meeting Verification requirements.	General Stationary Fuel Combustion		N		
ICIS-NPDES	CWA	VIGSA0093	Non-Major: General Permit Covered Facility	Terminated; Compliance Tracking Off		12/01/2017	N	17.7505833	-64.7156944
ICIS-NPDES	CWA	VI0000051	Major: NPDES Individual Permit	Expired		09/30/2020	N	17.751944	-64.715833
TRI	EP313	00821VRGNSESTAT	Toxics Release Inventory	Last Reported for 2022			N	17.749667	-64.714452
RCRAInfo	RCRA	VID980301592	SQG	Active (H)			N	17.757815	-64.650111
SDWIS	SDWA	VI0000417	OWNER: State government, SOURCE: Surface water, TYPE: Community water system	Inactive - 1992-09-01	Population Served: 150		N		
SDWIS	SDWA	VI0000097	OWNER: State government, PRIMARY SERVICE AREA DESCRIPTION: Wholesaler of Water, SOURCE: Surface water, TYPE: Community water system	Active	Population Served: 35000		N		

Facility Address

System	Statute	Identifier	Facility Name	Facility Address	Facility County
FRS		110000602866	VIRGIN ISLANDS WATER & POWER AUTHORITY ESTATE RICHMOND GENERATING STATION	1 PENITENTIARY LANE, CHRISTIANSTED, VI 00821	St. Croix Island
ICIS		600007765	VI WATER AND POWER AUTHORITY	RICHMOND ESTATE, CHRISTIANSTED, VI 00821	
ICIS		32400	VIRGIN ISLANDS WATER & POWER AUTH	CHRISTIANSTED, ST CROIX, VI 00820	
ICIS		33428	VIRGIN ISLANDS WATER & POWER AUTHORITY	ESTATE RICHMOND, SAINT CROIX, VI 00821	
ICIS		7733002	VI WATER AND POWER AUTHORITY	RICHMOND FACILITY, CHRISTIANSTED, VI 00820	
ICIS		32401	VI WATER AND POWER AUTHORITY	CHRISTIANSTED HARBOR E RICHMON, ST CROIX, VI 00820	
ICIS		2600027758	ESTATE RICHMOND GENERATING PLANT	ESTATE RICHMOND, CHRISTIANSTED, ST. CROIX, VI 00821	St. Croix Island
ICIS-Air	CAA	VI0000007800100001	VI WATER & POWER AUTHORITY (ST CROIX)	ESTATE RICHMOND, ST. CROIX ISLAND, VI 00820	St. Croix Island
EIS	CAA	7439311	VIRGIN ISLANDS WATER & POWER AUTHORITY	ESTATE RICHMOND, CHRISTIANSTED, VI 00821	St. Croix Island
GHGRP	CAA	1008001	VI WATER AND POWER AUTHORITY, Richmond Plant	1 Penitentiary Lane, CHRISTIANSTED, VI 00820	St. Croix Island
ICIS-NPDES	CWA	VIGSA0093	RICHMOND POWER PLANT LPG CONVERSION PROJECT	ROUTE 752 ESTATE RICHMOND, ST. CROIX, VI 00821	
ICIS-NPDES	CWA	VI0000051	V.I. WATER & POWER AUTHORITY	ESTATE RICHMOND, ST. CROIX, VI 00821	St. Croix Island
TRI	EP313	00821VRGNSESTAT	VIRGIN ISLANDS WATER & POWER AUTHORITY	ESTATE RICHMOND, CHRISTIANSTED, VI 00821	St. Croix Island
RCRAInfo	RCRA	VID980301592	VIRGIN ISLANDS WATER AND POWER AUTHORITY ESTATE RICHMOND POWER PLANT	1 & 2 PENETENTIARY LAND, CHRISTIANSTED, VI 00820	St. Croix Island
SDWIS	SDWA	VI0000417	V.I. WATER & POWER STX (PLANT)	VI	
SDWIS	SDWA	VI0000097	WATER AND POWER AUTHORITY-STX	VI	

Facility SIC (Standard Industrial Classification) Codes

System	Identifier	SIC Code	SIC Description
ICIS-Air	VI0000007800100001	4911	Electric Services
ICIS-NPDES	VI0000051	4911	Electric Services
ICIS-NPDES	VIGSA0093	1541	Industrial Buildings And Warehouses

Facility NAICS (North American Industry Classification System) Codes

System	Identifier	NAICS Code	NAICS Description
TRI	00821VRGNSESTAT	221112	Fossil Fuel Electric Power Generation
TRI	00821VRGNSESTAT	221119	Other Electric Power Generation
GHGRP	1008001	221112	Fossil Fuel Electric Power Generation

Facility Industrial Effluent Guidelines

Identifier	Effluent Guideline (40 CFR Part)	Effluent Guideline Description
VI0000051	423	Steam electric power generating point source category

System	Identifier	NAICS Code	NAICS Description
EIS	7439311	221112	Fossil Fuel Electric Power Generation
ICIS-Air	VI0000007800100001	221112	Fossil Fuel Electric Power Generation
RCRAInfo	VID980301592	23711	Water and Sewer Line and Related Structures Construction
RCRAInfo	VID980301592	23713	Power and Communication Line and Related Structures Construction
RCRAInfo	VID980301592	23799	Other Heavy and Civil Engineering Construction
RCRAInfo	VID980301592	42471	Petroleum Bulk Stations and Terminals

Facility Tribe Information

Reservation Name	Tribe Name	EPA Tribal ID	Distance to Tribe (miles)

No data records returned

Enforcement and Compliance

RCRA (Hazardous Waste (Resource Conservation and Recovery Act) Compliance Pipeline (Compliance Monitoring >> Violations >> Enforcement Actions) (10 Years)

This table shows how violations relate to compliance monitoring (CM) activities and enforcement. Currently available for RCRA only. Full CM history available below.

No data records returned

There are no relationships to display in the RCRA Compliance Pipeline table for this facility. Scroll down to view compliance monitoring history.

Compliance Monitoring History

Last 5 Years

Statute	Source ID	System	Activity Type	Compliance Monitoring Type	Lead Agency	Date	Finding (if applicable)
CAA	VI0000007800100001	ICIS-Air	Inspection/Evaluation	FCE On-Site	EPA	09/15/2022	
CAA	VI0000007800100001	ICIS-Air	Inspection/Evaluation	FCE On-Site	EPA	10/29/2020	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program - Evaluation	EPA	09/01/2023	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program - Evaluation	State	05/03/2022	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program - Sampling	State	03/04/2020	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program, Industrial Stormwater - Evaluation	EPA	11/08/2019	
CWA	VI0000051	ICIS-NPDES	Inspection/Evaluation	Base Program - Sampling	State	09/05/2019	
SDWA	VI0000097	ICIS	Inspection/Evaluation	On Site Visit	EPA	09/22/2023	

Entries in italics are not included in ECHO's Compliance Monitoring Activity counts because they are not compliance monitoring strategy <https://www.epa.gov/compliance/compliance-monitoring-programs> *activities or because they are not counted as inspections within EPA's Annual Results* <https://www.epa.gov/enforcement/enforcement-data-and-results>.

SDWA (Safe Drinking Water Act) Sanitary Survey Results (5 Years)

Source ID	Date	Type	Agency	Data Verification	Distribution	Management Operation	Finished Water Storage	Operator Compliance	Other Evaluation	Pumps	Security	Source	Financial	Treatment

No data records returned

Sanitary survey result codes:

S = Significant Deficiencies
M = Minor Deficiencies
R = Recommendations Made
N = No Deficiencies or Recommendations
X = Not Evaluated
Z = Not Applicable
D = Sanitary Defect
-- = Not Reported to EPA

Compliance Summary Data

Statute	Source ID	Current SNC (Significant Noncompliance)/HPV (High Priority Violation)	Current As Of	Qtrs with NC (Noncompliance) (of 12)	Data Last Refreshed
CAA	VI0000007800100001	No	06/01/2024	0	05/31/2024
CWA	VIGSA0093	No	12/31/2023	0	05/31/2024
CWA	VI0000051	Yes	12/31/2023	12	05/31/2024
RCRA	VID980301592	No	06/01/2024	0	05/31/2024
SDWA	VI0000417	No	12/31/2023	0	04/10/2024
SDWA	VI0000097	No	12/31/2023	0	04/10/2024

Three-Year Compliance History by Quarter

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
CAA (Source ID: VI0000007800100001)		07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	HPV History												

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
	Violation Type	Agency	Programs	Pollutants												

Statute	Program/Pollutant/Violation Type				QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8
	CWA (Source ID: VIGSA0093)				**01/01-03/31/21**	**04/01-06/30/21**	**07/01-09/30/21**	**10/01-12/31/21**	**01/01-03/31/22**	**04/01-06/30/22**	**07/01-09/30/22**	**10/01-12/31/22**
	Facility-Level Status				Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit	Terminated Permit
	Quarterly Noncompliance Report History											
	CWA (Source ID: VI0000051)				**01/01-03/31/21**	**04/01-06/30/21**	**07/01-09/30/21**	**10/01-12/31/21**	**01/01-03/31/22**	**04/01-06/30/22**	**07/01-09/30/22**	**10/01-12/31/22**
	Facility-Level Status				Violation Identified	Violation Identified	Violation Identified	Significant/Category I Noncompliance	Significant/Category I Noncompliance	Significant/Category I Noncompliance	Significant/Category I Noncompliance	Significant/Category I Noncompliance
	Quarterly Noncompliance Report History				Reportable Noncompliance	Reportable Noncompliance	Reportable Noncompliance	Effluent - Non-monthly Average Limit	Compliance/Permit Schedule - Violations	Compliance/Permit Schedule - Violations	Compliance/Permit Schedule - Violations	Compliance/Permit Schedule - Violations
	Pollutant	**Disch Point**	**Mon Loc**	**Freq**								
CWA	pH <effluent-charts#vi0000051/00400> [redacted] <https://epa.gov/effluent-charts#vi0000051/00400>	001 - A	Effluent Gross	NMth								
CWA	Iron, total [as Fe] <effluent-charts#vi0000051/01045> [redacted] <https://epa.gov/effluent-charts#vi0000051/01045>	002 - A	Effluent Gross	NMth			**50%**	**101%**	**67%**	**1080%**		**84%**
CWA	Oil & Grease <effluent-charts#vi0000051/00556> [redacted] <https://epa.gov/effluent-charts#vi0000051/00556>	002 - A	Effluent Gross	Mthly			23%					
CWA	Oil & Grease <effluent-charts#vi0000051/00556> [redacted] <https://epa.gov/effluent-charts#vi0000051/00556>	002 - A	Effluent Gross	NMth			84%					
CWA	Solids, total suspended <effluent-charts#vi0000051/00530> [redacted] <https://epa.gov/effluent-charts#vi0000051/00530>	002 - A	Effluent Gross	NMth			20%				52%	
	Single Event Violations			**Agency**								
CWA	Effluent Violations - Failed Toxicity Test			State	**07/19/2016-07/20/2016**							
CWA	Effluent Violations - Numeric effluent violation			EPA	**11/08/2019**	→	→	→	→	→	→	→
CWA	Management Practice Violations - Best Management Practice Deficiencies			EPA	**11/08/2019**	→	→	→	→	→	→	→
	Compliance Schedule Violations			**Case No.**								
CWA	Achieve Final Compliance With All Obligations Under This order			02-2020-3100				**11/17/2021**	→	→	→	→
	Late or Missing Discharge Monitoring Report (DMR) Measurements											
	Counts of Late DMR Measurements											

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8
	Counts of Missing DMR Measurements	1	1	1	1	3	1	1	1

Statute	Program/Pollutant/Violation Type	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12+
RCRA (Source ID: VID980301592)		07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24	04/01-06/30/24
	Facility-Level Status	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified	No Violation Identified
	Violation Agency												

Statute	Violation Type/Category	QTR 1	QTR 2	QTR 3	QTR 4	QTR 5	QTR 6	QTR 7	QTR 8	QTR 9	QTR 10	QTR 11	QTR 12	QTR 13*
SDWA (Source ID: VI0000097)		01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	No Violation	In Progress
	Category Violation Type													
SDWA (Source ID: VI0000417)		01/01-03/31/21	04/01-06/30/21	07/01-09/30/21	10/01-12/31/21	01/01-03/31/22	04/01-06/30/22	07/01-09/30/22	10/01-12/31/22	01/01-03/31/23	04/01-06/30/23	07/01-09/30/23	10/01-12/31/23	01/01-03/31/24
	Facility-Level Status	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive	Inactive
	Category Violation Type													

*Quarter 13 data is voluntarily entered and/or incomplete, and may not form a complete picture for that quarter. Read more <https://epa.gov/help/reports/dfr-data-dictionary#sdwacomp>

SDWA Compliance Data Last Reported: 12/31/2023

Informal Enforcement Actions

Last 5 Years

Statute	System	Source ID	Type of Action	Lead Agency	Date

No data records returned

Entries in italics are not counted as "informal enforcement actions" in EPA policies pertaining to enforcement response tools.

Formal Enforcement Actions

Last 5 Years

Statute	System	Law/ Section	Source ID	Type of Action	Case No.	Lead Agency	Case Name	Issued/ Filed Date	Settlements/ Actions	Settlement/ Action Date	Federal Penalty Assessed	State/ Local Penalty Assessed	Penalty Amount Collected	SEP Value	Comp Action Cost
CWA	ICIS-NPDES	301/402	NPDES/VI0000051	Administrative - Formal	02-2020-3100	EPA	Virgin Islands Water and Power Authority (VIWAPA)	09/17/2020	1	09/17/2020	$0	$0	–	$0	$50,000

SDWA (Safe Drinking Water Act) Violations and Enforcement Actions (5 Years)

Violations											Enforcement Actions			
Source ID	Noncompliance Period	Violation ID	Federal Rule	Contaminant	Category	Description	Measured Value	State MCL (Maximum Contaminant Level)	Federal MCL (Maximum Contaminant Level)	Status	Date	Category	Description	Agency

No data records returned

Environmental Conditions

Watersheds

12-Digit WBD (Watershed Boundary Dataset) HUC (RAD (Reach Address Database))	WBD (Watershed Boundary Dataset) Subwatershed Name (RAD (Reach Address Database))	State Water Body Name (ICIS (Integrated Compliance Information System))	Beach Closures Within Last Year	Beach Closures Within Last Two Years	Pollutants Potentially Related to Impairment	Watershed with ESA (Endangered Species Act)-listed Aquatic Species?
210200020103	Northeastern St. Croix	CHRISTIANSTED H	No	No	Solids, total suspended | pH	Yes

Assessed Waters From Latest State Submission (ATTAINS)

State	Report Cycle	Assessment Unit ID	Assessment Unit Name	Water Condition	Cause Groups Impaired	Drinking Water Use	Ecological Use	Fish Consumption Use	Recreation Use	Other Use
VI	2022	VI-STC-26	Christiansted Harbor	Impaired - 303(d) Listed - With Restoration Plan	NUTRIENTS | ORGANIC ENRICHMENT/OXYGEN DEPLETION | PATHOGENS | PH/ACIDITY/CAUSTIC CONDITIONS | TURBIDITY	–	Not Supporting	–	Not Supporting	--

Air Quality Nonattainment Areas

Pollutant	Within Nonattainment Status Area?	Nonattainment Status Applicable Standard(s)	Within Maintenance Status Area?	Maintenance Status Applicable Standard(s)

No data records returned

Pollutants

Toxics Release Inventory History of Reported Chemicals Released or Transferred in Pounds per Year at Site

Air Pollutant Report TRI Pollution Prevention Report

TRI Facility ID	Year	Air Emissions	Surface Water Discharges	Off-Site Transfers to POTWs (Publicly Owned Treatment Works)	Underground Injections	Disposal to Land	Total On-Site Releases	Total Off-Site Transfers
00821VRGNSESTAT	2022	57	6	0	–	–	63	--
00821VRGNSESTAT	2021	51	8	0	–	–	59	--
00821VRGNSESTAT	2020	27	10	0	–	–	37	--
00821VRGNSESTAT	2019	103	14	0	–	–	117	--
00821VRGNSESTAT	2018	88	16	0	–	–	104	--
00821VRGNSESTAT	2017	181	43	0	–	–	224	--
00821VRGNSESTAT	2016	318	10	0	–	–	328	--
00821VRGNSESTAT	2015	385	4	0	–	–	389	--
00821VRGNSESTAT	2014	360	15	0	–	–	375	--
00821VRGNSESTAT	2013	376	–	0	–	–	376	--

Toxics Release Inventory Total Releases and Transfers in Pounds by Chemical and Year

Chemical Name	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
1,2,4-Trimethylbenzene	7	8	7	14	14	34	30	32	33	30
Benzo[g,h,i]perylene	–	–	–	–	–	–	0	0	0	0
Dioxin and dioxin-like compounds (in grams)	0	0	0	0	0	0	0	0	0	0
Lead compounds	2	1	1	3	2	5	9	11	11	–
Naphthalene	22	21	11	41	35	73	124	149	144	150
Polycyclic aromatic compounds	25	22	12	44	38	78	136	165	154	166
n-Hexane	7	8	7	14	14	34	30	32	33	30

CWA (Clean Water Act) Discharge Monitoring Report (DMR) Pollutant Loadings

DMR and TRI Multi-Year Loading Report

NPDES ID	Description	2019	2020	2021	2022	2023
VI0000051	DMR Pollutant Loadings (lb/year)	825,179	491,098	328,342	213,348	122,387
VI0000051	DMR Pollutant Loadings - Load Over Limit (lb/year)	307,453	143,062	0	0	0
VI0000051	DMR Conventional Loadings (lb/year)	–	–	–	211,700	–
VI0000051	DMR Conventional Loadings - Load Over Limit (lb/year)	–	–	–	0	–
VI0000051	DMR Toxic-Weighted Loadings (lb-eq/year)	26.90	10.86	18.63	17.11	7.83
VI0000051	DMR Toxic-Weighted Loadings - Load Over Limit (lb-eq/year)	0	0	0	0	0

Community

Environmental Justice

This section shows indexes from EJScreen, EPA's screening tool for environmental justice (EJ) concerns. EPA uses these indexes to identify geographic areas that may warrant further consideration or analysis for potential EJ concerns. Use of these indexes does not designate an area as an "EJ community" or "EJ facility." EJScreen provides screening level indicators, not a determination of the existence or absence of EJ concerns. For more information, see the EJScreen home page.

Potential Environmental Justice Concerns

US Territory

EJScreen index information is unavailable for locations in American Samoa, Guam, Commonwealth of the Northern Mariana Islands (CNMI), and the US Virgin Islands.

Demographic Profile of Surrounding Area (1-Mile Radius)

This section provides demographic information regarding the community surrounding the facility. ECHO compliance data alone are not sufficient to determine whether violations at a particular facility had negative impacts on public health or the environment. Statistics are based upon the 2010 U.S. Census and 2017 - 2021 American Community Survey (ACS) 5-year Summary and are accurate to the extent that the facility latitude and longitude listed below are correct. Census boundaries and

demographic data for U.S. Territories are based on the "2020 Island Areas Demographic Profiles" from the U.S. Census Bureau. EPA's spatial processing methodology considers the overlap between the selected radii and the census blocks (for U.S. Census demographics) and census block groups (for ACS demographics) in determining the demographics surrounding the facility. For more detail about this methodology, see the DFR Data Dictionary <https://epa.gov/help/reports/dfr-data-dictionary#demographic>.

General Statistics (U.S. Census)	
Total Persons	3,386
Population Density	1,892/sq.mi.
Housing Units in Area	2,642
Percent Minority Population	90%
Low Income Population	1,167 (34%)
Less than High School Population	466 (21.11%)

Geography	
Radius of Selected Area	1 mi.
Center Latitude	17.750141
Center Longitude	-64.714793

Age Breakdown (U.S. Census) - Persons (%)	
Children 5 years and younger	236 (7%)
Seniors 65 years and older	555 (16%)

Figure 8. EPA ECHO Report VIWAPA Richmond Facility

Species Directory

All Species | ESA Threatened & Endangered | Marine Mammals | Sustainable Seafood

ESA Threatened & Endangered

NOAA Fisheries has jurisdiction over 165 endangered and threatened marine species (80 endangered; 85 threatened), including 66 foreign species (40 endangered; 26 threatened).

Additional species are currently under review or have been proposed for Endangered Species Act listing: 2 petitioned species awaiting a 90-day finding, 15 candidate species for ESA listing, 1 proposed species for ESA listing.

In the table below, the Region column shows if the species can be found in a NOAA Fisheries region. If the species occurs only in areas beyond the U.S. exclusive economic zone and territorial waters, the region is labeled as Foreign.

Species Name

Species Category

All

Protected Status

All

Region

Southeast

Display

25 Display All

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Atlantic Sturgeon *Acipenser oxyrinchus oxyrinchus*	**SPECIES CATEGORY** Fish - Protected Fish	Carolina DPS	ESA Endangered	2012	Under Development	Final	New England/Mid-Atlantic Southeast
		Chesapeake Bay DPS	ESA Endangered	2012	Under Development	Final	New England/Mid-Atlantic Southeast
		New York Bight DPS	ESA Endangered	2012	Under Development	Final	New England/Mid-Atlantic Southeast
		South Atlantic DPS	ESA Endangered	2012	Under Development	Final	New England/Mid-Atlantic

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
							Southeast
		Gulf of Maine DPS	ESA Threatened	2012	Under Development	Final	New England/Mid-Atlantic Southeast
Blue Whale *Balaenoptera musculus*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	1970	Final	---	Alaska New England/Mid-Atlantic Pacific Islands Southeast West Coast
Boulder Star Coral *Orbicella franksi*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2014	Under Development	Final	Southeast
Elkhorn Coral *Acropora palmata*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2006	Final	Final	Southeast
False Killer Whale *Pseudorca crassidens*	**SPECIES CATEGORY** Whales **SPECIES CATEGORY** Dolphins & Porpoises	Main Hawaiian Islands Insular DPS	ESA Endangered	2012	Final	Final	Pacific Islands

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Fin Whale *Balaenoptera physalus*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	1970	Final	---	Alaska New England/Mid-Atlantic Pacific Islands Southeast West Coast
Giant Manta Ray *Mobula birostris*	**SPECIES CATEGORY** Fish - Protected Fish	Species	ESA Threatened	2018	Under Development	Not Prudent	New England/Mid-Atlantic Pacific Islands Southeast
Green Turtle *Chelonia mydas*	**SPECIES CATEGORY** Sea Turtles	Central South Pacific DPS	ESA Endangered	2016	Final	---	Pacific Islands
		Central West Pacific DPS	ESA Endangered	2016	Final	---	Pacific Islands
		Mediterranean DPS	ESA Endangered - Foreign	2016	---	---	Foreign
		Central North Pacific DPS	ESA Threatened	2016	Final	---	Pacific Islands
		East Pacific DPS	ESA Threatened	2016	Final	---	West Coast
		North Atlantic DPS	ESA Threatened	2016	Final	Final	New England/Mid-Atlantic Southeast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
		South Atlantic DPS	ESA Threatened	2016	Final	---	Southeast
		East Indian-West Pacific DPS	ESA Threatened - Foreign	2016	---	---	Foreign
		North Indian DPS	ESA Threatened - Foreign	2016	---	---	Foreign
		Southwest Indian DPS	ESA Threatened - Foreign	2016	---	---	Foreign
		Southwest Pacific DPS	ESA Threatened - Foreign	2016	---	---	Foreign
Gulf Sturgeon *Acipenser oxyrinchus desotoi*	**SPECIES CATEGORY** Fish - Protected Fish	Species	ESA Threatened	1991	Final	Final	Southeast
Hawksbill Turtle *Eretmochelys imbricata*	**SPECIES CATEGORY** Sea Turtles	Species	ESA Endangered	1970	Final	Final	Pacific Islands Southeast
Humpback Whale *Megaptera novaeangliae*	**SPECIES CATEGORY** Whales	Central America DPS	ESA Endangered	2016	Under Development	Final	West Coast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
		Western North Pacific DPS	ESA Endangered	2016	Under Development	Final	Alaska
		Arabian Sea DPS	ESA Endangered - Foreign	2016	Final	---	Foreign
		Cape Verde Islands/Northwest Africa DPS	ESA Endangered - Foreign	2016	Final	---	Foreign
		Mexico DPS	ESA Threatened	2016	Under Development	Final	Alaska West Coast
Kemp's Ridley Turtle *Lepidochelys kempii*	**SPECIES CATEGORY** Sea Turtles	Species	ESA Endangered	1970	Final	---	New England/Mid-Atlantic Southeast
Killer Whale *Orcinus orca* **Also Known As** Orca	**SPECIES CATEGORY** Dolphins & Porpoises **SPECIES CATEGORY** Whales	Southern Resident DPS	ESA Endangered	2005	Final	Final	Alaska West Coast
Leatherback Turtle *Dermochelys coriacea*	**SPECIES CATEGORY** Sea Turtles	Species	ESA Endangered	1970	Final	Final (U.S. Caribbean) Final (U.S. West Coast)	New England/Mid-Atlantic Pacific Islands Southeast West Coast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Lobed Star Coral *Orbicella annularis*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2014	Under Development	Final	Southeast
Loggerhead Turtle *Caretta caretta*	**SPECIES CATEGORY** Sea Turtles	North Pacific Ocean DPS	ESA Endangered	2011	Final	No	Pacific Islands West Coast
		Mediterranean Sea DPS	ESA Endangered - Foreign	2011	---	---	Foreign
		Northeast Atlantic Ocean DPS	ESA Endangered - Foreign	2011	---	---	Foreign
		North Indian Ocean DPS	ESA Endangered - Foreign	2011	---	---	Foreign
		South Pacific Ocean DPS	ESA Endangered - Foreign	2011	---	---	Foreign
		Northwest Atlantic Ocean DPS	ESA Threatened	2011	Final	Final	New England/Mid-Atlantic Southeast
		South Atlantic Ocean DPS	ESA Threatened - Foreign	2011	---	---	Foreign
		Southeast Indo-Pacific	ESA Threatened	2011	---	---	Foreign

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
		Ocean DPS	- Foreign				
		Southwest Indian Ocean DPS	ESA Threatened - Foreign	2011	---	---	Foreign
Mountainous Star Coral *Orbicella faveolata*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2014	Under Development	Final	Southeast
Nassau Grouper *Epinephelus striatus*	**SPECIES CATEGORY** Fish - Protected Fish - Reef Fish	Species	ESA Threatened	2016	Under Development	Proposed	Southeast
North Atlantic Right Whale *Eubalaena glacialis*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	2008; 1970 (original)	Final	Final	New England/Mid-Atlantic Southeast
Oceanic Whitetip Shark *Carcharhinus longimanus*	**SPECIES CATEGORY** Fish - Highly Migratory Fish - Protected Fish - Sharks	Species	ESA Threatened	2018	Under Development	Not Prudent	New England/Mid-Atlantic Pacific Islands Southeast West Coast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Olive Ridley Turtle *Lepidochelys olivacea*	**SPECIES CATEGORY** Sea Turtles	Mexico's Pacific coast breeding populations	ESA Endangered	1978	Final	---	West Coast
		All other populations	ESA Threatened	---	---	---	Pacific Islands Southeast West Coast
Pillar Coral *Dendrogyra cylindrus*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Proposed - Endangered	---	---	---	Southeast
		Species	ESA Threatened	2014	Under Development	Final	Southeast
Queen Conch *Aliger gigas* **Also Known As** Strombus gigas, Lobatus gigas, Conch, Pink conch, Carrucho, Caracol reina	**SPECIES CATEGORY** Invertebrates - Protected Invertebrate - Wild-Caught Seafood	Species	ESA Threatened	2024	---	---	Southeast
Rice's Whale *Balaenoptera ricei*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	2019	---	---	Southeast
Rough Cactus Coral	**SPECIES CATEGORY** Invertebrates	Species	ESA Threatened	2014	Under Development	Final	Southeast

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Mycetophyllia ferox	- Corals						

Species Directory

All Species | ESA Threatened & Endangered | Marine Mammals | Sustainable Seafood

ESA Threatened & Endangered

NOAA Fisheries has jurisdiction over 165 endangered and threatened marine species (80 endangered; 85 threatened), including 66 foreign species (40 endangered; 26 threatened).

Additional species are currently under review or have been proposed for Endangered Species Act listing: 2 petitioned species awaiting a 90-day finding, 15 candidate species for ESA listing, 1 proposed species for ESA listing.

In the table below, the Region column shows if the species can be found in a NOAA Fisheries region. If the species occurs only in areas beyond the U.S. exclusive economic zone and territorial waters, the region is labeled as Foreign.

Species Name

Species Category

All

Protected Status

All

Region

Southeast

Display

25 Display All

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
Scalloped Hammerhead Shark *Sphyrna lewini*	**SPECIES CATEGORY** Fish - Highly Migratory Fish - Protected Fish - Sharks	Eastern Pacific DPS	ESA Endangered	2014	---	No	West Coast
		Eastern Atlantic DPS	ESA Endangered - Foreign	2014	---	---	Foreign
		Central & Southwest Atlantic DPS	ESA Threatened	2014	---	No	Southeast
		Indo-West Pacific DPS	ESA Threatened	2014	---	No	Pacific Islands
Sei Whale *Balaenoptera borealis*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	1970	Final	---	Alaska New England/Mid-Atlantic

Species Name ▼	Species Category	Listed Entity	Protected Status	Year Listed	Recovery Plan	Critical Habitat	Region
							Pacific Islands Southeast West Coast
Shortnose Sturgeon *Acipenser brevirostrum*	**SPECIES CATEGORY** Fish - Protected Fish	Species	ESA Endangered	1967	Final	---	New England/Mid-Atlantic Southeast
Smalltooth Sawfish *Pristis pectinata*	**SPECIES CATEGORY** Fish - Protected Fish	U.S. Population	ESA Endangered	2003	Final	Final	Southeast
		Non-U.S. Population	ESA Endangered - Foreign	2014	---	---	Foreign
Sperm Whale *Physeter macrocephalus*	**SPECIES CATEGORY** Whales	Species	ESA Endangered	1970	Final	---	Alaska New England/Mid-Atlantic Pacific Islands Southeast West Coast
Staghorn Coral *Acropora cervicornis*	**SPECIES CATEGORY** Invertebrates - Corals	Species	ESA Threatened	2006	Final	Final	Southeast

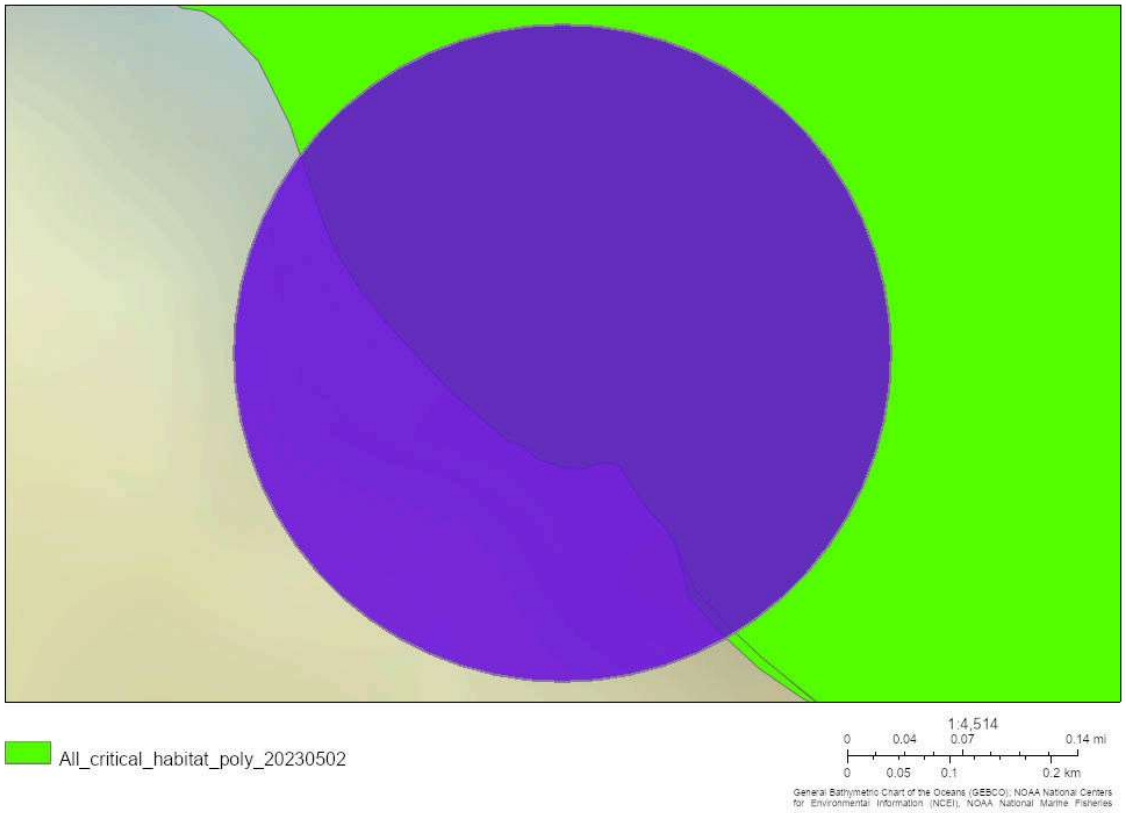
Figure 9. ESA listed species in the Southeast Region.

Critical Habitat Report

Area of Interest (AOI) Information

Area : 0.32 km²

Jun 8 2024 19:30:05 Bolivia Time



Summary

Name	Count	Area(km²)	Length(m)
All Critical Habitat Polyline	0	N/A	0
All Critical Habitat Polygon	7	1.32	N/A

All Critical Habitat Polygon

#	Scientific Name	Common Name	Listed Entity	Area(km²)
1	Acropora palmata	Coral, elkhorn	Coral, elkhorn	0.19
2	Acropora cervicornis	Coral, staghorn	Coral, staghorn	0.19
3	Orbicella franksi	Coral, boulder star	Coral, boulder star	0.19
4	Orbicella annularis	Coral, lobed star	Coral, lobed star	0.19
5	Orbicella faveolata	Coral, mountainous star	Coral, mountainous star	0.19
6	Dendrogyra cylindrus	Coral, pillar	Coral, pillar	0.19
7	Epinephelus striatus	Grouper, Nassau	Grouper, Nassau	0.19

Figure 10. NOAA's Critical Habitat Mapper

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Project information

NAME

LPG Aquisition St. Croix

LOCATION

St. Croix County, Virgin Islands

DESCRIPTION

Some(The acquisition of existing LPG infrastructure with no changes to the facility or operations.)

Local office

Caribbean Ecological Services Field Office

(939) 320-3135
(787) 851-7440
CARIBBEAN_ES@FWS.GOV

MAILING ADDRESS

Post Office Box 491
Boqueron, PR 00622-0491

PHYSICAL ADDRESS

Office Park I
State Road #2 Km 156.5, Suite 303}
Mayaguez, PR 00680

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
West Indian Manatee Trichechus manatus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4469	Threatened Marine mammal

Birds

NAME	STATUS
Roseate Tern Sterna dougallii dougallii No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2083	Threatened

Reptiles

NAME	STATUS
Green Sea Turtle Chelonia mydas There is **proposed** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6199	Threatened

Hawksbill Sea Turtle Eretmochelys imbricata — Endangered
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/3656

Leatherback Sea Turtle Dermochelys coriacea — Endangered
Wherever found
There is **final** critical habitat for this species. Your location does not overlap the critical habitat.
https://ecos.fws.gov/ecp/species/1493

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management

Figure 11. FWS iPaC Species List

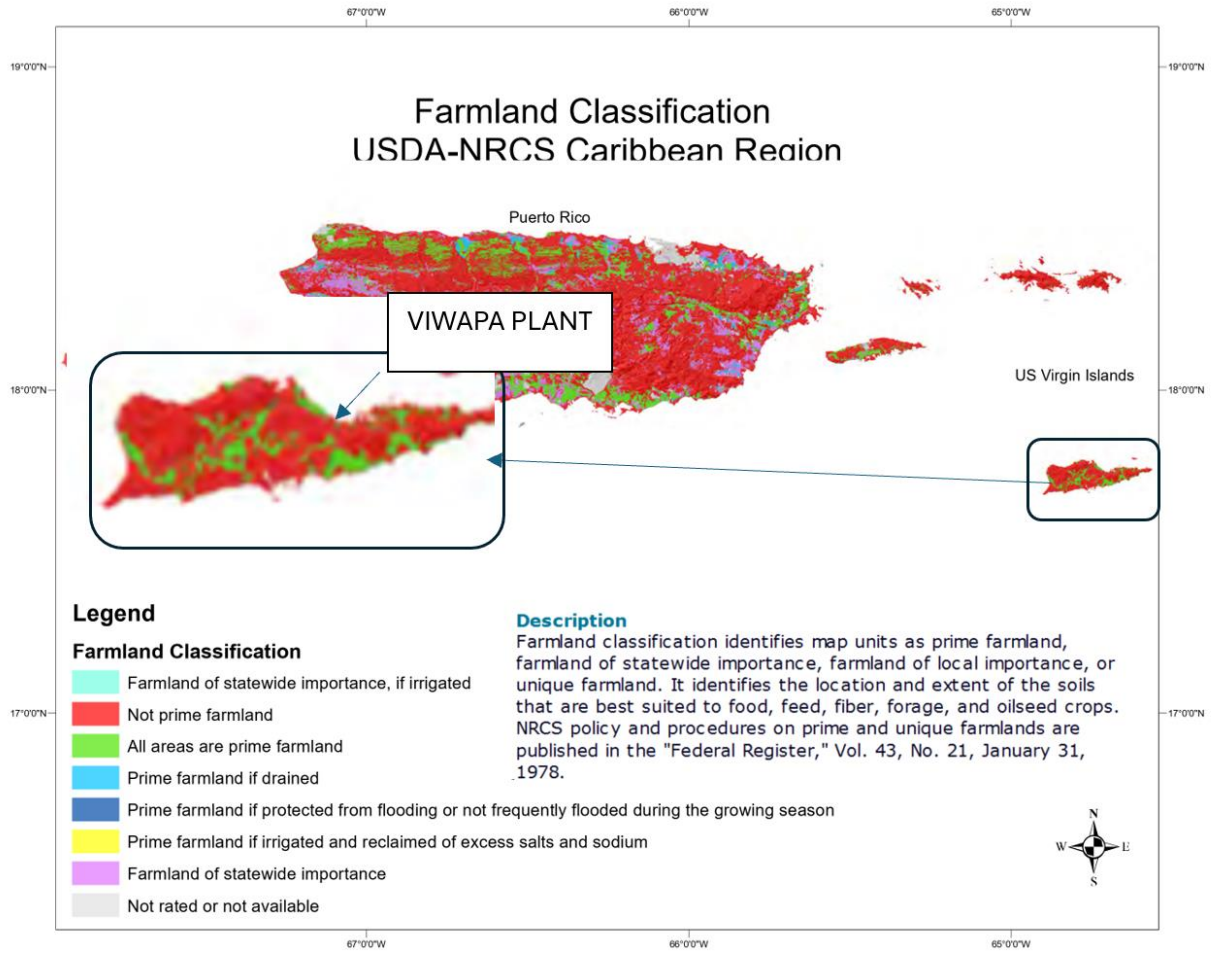


Figure 12. The USDA – NRCS Farmland Classification Map for Puerto Rico and the USVI. TheVIWAPA Plant is not on Prime Farm Land.

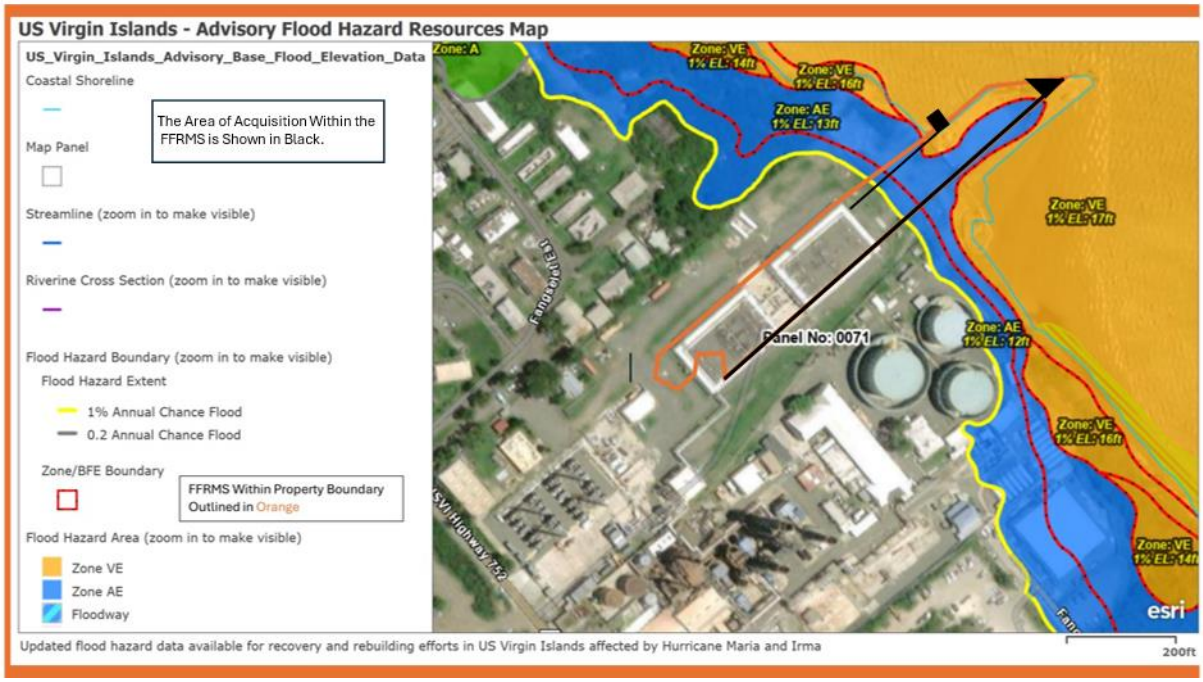


Figure 13. The LPG infrastructure being acquired is shown in black.

Early Notice and Public Review of a Proposed
Activity in a Federal Flood Risk Management Standard Designated Floodplain
May 23, 2024

To: All interested Agencies U.S. Army Corps of Engineers, Federal Emergency Management Agency Office of the Governor, Region II Environmental Protection Agency, National Oceanographic and Atmospheric Administration, U.S. Fish and Wildlife Service Department of Planning and Natural Resources, Territorial Emergency Management Agency, Department of Public Works, Economic Development Authority, Virgin Islands Port Authority, Groups, and Individuals

This is to give notice that the Virgin Island Housing Finance Authority (VIHFA) under their authority as Responsible Entity pursuant to 24 CFR Part 58.4 has determined that the following proposed action of the acquisition of the Liquid Propane Gas (LPG) infrastructure at the Richmond Power Plant in St. Christiansted, St. Croix under the U.S. Department of Housing and Urban Development Community Development Block Grant-Mitigation (CDBG-MIT) grant, Grant Number P-17-VI-78-HIM1 is located in the Federal Flood Risk Management Standard (FFRMS) floodplain and VIHFA will be identifying and evaluating practicable alternatives to the acquisition of the LPG infrastructure within the FFRMS floodplain and the potential impacts on the FFRMS floodplain as required by Executive Order 11988, as amended by Executive Order 13690, in accordance with HUD regulations at 24 CFR 55.20 in Subpart C Procedures for Making Determinations on Floodplain Management and Protection of Wetlands. The proposed project is located with the Virgin Islands Water and Power Authority's (VIWAPA) Richmond Power Plant. The Richmond Power Plant is located on Parcel Nos. 6 and 8 Penitentiary Land and Parcel 6A Reclaimed Land, in Christiansted, St. Croix **(** 17˚45.106'N Latitude and 64˚42.912W Longitude) (Figure 1). The power plant produces all of the public power and water for the island of St. Croix. The plant includes reverse osmosis water production plants, 5 fuel oil storage tanks, 2 waste oil tank, 4 gas turbines, a powerhouse, transformer storage, chemical storage, a spill cleanup warehouse, a temporary storage yard, office buildings, storage warehouses, a fuel pier with a combined discharge outfall, and a submerge seawater intake. The Liquid Propane Gas (LPG) infrastructure is located to the west of the main power plant. The LPG infrastructure is currently owned by Vitol LLC. CDBG-DR MIT funds are proposed for the acquisition of the LPG infrastructure including the fuel loading arms, LPG pipelines from the fuel dock to the LPG storage tanks, LPG pipelines from the storage tanks to the vaporizer, the fire suppression system, and the control system. The location of the Power Plant and the LPG infrastructure proposed to be acquired is functionally dependent on access to the navigable water. The LPG infrastructure is in place and in operation.

The acquisition of the infrastructure is critical to USVI's energy supply. The piers, infrastructure, and equipment (e.g., LPG system pumps, pipes, and fire suppression system) to be acquired, need to be in close proximity to the water to serve their purpose (i.e., offload and transport of LPG from cargo ships to storage tanks).

The Richmond Power facility is located on the north shore of St. Croix in Christiansted Harbor. The shoreline and offshore waters are within FEMA 100-year flood zones. The extent of the FFRMS floodplain is 3.5 acres as determined by the Freeboard Value Approach (FVA). The facility is a Critical Action as defined by 24 CFR 55.2(b)(3)(i) (the acquisition of facilities which

store highly volatile materials for a power generating plant). The FFRMS floodplain as determined by the FVA was determined to be 20 ft. An ABFE map that was used to define the base flood elevation for the freeboard value approach can be found here: http://fema.maps.arcgis.com/home/webmap/viewer.html?webmap=a92ce1763cb5416dafa01b84757a5af9 (Figure 2). The 3.5 acres of FFRMS floodplain includes areas of the existing fuel pier which extends into and contains areas of VE1% EL: 17ft along both sides of the pier, and around the end of the pier. The VE flood zone also extends along the shoreline to both the east and west of the pier that are within VE 1% EL:17ft where it has been determined that there is a 1% chance of coastal flooding with velocity (wave action) to elevation 17ft. The middle of the pier and just shoreward of the VE zone is an area of AE 1% EL: 13ft where the 1% coastal flooding has been determined to be 13ft. Shoreward of the AE 1% EL:13ft zone is a narrow band of AE 1% E:12ft where the 1% coastal flooding has been determined to be 12ft (Figure 3). Moving inland the site is within FEMA flood Zone X where 100-year coastal flooding is not expected. However, in order to address increasing hazards utilizing the FVA for critical actions, the FFRMS floodplain extends to 20ft of elevation. The fuel loading arms, part of the LPG pipelines from the fuel dock to the LPG storage tanks, and the fire suppression system, are within the VE and AE FEMA flood zones and part of the LPG pipelines from the fuel dock to the LPG storage tanks, the LPG storage bunkers and tanks, and part of the LPG pipelines from the storage tanks to the vaporizer are within the FFRMS floodplain (Figure 4).

The LPG infrastructure to be acquired is on 0.15 acres of the 3.5-acre FFRMs floodplain. The assets that will be acquired include the marine loading arm, piping (supply lines) from the dock to the tanks, vaporizing skids and power generating turbines as well as firefighting equipment. The occupied 0.15-acre floodplain is a highly altered coastline adjacent to an industrial plant and as such does not provide habitat for flora or fauna. The shoreline is highly altered and does not have any historic or cultural use and is not used for any recreational purposes, however it does provide coastal access. The site does allow for erosion control and has a water quality function as sheet flow passes across the graveled and grassed shoreline. The existing LPG infrastructure does not have a negative impact on the floodplain as the piping and loading arm and related mechanical equipment is all elevated above ground level and does not impede stormwater or runoff.

There are three primary purposes for this notice. First, people who may be affected by activities in the floodplain and those who have an interest in the protection of the natural environment should be given an opportunity to express their concerns and provide information about these areas. Commenters are encouraged to offer alternative sites outside of the floodplain, alternative methods to serve the same project purpose, and methods to minimize and mitigate project impacts on the [floodplain/wetland]. Second, an adequate public notice program can be an important public educational tool. The dissemination of information and request for public comment about floodplain can facilitate and enhance Federal efforts to reduce the risks and impacts associated with the occupancy and modification of these special areas. Third, as a matter of fairness, when the Federal government determines it will participate in actions taking place in floodplain, it must inform those who may be put at greater or continued risk.

Written comments must be received by VIHFA at the following address on or before on June 7, 2024, VIHFA Virgin Islands Housing Finance Authority, 3202 Demarara Plaza, Suite 200, St. Thomas, VI 00802-6447 and (340) 777-4432, Attention: Attention: Ms. Dayna Clendinen, Chief Disaster Recovery Officer, during the hours of 9:00 AM to 5:00 PM. Comments may also be submitted via email at [dclendinen@vihfa.gov].

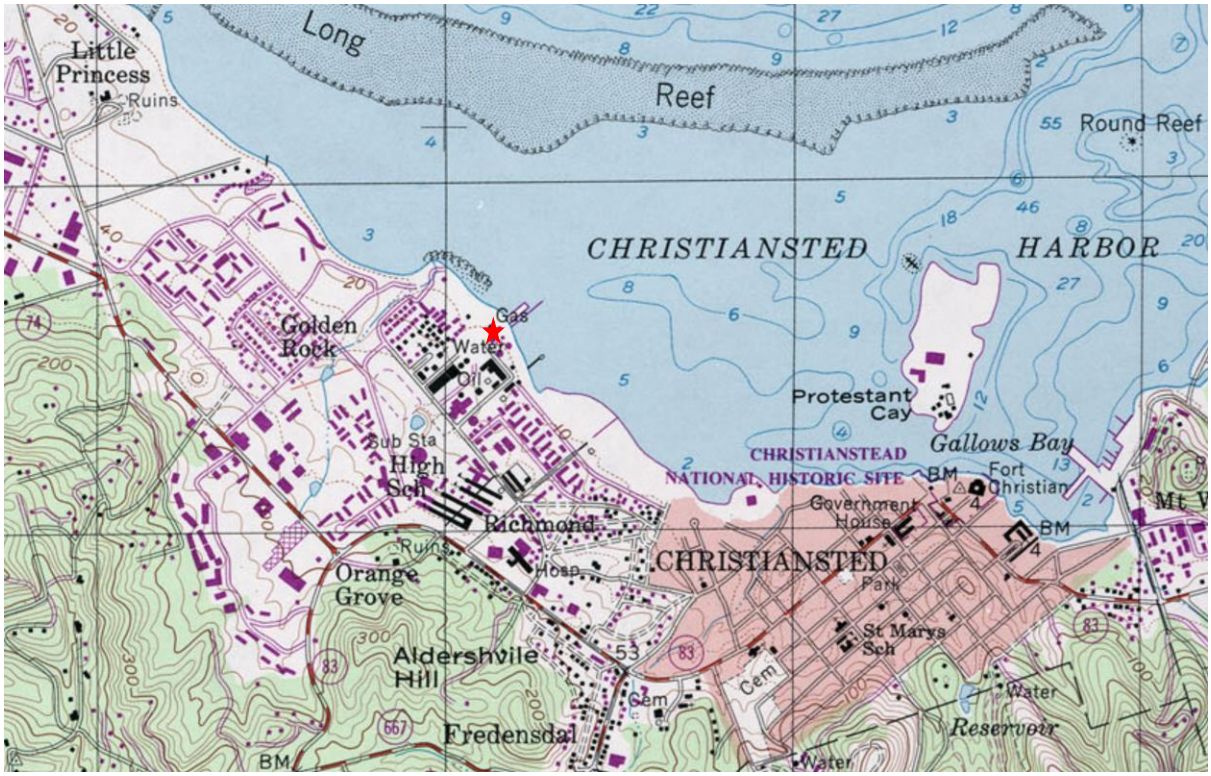


Figure 1. Christiansted Quadrangle Map, U.S. Virgin Islands 7.5 Minutes Series : Project Location shown as red star.

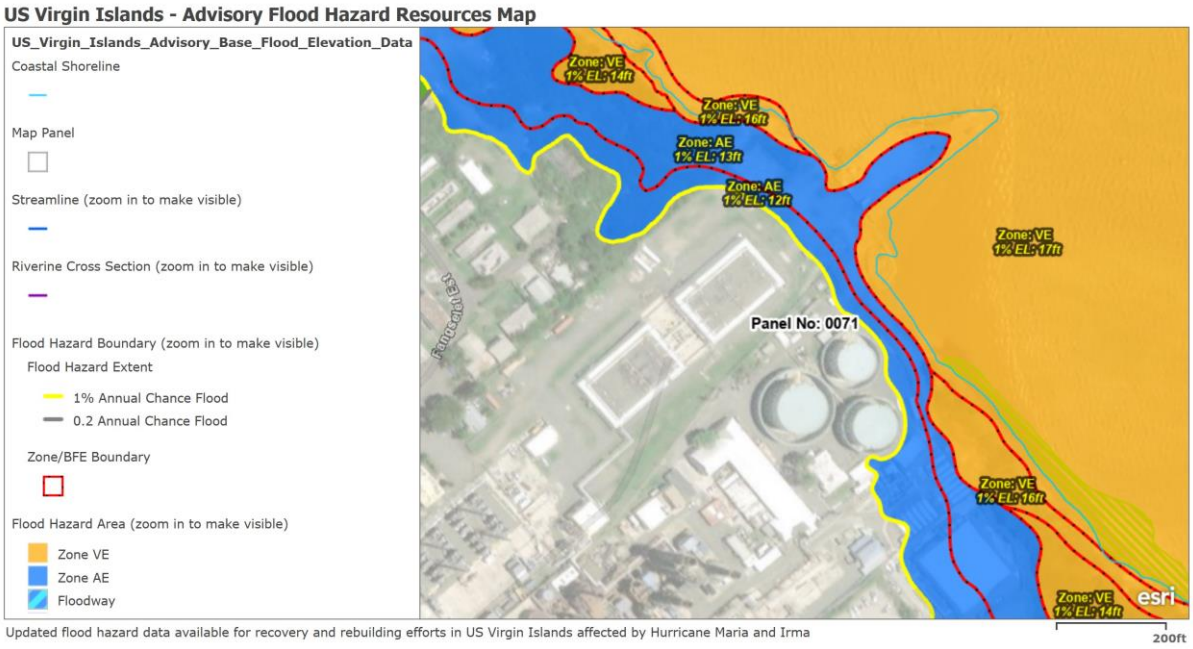


Figure 2. Advisory Base Flood Elevation map used to determine the base flood elevation for the freeboard value approach.

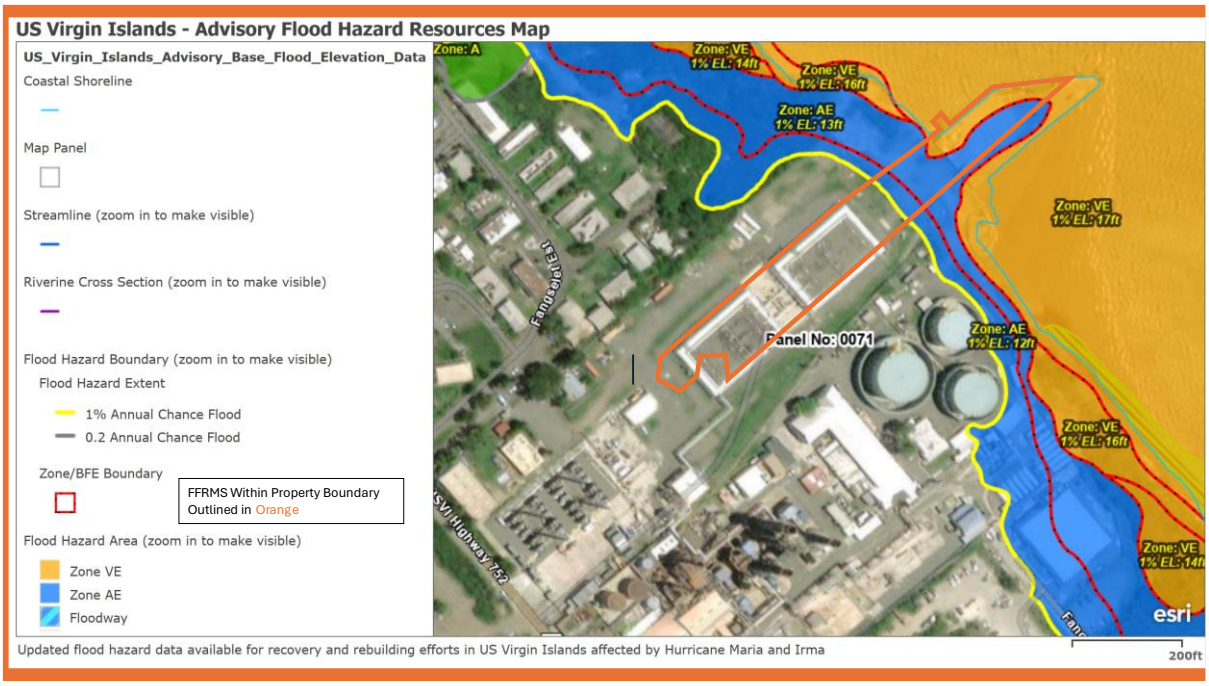


Figure 3. FEMA Flood Zone VE, Flood Zone AE, and Flood Zone X and FFRMS Floodplain within the VIWAPA Property containing the LPG Infrastructure.

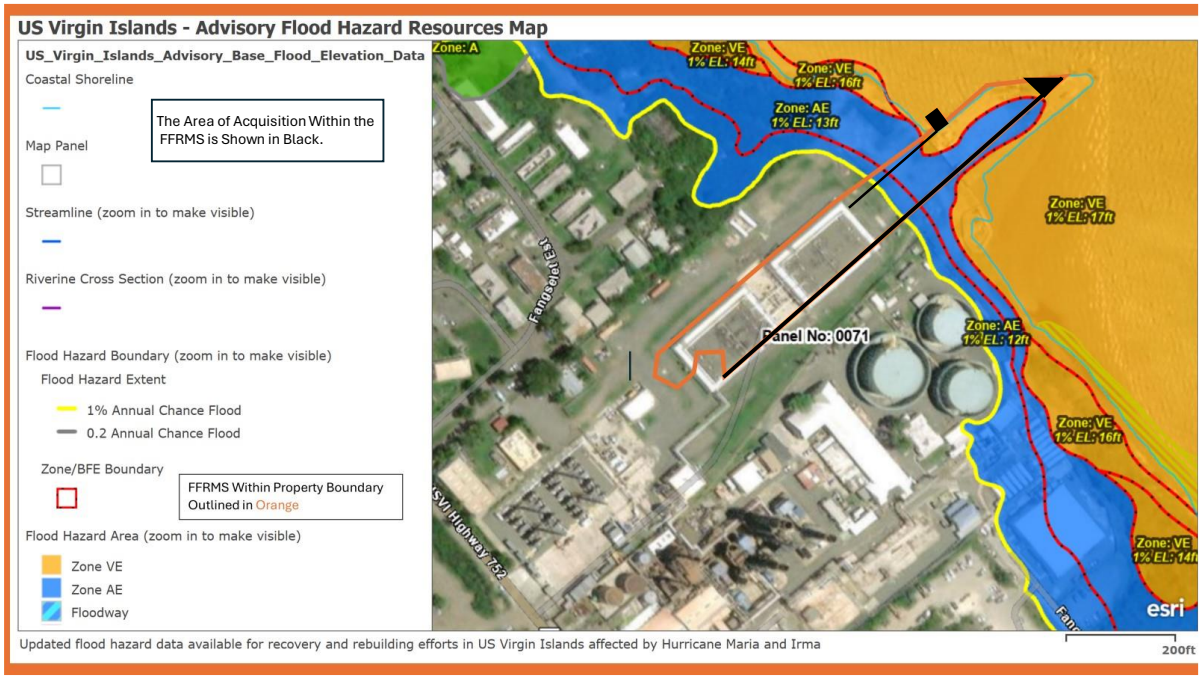


Figure 4. The area of acquisition within the FFRMS is shown in black.

Figure 14. Early Notice

Name of Project: VIWAPA - Propane Supply Infrastructure Acquisition

Location: St. Thomas: 105203040100; 105204050118 & St. Croix 202800030600

Activity: Acquisition of the Propane Supply Infrastructure on St. Croix and St. Thomas

VIRGIN ISLANDS DEPARTMENT OF PLANNING AND NATURAL RESOURCES -
HISTORIC PRESERVATION AND CULTURAL RESOURCES ASSESSMENT

The activities and location of the proposed project have been analyzed and assessed and, to the best of my knowledge, the following situations apply:

(1) Does the proposed project area contain any property listed on the National Register of Historic Places?

Yes ○ No ◉

(2) Are there any other properties within the vicinity of the project that appears to be historic or fit to be listed or are already listed in the National Register?

Yes ◉ No ○

(3) Is yes, will the proposed project have any adverse impact on these resources?

Yes ○ No ◉

(4) Describe the design features necessary to minimize any potential impact on historic or cultural resources.

(5) Is the Section 106 Compliance Process required?

Yes ○ No ◉

(6) Initial Survey required:

A. Phase A (☐) B. Phase 1 (☐)
C. Phase 2 (☐) D. Monitoring (☐)
E. Other (☐) Please describe: _____

(7) Other comments:

In review of the CDBG MIT application, it was noted that there is no discussion on the offshore moorings for the propane supply ships. Are these moorings already the property of the GVI?

Name (Print): Sean L. Krigger Signature: Sean L. Krigger

Title: Director and Deputy SHPO Date: May 15, 2024

Organization: DPNR - Virgin Islands State Historic Preservation Office

Figure 15. VI SHPO concurrence that 106 Compliance Process is not required.

Figure 16. Sole Source Aquifer Map STX facility

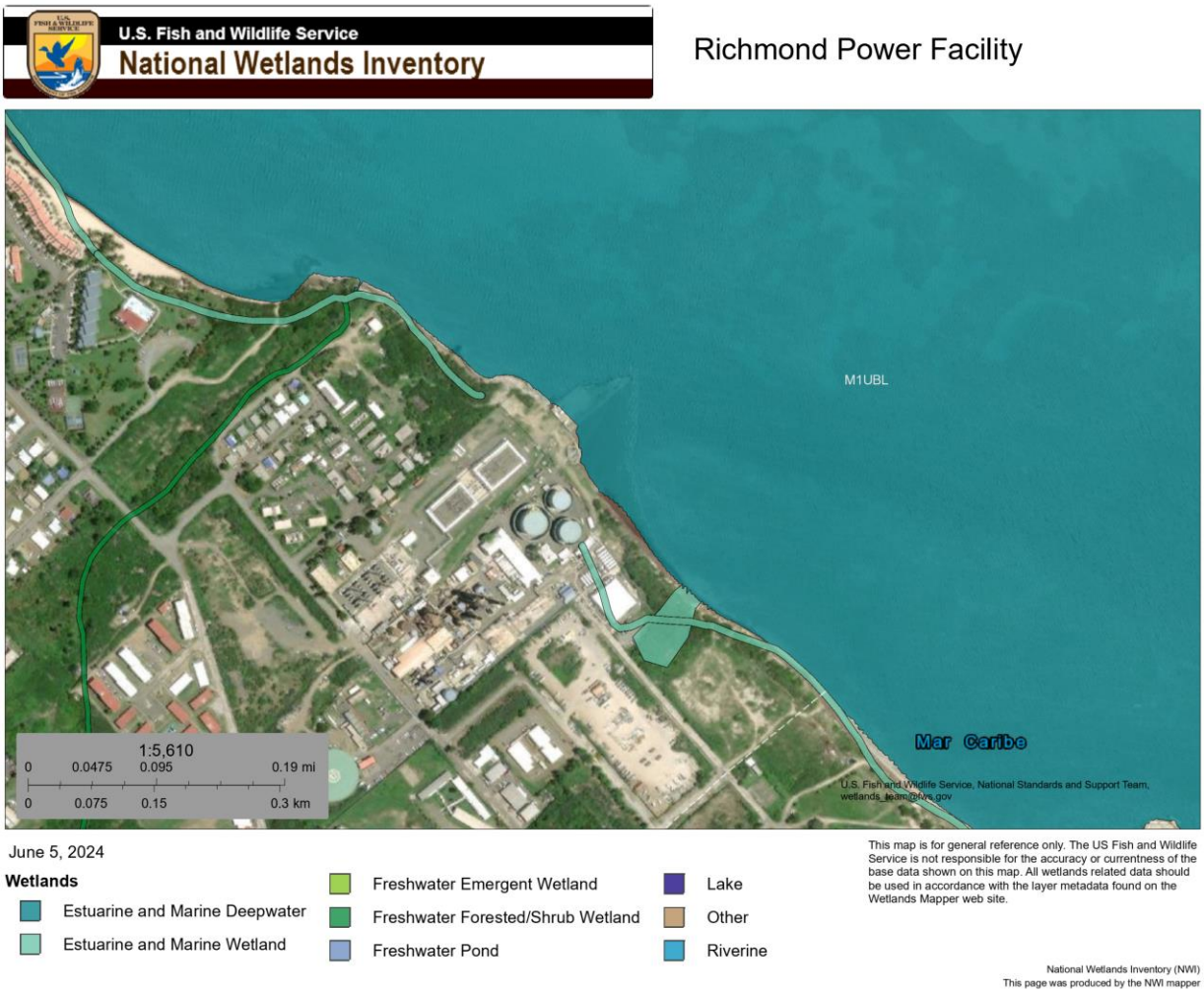


Figure 17. FWS Wetland Map of the Richmond Facility, no wetlands are impacted by the LPG infrastructure.

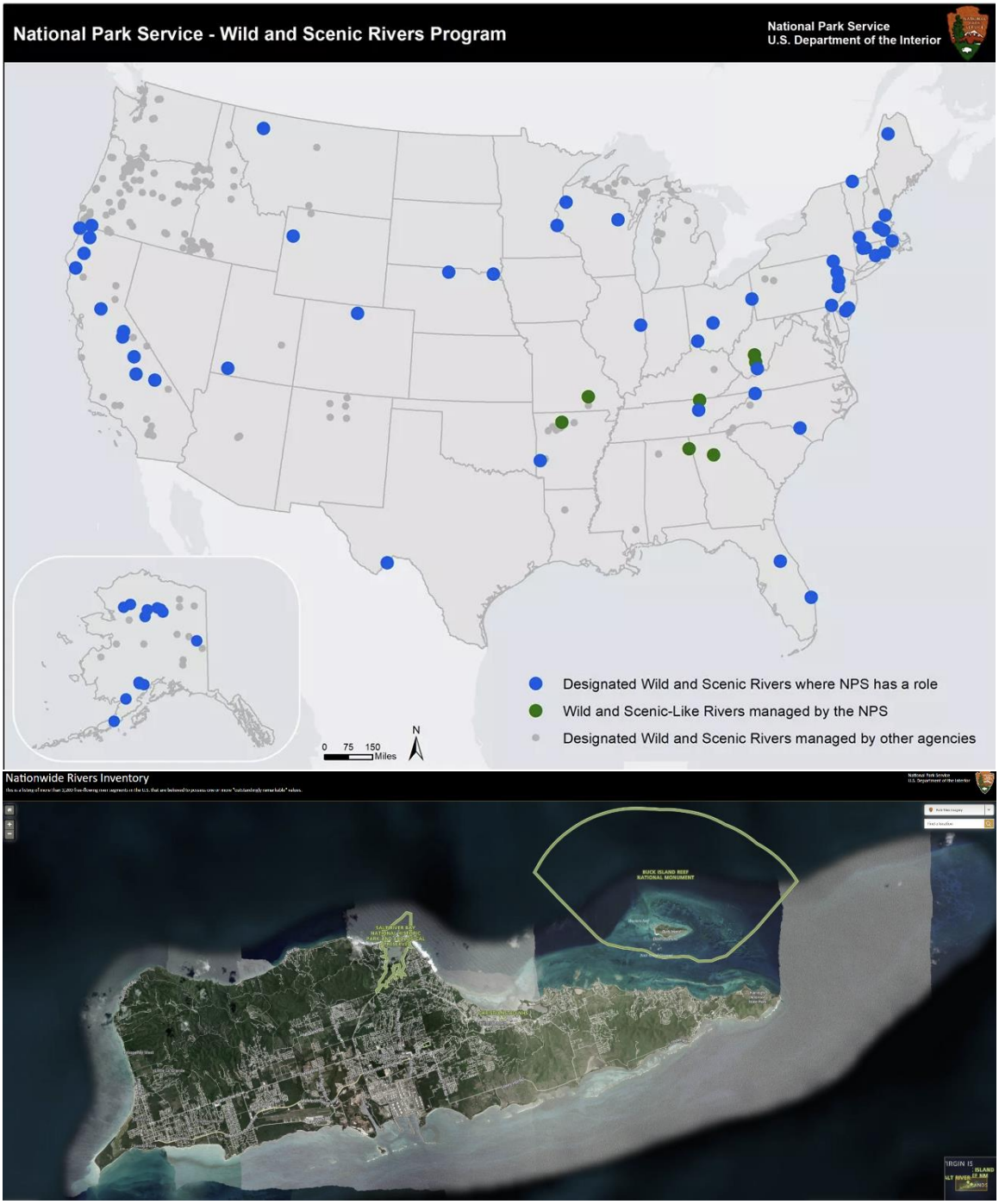


Figure 18. The are no rivers in St. Croix, but there area NPS projected area on St. Croix, neither of which is impacted by this project.

Figure 19. Low and Moderate Income Tract Map, VIWAPA Richmond Plant location is indicated by red star.

ENVIRONMENTAL ASSESSMENT REPORT

FOR RICHMOND POWER PLANT

(POWER PLANT) LIQUIFIED PETROLEUM GAS

(LPG) CONVERSION PROJECT

Christiansted, St. Croix U.S. Virgin Islands

Prepared for:

THE OFFICE OF COASTAL ZONE MANAGEMENT

DEPARTMENT OF PLANNING AND NATURAL RESOURCES,

AND THE GOVERNMENT OF THE VIRGIN ISLANDS

Prepared by:

BIOIMPACT, INC.

APPLIED ECOLOGICAL SOLUTIONS INC.

TRINITY CONSULTANTS, INC.

SUTHERLAND ASBILL & BRENNAN LLC

October 2013

DESIGN AND SAFETY INFORMATION EAR 2013 STX – Excerpts from The Environmental Assessment Report

Safety and Security

Whenever a terminal is built, safety and security issues are raised. This project has been carefully evaluated for safety and security. First, the project has been designed and will be operated consistent with all applicable federal safety and security requirements. Secondly, the mounded design of the Terminal Facilities provides additional safety and security beyond federal requirements. The mounded design of the Terminal Facilities protects the tanks from heat, hurricanes and accidental impacts. This design is accepted worldwide as best practice for safe construction of LPG terminal facilities.

The safety and security features of the project are discussed in Section 7.08. These features include state-of-the-art leak detection, monitoring, emergency shutdown mechanisms, firefighting equipment and a control room manned on a 24/7 basis.

Final grading and construction of the base raft for the mounds

Perform all rough and finish grading required to accommodate the works. Sedimentation and erosion control measures will be used to prevent erosion of graded areas during construction. All soil embankment slopes shall be to a gradient of 1 to 4, and protected from erosion with a geotextile filler fabric and loosely placed hard stone.

A hardcore or blinding concrete shall be laid across the mound foundation to a depth of approximately 40mm (1.5”) to provide a clean surface for steel reinforcement works. The base slab for the mounds is designed to be a continuous piled raft over the entire mound footprint to ensure that:

- Tank / mound loads are adequately spread.
- Differential settlement between tanks does not occur.
- In event of earthquake, differential movement between tanks, piping, and equipment does not occur, it all moves as one!

Reinforcement details have yet to be developed, but the overall slab is intended to be a minimum of 450mm (18”) and locally thickened at the tank saddle (founding) positions to approximately 1m (40”). The slab will have integrated concrete footings on which the tank saddles will be placed. Clearance between TOC and underside of tank will be approximately 1.4m.

The overall base raft consists of two mound slabs plus the intermediate piping / pump / compressor slab. Each is to be poured continuously to avoid construction joints and in the order of (1) mound 1, (2) mound 2 and finally (3) pump / compressor slab. Reinforcement design will allow each of the pours to be tied together to create a continuous raft with any expansion / construction joints made outboard of the mounds within the pump / compressor slab.

Installation of Storage Tanks

The tanks are being fabricated / hydrotested in accordance with ASME VIII Div 2 off site in Belgium, and will be shipped no later than the 30th April 2014. Provisionally, all tanks will arrive on one ship in the USVI early in June and are to be transshipped at either the Wilfred "Bomba" Allick Port and Transshipment Port (Container Port) or the Molasses Dock on the Southern side of St Croix. The storage tanks will be lifted onto self-driving bogies (two per storage tank) and then driven onto a barge which will be sailed to the offloading site. After placement of suitable ramps from shore to barge and driving mats across the foreshore area, they will be driven off the barge and into position on the foundation raft. This process is to be repeated until all the tanks are in position.

Construction of Mounds

After first scabbling the base slab concrete to form a key at the base of the retaining walls, the steel reinforcement plus inside shutter are to be erected. The mound tell-tale pipes are also to be installed at this time, followed by the outside shutter in readiness to receive concrete. The total height of the wall is circa 9m. Both good scaffold access along the length of the pour, and use of hydraulically operated concrete pumps are necessary to ensure safety and efficiency. After curing, shuttering is to be removed and filling the mound will commence. Each mound requires some 13,000 m3 of material. Early planning envisages use of a conveyor belt system to assist in placement with the material being loaded onto the conveyor by excavator. Fine sand will be used immediately around the storage tanks and wrapped in a geotextile, with the balance of the mound being filled with a coarser, locally available material. Placement will be staged in approximately 500mm layers to ensure that any voids are manually filled and that each layer is compacted. The total cover to the storage tanks is intended to be circa 1m and the top layers will contain a waterproof HDPE membrane covered with a stone / pebble finish in which there are land drains to effectively drain the surface. Paths and access steps have been incorporated to allow safe ingress / egress to operational areas atop the mounds.

Construction of Ancillary Facilities (Drainage, Roads, Fire Fighting, Office)

Once the heavy construction of the mounds has been completed, it will be possible to start installing the underground fire main and drainage lines and forming the site roads, which is anticipated to be done in parallel with the mechanical installation. Details and routes for drainage and fire main installation will involve trenching and laying HDPE / GRE piping at relatively shallow depths (invert approx. 1m). Where piping has to cross under trafficked areas, a reinforced spreader slab will be installed to avoid vehicle loads affecting the pipes. Roads are generally to be sloped outwards from the mounds at a gradient of 1% such that rainwater runs off to shallow open trenches running parallel to the road system and leading to the existing storm water outfall 002 belonging to WAPA.

The office building is to house the site electrical distribution system, control systems, and general offices plus a small store. It is currently arranged on two floors and will be a concrete / block work construction supported on a beam foundation.

Mechanical Installation

The overall mechanical system will be built in accordance with ASME B31.3, class 300.

Equipment is generally going to be procured from the states and shipped into the VI in containers which will be temporarily stored at the site until such time as the equipment is placed or installed.

Piping is relatively small in diameter (4", 6" and 8"). Much of it will be pre-fabricated off site and brought in ready for final field welds to assemble. Piping within the terminal and to the vaporizers is to be carbon steel, but in order to ensure cleanliness downstream of the vaporizers, stainless piping will be utilized. Where possible, the pre-fabrication will include sand blasting and at least a holding primer to minimize in field blasting. Paint will typically be applied by roller / brush to the specified DFT.

Field erected piping to / within the Power Plant area will be completed earlier in the overall program than the pump / compressor station area which can't effectively be started until the mounds are finished.

Piping components are all welded joined unless connecting to a piece of equipment (pump, valve, compressor, etc.) in which case a flange joint will be used.

Suitable personnel access is to be provided to safely and ergonomically operate the various equipment.

Piping sections will be lifted into position by crane after supports are set with final alignment under direction of experienced pipe fitters. Pipe ends are to always be capped in the storage area to avoid dirt entering and to avoid small animals making the pipe their new home.

Electrical, Instrument and Automation Installation

13.8KV will be supplied to an outdoor transformer (13.8/440V) local to the electrical room from WAPA's substation no 1. 440V will be distributed from the electrical distribution board (bottom entry) via above ground, cable rack / tray supported cable networks to end consumers. All electrical systems and end consumers will be suitably rated for the environment in which sited (hazardous / nonhazardous).

Cable racks, ladders and tray routes will be installed. The electrical contractor will then pull individual cables into position before clipping off the rack / tray to secure and terminate each end with appropriate glands. Steel wire armored cable is to be used with safety cabling (fire / gas) being heat resistant.

The exception to the above ground cabling is the 13.8KV supply cable, which will be trenched in and appropriately marked with cable warning tape and tombstone above ground markers. Note that there will be a requirement to cross the public road to reach the switch station. This cutting will need to be coordinated with the Public Works department, and the road restored afterwards.

A central control room will have the necessary HMIs installed via a DCS system to monitor and control the facility inclusive of displays / alarms / alerts for tank gauging, Hi Hi, ESD, fire and gas detection, pressure, flare, vaporizers, steam boilers, pumps, compressors, CTTV and security monitoring, etc.

Commissioning

The terminal will be commissioned under the supervision of an experienced commissioning engineer and in accordance with developed, site specific sets of commissioning instructions. The process is progressive from mechanical completion to pre-commissioning checks to LPG commissioning with formal sign off at each stage required by both the operations and commissioning teams. Commissioning will not start unless all punch items relating to safety, operability, etc. have been signed off and agreed as complete.

6.03 Drainage, Flooding and Erosion Control

6.03.a Existing Drainage Patterns

The project site is located in close proximity to the Christiansted Harbor (Harbor) shoreline, within the middle portion of a watershed that drains into the harbor. However, the site is not located within the watershed's floodway or within its primary drainage routes leading to the sea. Due to previous developments in this area, the majority of the watershed has been altered with much of the run-off from the upper portions of the watershed being intercepted and diverted from the Power Plant area.

The existing drainage pattern is from the upgradient road, moving northeast towards the property boundary of the site, which ends at the Caribbean Sea. The site falls from 9 meters to 2 meters over a distance of 295 meters, forming a slope grade of 2.4%.

The site is currently considered fully developed with minimal top soil and a 95% impervious surface. There is no existing drainage feature on the site, other than the curbing and drainage along the roadway. Runoff sheet flows across the site and into the sea. The pre-developed runoff calculation is 52.22 cfs for the 25 year storm, 58.30cfs for the 50 year storm, and 69.16 cfs for the 100 year storm.

6.03.b Proposed Alterations to Drainage Patterns

The proposed development will alter the existing drainage patterns of the site. This project's storm water runoff will drain through proposed and existing swales and a piping collection system to an existing permitted storm water discharge at the WAPA Richmond Generating Facility (TPDES Permit No. VI0000051) after passing through an oil and water separator. This permitted discharge enters Christiansted Harbor, which is classified as Class B receiving water.

All standard sediment and erosion control devices and Best Management Practices (BMPs) will be implemented prior to commencement of any site work and will be maintained throughout the life of the project. Permanent BMPs shall be maintained according to standard practices on a regular schedule and after storm events.

The site is fully developed consisting of 95% of impervious surface, with a slope grade of approximately 2.4%. Currently, rainfall sheet flows across the site then into the sea. Several existing structures will be demolished, where their former footprints will be regarded. Top soil will be added to those areas. Upon completion, the project will reduce the amount of impervious surface and will decrease the amount of runoff from the project location by approximately 43%.

Sediment and erosion controls will be implemented to effectively control drainage patterns, diverting runoff to an existing permitted outfall. Specifically, a diversion berm and swale will be constructed from the drive entrance of the site along the property line to the south. Inlet protection

will be placed in the swale prior to the twin culvert pipes before leaving the project site. This design will divert storm water from the existing road to the west of the site, allowing storm water to bypass areas disturbed by construction.

Two storm water basins (B-1 and B-2) will also be constructed to treat and detain storm water from the southwestern portion of the project site outside of the new concrete containment wall and perimeter fences. The basins will drain through concrete channels that will be connected to the existing drainage system at the Power Plant. Storm water will then pass through an oil and water separator and ultimately discharged at WAPA's TPDES-permitted Outfall 002 into the Harbor.

6.03.c Relationship of the Project to the Coastal Flood Plain

All of the shoreline area and offshore areas are within Zones VE17 and VE10. Areas of the 100-year coastal flooding (storm event) with velocity (wave action) have been determined to be 17 ft. (Flood Insurance Rate Map, Panel 40 of 94, revised April 16, 2007) (Figure 6.02-F.4). The project site (terminal and dock areas) lies in three flood zones: (1) Zone VE16 (areas of 100-year coastal flooding with velocity (wave action) have been determined to be 16 ft.); (2) Zones AE12 and VE13 (areas of 100-year coastal flooding with velocity (wave action) have been determined to be 12ft. and 13 ft., respectively); and (3) Zone X, where flooding is not anticipated.

The dock extends into Zone VE 17, but the facility is categorized as located within Zone VE 13. Zone VE 13 extends along the shoreline across the site property. All inland portions of the property are located within Zone X, where no flooding is anticipated for the 100-year storm event. (See Figure 6.02-F.4 - Flood Insurance Rate Map Panel 71 of 94, April 17, 2007).

6.03.d Peak Storm Water Flow Calculations

Peak storm water flow calculations were performed for the proposed site development using the rational method and taking into consideration the various current surfaces and future alterations to those surfaces from the proposed developments of the site. The 24-hour peak intensity-duration values provided by the NOAA were used to calculate the approximate peak run-off rates for the hydraulic storms with return periods of 25, 50, and 100 years.

Upland flows will be diverted from the site and therefore were excluded from these calculations. Only changes to run-off from the development of the project site were considered in the calculations. The following table illustrates pre-development and post-development peak run off rates from the site:

Year Storm	25	50	100
PRE DEV	52.22 cfs	58.30 cfs	69.16 cfs
POST DEV			
B-1	0 cfs	0 cfs	0 cfs
B-2	0.9 cfs	0.98 cfs	1.76 cfs

MOUND	28.59 cfs	32.29 cfs	39.38 cfs

In sum, site development will reduce runoff (from the mound and basin B-2 areas) to 29.59 cfs – a 43% total reduction of runoff from the site. Runoff will be directed to WAPA's permitted discharge and into Christenson Harbor after passing through an oil and water separator.

6.03.e Existing Storm Water Disposal Structures

There is no existing storm water disposal structure within the project area. Runoff currently sheet flows from the parking areas and other impervious surfaces across the site. The only existing storm water control feature within the proposed development footprint consists of some curbing along the roadway to the south that intercepts runoff flowing onto the property.

6.03.m Impacts on Terrestrial and Shoreline Erosion

The project will reduce the amount of impervious surface within the development area. Areas that are currently paved or contain existing structures will be cleared and reclaimed with either gravel or grass, which will allow for greater infiltration and reduce runoff. The proposed implementation of onsite drainage features will also decrease runoff. All-in-all, these improvements will reduce runoff from the project site by roughly 43%.

Remaining runoff from the LPG tanks and other paved areas at the site will be collected and discharged through the permitted WAPA storm water discharge system. A sampling point will be created at various points of discharge into WAPA's system, so that runoff from the site may be tested. Implementation of sediment and erosion controls would further minimize potential erosion and negative impacts on the terrestrial and marine environment. Finally, the shoreline adjacent to the project area is revetted and is not susceptible to erosion. Therefore, the project will not negatively impact shoreline erosion.

Richmond Power Facility

Property Information

Property ID	206702015100
Location	16 SION FARM HOUSING DEVELOPMENT
Owner	GATES PATRICIA & RAPHAEL BRATHWAITE JR

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

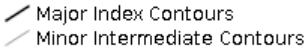
US Virgin Islands makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated 06/2023
Data updated 06/2023

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

Map Theme Legends

Topography



NOV 27 2000

NOV 27 2000

Mr. Gregory Rhymer
Environmental Manager
Virgin Islands Water and Power Authority
P.O. Box 1450
St. Thomas, U.S. Virgin Islands 00804

Sub: Prevention of Significant Deterioration of Air Quality (PSD) Final Permit for North Shore, St. Croix facility

Dear Mr. Rhymer:

On December 16, 1996, Virgin Islands Water and Power Authority (VIWAPA) submitted an application to revise the PSD permits for power generating Units 16, 17, 19 and 20 at your North Shore facility in St. Croix. Based on the review of the information you provided through January 28, 1999, we issued a draft PSD permit on January 13, 2000. The public comment period ended on March 6, 2000. VIWAPA, the only commenter, submitted about 15 comments. Your comments pertain primarily to the proposed revisions to the VOC emission limits based on the test results and various testing protocols.

EPA reviewed the concerns raised by VIWAPA and made changes to this draft permit. The proposed emission limits for the VOC have been changed to account for variability in the test results and sampling errors. Minor changes also have been made to testing protocols. EPA on its own also has removed the emission limits and related requirements for Beryllium for all the units because Beryllium is no longer a PSD affected pollutant. These changes and the response to all the comments that were raised during the public comment period can be found in Enclosure III. A project description and summary of the control technologies to be used are provided in Enclosure I. The permit conditions are found in Enclosure II.

EPA concludes that this final permit meets all applicable requirements of the PSD regulations codified at 40 CFR §52.21 and the Clean Air Act (the Act). Accordingly, I hereby approve VIWAPA's PSD permit. This letter and its attachments represent EPA's final permit decision. The Administrative Record for this case is located at both the EPA Region 2 Office in New York City, New York, and EPA's Caribbean Environmental Protection Division Office in St. Croix, Virgin Islands.

If you have any questions regarding this letter, please call Mr. Steven C. Riva, Chief, Permitting Section, Air Programs Branch, at (212) 637-4074.

Sincerely,

/S/ William J. Muszynski

Jeanne M. Fox
Regional Administrator

Enclosures

This final permit decision may be challenged under the Consolidated Permit Regulations, codified at 40 CFR Part 124, that apply to EPA's processing of this permit decision. Specifically, 40 CFR §124.19 establishes the following procedures for administrative appeal of the final PSD permit decision. Any person who filed a comment on the draft permit may petition the Environmental Appeals Board in Washington, D.C. for review. In addition, any person who failed to file a comment on the draft permit may petition for administrative review only to the extent of the changes from the draft to the final permit. Any petition for review under this part must be made within thirty (30) days of the service of notice of the final permit decision by the EPA Regional Administrator. The petition for review shall include a statement of the reasons supporting that review, and shall adhere to the standards outlined in 40 CFR §124.19(a)(1) and (2).

All persons applying for administrative review must file the original and one (1) copy of the petition for review with the Environmental Appeals Board at the following address:

For Regular Mail:
U.S. Environmental Protection Agency
Environmental Appeals Board (MC-1103B)
401 M Street, SW
Washington, DC 20460

For Hand-Carried and Express Mail:
U.S. Environmental Protection Agency
Environmental Appeals Board (MC-1103B)
Westory Building, Suite 500
607 14th Street, NW
Washington, DC 20005

Phone number: (202) 501-7060
Fax number: (202) 501-7580

For purposes of judicial review under the Act, final Agency action does not occur until after administrative review procedures are exhausted. Notice of the Agency's final action with respect to this permit will be published in the Federal Register. Judicial review of this final action is available by filing a petition for review in the United States Court of Appeals for the appropriate circuit within sixty (60) days of the date of the Federal Register notice. Under Section 307(b) of the Act, this final Agency action shall not be subject to judicial review in civil or criminal proceedings for enforcement.

Since comments requesting changes to the draft permit were received and minor changes were made to the permit, this final permit will become effective thirty (30) days after the service of notice, unless review is requested under 40 CFR §124.19. If a petition for review of the final Agency action is filed, the permit will not become effective until after a decision on the petition is rendered by the Environmental Appeals Board.

ENCLOSURE I

VIRGIN ISLANDS WATER AND POWER AUTHORITY
NORTH SHORE-ST. CROIX

PROJECT DESCRIPTION

The Virgin Islands Water and Power Authority (VIWAPA) is requesting to revise the existing permits for Units 16, 17, 19 and 20 located at its North Shore, St. Croix site for the reasons stated below. EPA is proposing to consolidate permits of Units 10, 11, 12, 14, 16, 17, 19 and 20 into a single amended permit. VIWAPA has retired and dismantled Units 12 and 14, however, it will continue to operate pre-PSD boiler Units 10 and 11 according to the Virgin Islands Department of Natural Resources permits. Thus, VIWAPA will operate six Units at this site.

Units 10 and 11
VIWAPA will continue to use these pre-PSD existing boilers pursuant to the permits issued by VIDPNR. These Units shall continue to use residual fuel or better with maximum sulfur content of 0.33% by weight.

Units 12 and 14
These Units have been retired and dismantled.

Units 16 and 17
EPA is proposing to revise the compliance demonstration and testing requirements for the two existing units - unit 16 and 17 at its St. Croix generating station. Unit #16 is a 23 MW General Electric (GE) oil-fired gas turbine (Model PG 5341) which was installed in 1981. Unit 17 is a 20 MW Alsthom Model Series (Model MS 5001) oil-fired gas turbine, which was installed in October 1988. Emissions from units 16 and 17 will be vented through a Heat Recovery Steam Generator (HRSG) capable of producing 98,000 pounds per hour of steam. The HRSG will be configured such that either of the two gas turbines may operate alternatively in a simple or combined cycle mode. These units burn No. 2 fuel oil having a maximum sulfur content of 0.2 percent by weight.

Unit 19
EPA is proposing to revise the PM10 emission limit from 5 lbs/hr to 18 lbs/hr, VOC emission limits to reflect the oxygen correction requirement and the revisions in EPA's test methods. The permit issued in 1993 required PM10 testing using Method 201/201A whereas the test which should have been required to be conducted was Method 201/202. Method 202 will catch additional condensible particles. This permit revision continues to limit VIWAPA to .2% sulfur fuel. However, VIWAPA conducted a test of its PM-10 emission rate using approximately .08% sulfur fuel. EPA retains its authority under Section 114 of the Clean Air Act, 42 U.S.C. §7414 to require further PM-10 testing in the event VIWAPA uses fuel exceeding .12% or at any other time that EPA deems appropriate. EPA further reserves the right to revise the sulfur in fuel limit in the event a stack test reveals an exceedance of the 18 lb./hr. PM-10 limit. The VOC emission

estimate by VIWAPA at the initial permit issuance was not based on oxygen correction, however, the permit set the VOC emission limit based on oxygen correction. Thus, the test results reflect emissions based on more accurate test methods rather than a net increase in emissions. This unit, designated unit 19, is a variable load General Electric (GE), Frame 5 combustion turbine (Model PG5371). The unit produces approximately 20 MW of electricity. Unit 19 replaced unit 14 (an older unit installed in 1972) and was constructed on the same location where unit 14 existed. Note that VIWAPA did not use actual emission credits from unit 14 to offset potential emissions from unit 19 when an initial permit was issued in 1993. Unit 19 operates under simple cycle mode, without any secondary heat recovery. Unit 19 burns No. 2 fuel oil having a maximum sulfur content of 0.2 percent sulfur by weight.

Unit 20

EPA is proposing to revise the PM10 emission limit from 5 lbs/hr to 18 lbs/hr, VOC emission limits to reflect the oxygen correction requirement and the revisions in EPA's test methods. The permit issued in 1994 required PM10 testing using Method 201/201A whereas the test should have been required to be conducted was Method 201/202. Method 202 will catch additional condensible particles. This permit revision continues to limit VIWAPA to .2% sulfur fuel. However, VIWAPA conducted a test of its PM-10 emission rate using approximately .08% sulfur fuel. EPA retains its authority under Section 114 of the Clean Air Act, 42 U.S.C. §7414 to require further PM-10 testing in the event VIWAPA uses fuel exceeding .12% or at any other time that EPA deems appropriate. EPA further reserves the right to revise the sulfur in fuel limit in the event a stack test reveals an exceedance of the 18 lb./hr. PM-10 limit. The VOC emission estimate by VIWAPA at initial permit issuance was not based on oxygen correction, however, the permit set the VOC emission limit based on oxygen correction. Thus, the test results reflect emissions based on more accurate test methods rather than a net increase in emissions. This unit, designated as Unit #20, is a variable load General Electric (GE) combustion turbine, Model PG5371(PA). The unit produces approximately 24.5 megawatts (MW) of electricity, and replaced Unit #12 (an older diesel engine, installed in 1968). Note that VIWAPA did not use actual emission credits from Unit #12 to offset potential emissions from Unit #20 when it was issued the initial permit in 1994. Unit #20 operates under simple cycle mode, without any secondary heat recovery, and burns No. 2 fuel-oil with a maximum sulfur content of 0.2 percent sulfur by weight.

Units 16, 17, 19 and 20 at this site are PSD sources with potential emissions of criteria pollutants in excess of 100 tons per year (TPY). Each unit was issued a PSD permit prior to the present action. All these units are PSD affected for oxides of nitrogen (NO_x), sulfur dioxide (SO_2), carbon monoxide (CO), particulate matter less than 10 microns (PM_{10}), and volatile organic compounds (VOC). The potential emissions from these units are as follows.

POLLUTANT	UNITS 16 AND 17	UNIT 19	UNIT 20
	(tons/year)	(tons/year)	(tons/year)
Nitrogen Oxides (NO_x)	583.0	249.7	249.7
Sulfur Dioxide (SO_2)	591.3	278.4	281.0
Carbon Monoxide (CO)	325.3	1379.7	1379.7
Particulate matter less than 10 microns (PM_{10})	105.5	78.8	78.8
Volatile Organic Compounds (VOC)	117.8	247.5	247.5

VIWAPA employs Best Available Control Technology to control the pollutants described above. NO_x emissions shall be controlled through the use of water injection. SO_2 and PM_{10} emissions will be controlled through the use of low sulfur distillate fuel oil. CO and VOC emissions will be controlled by implementing good combustion practices and performing intensive maintenance.

ENCLOSURE II

VIRGIN ISLANDS WATER AND POWER AUTHORITY (VIWAPA)
NORTH SHORE-ST. CROIX

PERMIT CONDITIONS (Units 16,17,19 and 20)

The electric power generating units at VIWAPA - St. Croix, as described in Enclosure I, are subject to the following conditions:

I. EMISSION LIMITATIONS AND TESTING REQUIREMENTS:

A. Unit 16 ---- 23 MW GE Frame 5 (Model PG5341)

1. The total fuel usage for unit 16 shall not exceed 21,199,200 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel oil used during each calendar day to the total quantity of the fuel oil used in the preceding 364 calendar days.

2. a. The maximum heat input shall not exceed 338.8 million British Thermal Units per hour (MMBTU/hr).

   b. Unit 16 is limited to a maximum fuel consumption rate of 2420 gallons per hour.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

   a. While operating in simple or combined cycle mode, the NO_x emissions shall not exceed 59.1 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs.

   Except when operating at low loads (less than 35% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 42 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

   b. Except when operating at low loads (less than 35% capacity) as reserve, VIWAPA shall use water injection at all times to control NO_x emissions. The water to fuel ratio for various load conditions will be established during the performance testing and will be incorporated into the VIDPNR operating permit. Operation at

the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

c. While operating in simple or combined cycle mode, using the old combustion portion of the generating unit, the NO_x emissions shall not exceed 77.4 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs. Except when operating at low loads (less than 35% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 55 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period."

d. If EPA determines that the above emission limitations cannot be continuously maintained, the installation of an add-on nitrogen oxide control system, such as, but not limited to selective catalytic reduction will be required. The gas turbine system shall be designed to accommodate the inclusion of the control system.

4. **Sulfur Dioxide (SO_2) Emission Limitation:**

a. While operating in simple or combined cycle mode, SO_2 emissions shall not exceed 67.8 lbs/hr. The initial compliance with the emission rate shall be demonstrated by stack tests using EPA (RM) 20 (40 CFR 60 Appendix A). The initial stack test shall be conducted at various loads. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various load conditions and compliance shall be based on the average SO_2 emission rate of these test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate. In these calculations, VIWAPA shall assume that all sulfur is converted to SO_2. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour.

b. VIWAPA shall use only low sulfur No. 2 fuel oil in which the sulfur content does not exceed 0.2 percent by weight. Compliance shall be determined using the

testing methods established in 40 CFR 60.335(d).

5. **Carbon Monoxide (CO) Emission Limitation:**

   a. While operating in simple or combined cycle mode at base load, CO emissions shall not exceed 37.3 lbs/hr. The CO emission rate shall be tested using EPA (RM) 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

   b. CO emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen as determined by continuous emission monitoring. Percent load will be determined based on the amount of fuel oil fired.

PERCENT LOAD	CONC. OF CO (ppmdv @ 15% O_2)
5MW	2947
12MW	1530
17MW	593
18-22MW	204
MAX	51

6. **Particulate Matter/PM_{10} Emission Limitation:**

   a. While operating in simple or combined cycle mode, PM emissions shall not exceed 12.1 lbs/hr.

   b. While operating in simple or combined cycle mode, PM_{10} emissions shall not exceed 12.1 lbs/hr.

   c. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The emission rate of PM shall be determined using EPA (RM) Method 5. The PM10 emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average emission rate of these three test runs.

7. **Volatile Organic Compounds (VOC) Emission Limitation:**

   a. While operating in simple or combined cycle mode at base load, VOC emissions

shall not exceed 13.5 lbs/hr measured as carbon. The VOC emission rate shall be tested using EPA (RM) 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) 18 from the Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average VOC emission rate of these three test runs.

b. While operating in simple or combined cycle mode, VOC emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen. Percent load will be determined based on amount of fuel oil fired.

PERCENT LOAD	CONC. OF VOC (ppmdv @ 15% O_2)
5MW	1417
12MW	905
17MW	110
18-22MW	40
MAX	32

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitation:**

The opacity shall not exceed 17 percent, as determined by continuous monitoring except for 3 minutes in any consecutive 30 minute period during which 40 percent shall not be exceeded.

B. <u>Unit 17 ---- 20 MW Alsthom Model Series (MS) 5001</u>

1. The total fuel usage for unit 17 shall not exceed 21,024,000 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel oil used during each calendar day to the total quantity of the fuel oil used in the preceding 364 calendar days.

2. a. The maximum heat input shall not exceed 336.0 million British Thermal Units per hour (MMBTU/hr).

b. Unit 17 is limited to a maximum fuel consumption rate of 2400 gallons per hour.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

a. While operating in simple or combined cycle mode, NO_x emissions shall not exceed 55.7 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs.

b. Except when operating at low loads (less than 35% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 42 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

c. Except when operating at low loads (less than 35% capacity) as reserve, VIWAPA shall use water injection at all times to control NO_x emissions. The water to fuel ratio for various load conditions will be established during the performance testing and will be incorporated into the VIDPNR operating permit. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

d. If EPA determines that the above emission limitations cannot be continuously maintained, the installation of an add-on nitrogen oxide control system, such as, but not limited to selective catalytic reduction will be required. The gas turbine system shall be designed to accommodate the inclusion of the control system.

4. **Sulfur Dioxide (SO_2) Emission Limitation:**

a. While operating in simple or combined cycle mode, SO_2 emissions shall not exceed 67.2 lbs/hr. The initial compliance with the emission rate shall be demonstrated by stack tests using EPA (RM) 20 (40 CFR 60 Appendix A). The initial stack test shall be conducted at various loads. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various load conditions and compliance shall be based on the average SO_2 emission rate of these test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate. In performing these calculations, VIWAPA shall assume that all sulfur is converted to SO_2. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide

emissions in pounds per hour.

b. VIWAPA shall use only low sulfur No. 2 fuel oil in which the sulfur content does not exceed 0.2 percent by weight. Compliance shall be determined using the testing methods established in 40 CFR 60.335(d).

5. **Carbon Monoxide (CO) Emission Limitation:**

a. While operating in simple or combined cycle mode at base load, CO emissions shall not exceed 37.0 lbs/hr. The CO emission rate shall be tested using EPA (RM) 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen as determined by continuous emission monitoring. Percent load will be determined based on the amount of fuel oil fired.

PERCENT LOAD	CONC. OF CO (ppmdv @ 15% O_2)
5MW	2196
10MW	1140
15MW	442
18-20MW	152
MAX	38

6. **Particulate Matter/PM_{10} Emission Limitation:**

a. While operating in simple or combined cycle mode, PM emissions shall not exceed 12.0 lbs/hr.

b. While operating in simple or combined cycle mode, PM_{10} emissions shall not exceed 12.0 lbs/hr.

c. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The emission rate of PM shall be determined using EPA (RM) Method 5. The PM10 emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average emission rate of

these three test runs.

7. **Volatile Organic Compounds (VOC) Emission Limitation:**

a. While operating in simple or combined cycle mode at base load, VOC emissions shall not exceed 13.4 lbs/hr measured as carbon. The VOC emission rate shall be tested using EPA (RM) 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) 18 from Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average VOC emission rate of these three test runs.

b. While operating in simple or combined cycle mode, VOC emissions shall not exceed the following concentrations at various percent load levels corrected to 15% oxygen. Percent load will be determined based on amount of fuel oil fired.

PERCENT LOAD	CONC. OF VOC (ppmdv @ 15% O_2)
5MW	1063
10MW	679
15MW	82
18-20MW	30
MAX	24

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitation:**

The opacity shall not exceed 17 percent, as determined by continuous monitoring except for 3 minutes in any consecutive 30 minute period during which 40 percent shall not be exceeded.

C. <u>Unit 19 - 20 MW GE Frame 5 (Model PG5371)</u>

1. The total fuel usage for unit 19 shall not exceed 19,885,200 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel oil used during each calendar day to the total quantity of the fuel oil used in the preceding 364 calendar days.

2. a. The maximum heat input shall not exceed 317.8 million British Thermal Units per hour (MMBTU/hr).

b. Unit 19 is limited to a maximum fuel consumption rate of 2,270 gallons per hour.

3. **Oxides of Nitrogen (NO_x) Emission Limitation:**

a. The NO_x emissions shall not exceed 57 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs.

Except when operating at low loads (less than 25% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 42 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

b. Except when operating at low loads (less than 25% capacity) as reserve, VIWAPA shall use water injection at all times to control NO_x emissions. The water to fuel ratio for various load conditions will be established during the performance testing and will be incorporated into the VIDPNR operating permit. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period.

c. If EPA determines that the above emission limitations cannot be continuously maintained, the installation of an add-on nitrogen oxide control system, such as, but not limited to selective catalytic reduction will be required. The gas turbine system shall be designed to accommodate the inclusion of the control system.

4. **Sulfur Dioxide (SO_2) Emission Limitation:**

a. The SO_2 emissions shall not exceed 63.5 lbs/hr. The initial compliance with emission rate of SO_2 shall be determined using EPA (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various load conditions and compliance shall be based on the average SO_2 emission rate of these test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate and assuming that all sulfur is converted to SO_2 . The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow

consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour.

b. VIWAPA shall use only low sulfur No. 2 fuel oil in which the sulfur content does not exceed 0.2 percent by weight. Compliance shall be determined using the testing methods established in 40 CFR 60.335(d).

5. **Carbon Monoxide (CO) Emission Limitation:**

a. The CO mass emission rates at various loads are given in the table below. Compliance will be demonstrated using EPA (RM) 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various load levels corrected to 15% oxygen as determined by continuous emission monitoring. The load will be determined based on the amount of electricity generated (MW).

PERCENT LOAD	EMISSION RATE in lbs/hr(ppmdv @ 15% O_2)
5MW	315.0 (450)
10MW	294.0 (420)
15MW	288.1 (360)
18-20MW	219.8 (159)
MAX	66.7 (83)

c. For any 8-hour period, unit 19 shall not operate below a load factor of 15 percent.

6. **PM_{10} Emission Limitation:**

a. The PM_{10} emissions shall not exceed 18 lbs/hr.

b. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The PM_{10} emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average emission rate of these three test runs.

7. **Volatile Organic Compounds (VOC) Emission Limitation:**

a. The VOC mass emission rates (measured as carbon) at various load ranges is given in the table below. Compliance shall be demonstrated using EPA (RM) 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) Method 18 from Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition and compliance shall be based on the average VOC emission rate of these three test runs.

b. VOC emissions shall not exceed the following concentrations at various load levels corrected to 15% oxygen. The load will be determined based on amount of electricity generated (MW).

LOAD	EMISSION RATE in lbs/hr (ppmdv @ 15% O_2)
5 MW	56.5(268)
10 MW	28 (89)
15 MW	17.5 (37)
16-18 MW	5.6 (13)
MAX	3.1 (10)

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitation:**

The opacity shall not exceed 17 percent, as determined by continuous monitoring except for 3 minutes in any consecutive 30 minute period during which 40 percent shall not be exceeded.

D. <u>Unit #20 - 24.5 MW GE Turbine (Model PG5371)</u>

1. The total fuel usage for Unit #20 shall not exceed 19,830,720 gallons during any period of 365 consecutive days. Daily compliance shall be determined by adding the amount of fuel-oil used during each calendar day to the total quantity of the fuel-oil used in the preceding 364 calendar days.

2. a. The maximum heat input shall not exceed 317.9 million British thermal units per hour (MMBtu/hr).

b. Unit #20 is limited to a maximum fuel consumption rate of 2,270 gallons per

hour.

3. **Oxides of Nitrogen (NO_x) Emission Limitations:**

a. The NO_x emissions shall not exceed 57 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average NO_x emission rate of these three test runs.

Except when operating at low loads (less than 25% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 42 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at low loads cannot exceed 25% of the total annual operating time during a rolling 12-month period.

b. Except when operating at low loads (less than 25% capacity) as reserve, VIWAPA shall use water injection at all times to control NO_x emissions. The water to fuel ratio for various load conditions will be established during the performance testing, and will be incorporated into the VIDPNR operating permit.

c. If EPA determines that the above emission limitations cannot be continuously maintained, the installation of an add-on nitrogen oxide control system, such as but not limited to, selective catalytic reduction, will be required. The gas turbine system shall be designed to accommodate the inclusion of such a control system.

4. **Sulfur Dioxide (SO_2) Emission Limitations:**

a. The SO_2 emissions shall not exceed 64.2 lbs/hr. The initial compliance with emission rate of SO_2 shall be determined using EPA RM 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average SO_2 emission rate of these three test runs. VIWAPA shall demonstrate subsequent compliance with the SO_2 emission rate by calculating emissions based on average weekly fuel sulfur content and flow rate and assuming that all sulfur is converted to SO_2 . The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank. At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur

dioxide emissions in pounds per hour.

b. VIWAPA shall use only low sulfur No. 2 fuel-oil, in which the sulfur content does not exceed 0.2 percent by weight. Compliance shall be determined using the testing methods established in 40 CFR 60.335(d).

5. **PM_{10} Emission Limitations:**

a. The PM_{10} emissions shall not exceed 18 lbs/hr.

b. VIWAPA shall conduct stack tests to demonstrate initial compliance with the emission limits. These tests shall be conducted at various loads. The PM_{10} emission rate shall be determined using EPA (RM) Method 201/201A and 202 (40 CFR 51 Appendix M). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average PM_{10} emission rate of these three test runs.

6. **Carbon Monoxide (CO) Emission Limitations:**

a. The CO mass emission rates at various loads are given in the table below. Compliance will be demonstrated using EPA RM 10 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average CO emission rate of these three test runs.

b. CO emissions shall not exceed the following concentrations at various percent load levels, corrected to 15% oxygen, as determined by continuous emission monitoring. Percent load will be determined based on the amount of electricity generated (MW).

PERCENT LOAD	EMISSION RATE in lbs/hr(ppmdv @ 15% O_2)
5MW	315 (450)
10MW	294 (420)
15MW	288 (360)
18-20MW	219.8 (159)
MAX	66.7 (83)

c. For any 8-hour period, Unit #20 shall not operate below a load factor of 15 percent.

7. **Volatile Organic Compounds (VOC) Emission Limitations:**

a. The VOC mass emission rates (measured as carbon) at various loads is given in the table below. Compliance shall be demonstrated using EPA RM 25A (40 CFR 60 Appendix A). VIWAPA shall subtract methane and ethane emissions using EPA (RM) Method 18 from Method 25A VOC emission determination. These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted for each load condition, and compliance for each operating mode shall be based on the average VOC emission rate of these three test runs.

b. VOC emissions shall not exceed the following concentrations at various percent load levels, corrected to 15% oxygen. Percent load will be determined based on amount of electricity generated (MW).

LOAD	**EMISSION RATE in lbs/hr (ppmdv @ 15% O_2)**
5 MW	56.5(268)
10 MW	28 (89)
15 MW	17.5 (37)
18-20 MW	5.6 (13)
MAX	3.1 (10)

c. EPA reserves the right to require continuous emission monitoring for VOC in the future.

8. **Opacity Limitations:**

The opacity shall not exceed 17 percent, as determined by continuous monitoring, except for 3 minutes in any consecutive 30-minute period, during which 40 percent opacity shall not be exceeded.

E. Existing Residual Fuel-Consuming Units 10 and 11:

1. Unit 10 and unit 11 are limited to a maximum fuel consumption rate of 1,744 gallons/hour and 3,140 gallons/hr respectively.

2. Unit 10 and unit 11 shall use No. 6 fuel oil in which the sulfur content does not exceed 0.33 percent by weight.

II. MONITORING, RECORDING, and RECORD KEEPING:

A. Prior to the date of startup and thereafter, VIWAPA shall install, calibrate, maintain and

operate continuous emission monitors or monitoring systems to measure stack emissions and operating parameters indicated below:

Units 16/17
Continuous emission monitors (CEMs): CO, O_2, NO_x, and opacity.

Units 19/20-
Continuous emission monitors (CEMs): CO, O_2, NO_x, and opacity.
Continuous monitors: Volumetric stack gas flow rate, Stack temperature, and Water to fuel ratio.

B. Within 180 days of the effective date of this permit, VIWAPA shall install, calibrate and test each continuous emission monitor (CEM) and recorder listed in II(A). Monitors must comply with EPA performance and siting specifications pursuant to 40 CFR Part 60, Appendix B, Performance Specifications 1-4. Equipment specifications, calibration and operating procedures, and data evaluation and reporting procedures shall be submitted to EPA in a Performance Specification Test protocol. EPA reserves the right to require the auditing of the CEMs by independent agents. Data collected from the CEMs will be quality controlled and quality assured in accordance with the procedures specified in 40 CFR Part 60 Appendix F.

C. Not less than 90 days prior to the date of startup of any unit, VIWAPA must submit to the EPA a Quality Assurance Project Plan for the certification of the CEM systems. CEM performance testing may not begin until the Quality Assurance Project Plan has been approved by EPA.

D. VIWAPA shall submit a written report to EPA of the results of all monitor performance specification tests conducted on the monitoring system(s) within 45 days of the completion of the tests.

E. Logs shall be kept and updated daily to record the following:

1. the No. 2 fuel oil fired (gallons) on an hourly and annual (rolling 365-day) basis, and hours of operation for unit 16, 17, 19 and 20;

2. exceedance of emission limitations determined by continuous monitoring;

3. the sulfur content of all fuel oil burned; sulfur dioxide emission calculations, all sulfur dioxide emissions shall be recorded and maintained in a logbook.

4. the amount of water consumed (gals) to control NO_x emissions from all units

5. the amount of electrical output (MW) on an hourly basis from all units, amount of

steam produced from Units 16, 17 and the HRSGs at Units 16 and 17

6 the amounts (gallons) of No. 6 oil fired from existing Units 10 and 11 on an hourly basis

F. All continuous monitoring records and logs specified in this section must be maintained for a period of five years after the date of record, and made available upon request.

G. In each report quarter, 95% quality data availability shall be maintained for all opacity monitors and 90% quality data availability shall be maintained for all gaseous monitors. There shall be a quality assurance plan coupled with a calibration and maintenance program for these monitors.

III. REPORTING REQUIREMENTS:

A. All emission reports, testing reports and start-up notifications required under this permit shall be submitted to the EPA official named below. Three copies of the stack test report must be submitted within 60 days after completion of the test.

Mr. Carlos O'Neill, Chief
Enforcement and Superfund Branch
Caribbean Environmental Protection Division
U.S.E.P.A. Region II, Centro Europa Building
1492 Ponce De Leon Av, Suite 417
Santurce, Puerto Rico 00907-4127

B. Upsets/Malfunctions:

Upsets/malfunctions and actions taken on any unit must be reported by telephone within 24 hours with a follow-up letter within 5 calendar days to:

Mr. Hollis Griffin
Director, Division of Environmental Protection
Virgin Islands Department of Planning &
Natural Resources
Building 111, Apartment 114
Water Gut Homes
Christiansted, St. Croix, USVI 00820
(809) 773-0565

VIWAPA shall submit a written report of excess emissions to EPA for every calendar

quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the information specified below:

1. Specific identification of each period of excess emissions that occurred during start-ups, shutdowns, and malfunctions of the affected facility.

2. The nature and cause of any malfunction (if known) of the affected facility and the corrective action taken or preventative measures adopted.

3. For apparent excess emissions due to CEM malfunction, provide the date and time identifying each period during which the continuous monitoring system was inoperative (not including zero and span checks) and the nature of the system repairs or adjustments.

4. When no excess emissions have occurred, or the continuous monitoring system(s) have not been inoperative, repaired or adjusted, such information shall be stated in the report.

5. The sulfur dioxide emissions shall be recorded, maintained in a logbook and reported as part of in VIWAPA's quarterly excess emission report. All sulfur dioxide exceedances as determined by fuel sulfur content and fuel usage shall be reported in the quarterly report. If there are no exceedances during a quarter, a statement to this effect shall be included in the quarterly Excess Emission Report.

The quarterly excess emission reports required in this section shall be sent to

Ms. Ann Zownir
Region II CEM Coordinator
Air and Water Section, Monitoring and Management Branch
U.S. EPA Region II
2890 Woodbridge Avenue
Edison, New Jersey 08837

A copy should also be sent to Mr. Carlos O'Neill of Region II and Mr. Hollis Griffin of Virgin Islands Department of Planning and Natural Resources at the addresses listed under Section III.A. and III.B.

IV. OTHER PERMIT CONDITIONS:

A. This facility is subject to the General Provisions of the NSPS (40 CFR, Part 60, Subpart A), and the NSPS for Stationary Gas Turbines (40 CFR, Part 60, Subpart GG).

B. VIWAPA shall meet all other applicable federal, state and local requirements, including those contained in the Virgin Islands State Implementation Plan (VISIP).

V. TESTING REQUIREMENTS:

A. VIWAPA shall conduct all performance tests in accordance with the following:

1. Conduct stack tests on the units 16, 17, 19 and 20 for all affected pollutants in accordance with the test methods published in 40 CFR Part 60 Appendix A and 40 CFR Part 51 Appendix M. All tests must be conducted within 60 days after achieving shakedown, but no later than 180 days after initial startup.

2. Obtain approval of a stack test protocol. VIWAPA may use Test Method 19 in lieu of Test Method 2 to determine stack gas volume. A detailed description of the sampling point locations, sampling equipment, sampling and analytical procedures, data reporting forms, quality assurance procedures and operating conditions for such tests must be submitted to the EPA.

3. Notify EPA and VIDPNR at least 30 days prior to actual testing.

4. Provide permanent sampling and testing facilities as may be required by the EPA to determine the nature and quantity of emissions from each unit. Such facilities shall conform with all applicable laws and regulations concerning safe construction and safe practice.

B. The EPA reserves the right to require additional stack testing of the pollutants for which an emission limitation has been set in Section I of the permit.

ENCLOSURE III

VIRGIN ISLANDS WATER AND POWER AUTHORITY (VIWAPA)
ST.CROIX, U.S. VIRGIN ISLANDS

REVISIONS TO THE PSD PERMIT FOR UNITS 10, 11, 16, 17, 19 AND 20

RESPONSIVENESS SUMMARY

All the comments are submitted by VIWAPA and they all are technical in nature relating primarily to permit conditions in the proposed revised PSD permit issued on January 13, 2000.

Testing Requirements

Comment 1
In correspondence dated April 19, 1996, VIWAPA asked for approval of the use of Method 19 in lieu of Method 2 to measure stack gas volumes for purposes of the PSD permits for Units 16, 17, 19 and 20. By letter dated December 11, 1996 (Mangels to Rhymer), the Agency stated that this request was approvable. However, the proposed permit contains no reference to this clarification. VIWAPA requests explicit approval of the use of Method 19.
EPA Response
We accept that Method 19 can be used to measure stack gas volumes for the PSD permits for Units 16, 17, 19 and 20. Therefore, the PSD permit is revised accordingly.

Comment 2
In correspondence dated April 24, 1996, VIWAPA asked that the Agency approve stack testing of TSP, PM-10 and Sulfur Dioxide for Units 16, 17, 19 and 20 at maximum load only, rather than requiring tests under all load conditions. VIWAPA also made a similar request for Beryllium at Units 16 and 17. By letter dated December 11, 1996 (Mangels to Rhymer), the Agency stated that this request was approvable. However, the proposed permit requires testing at various loads.
EPA Response
In general, the higher the operating load of the units like these, the higher will be the emissions. However, VIWAPA's test results of these particular units indicate that the emission levels have a wider variability and in certain tests higher emissions have been indicated at lower load (for example, average particulate emissions for Unit 19 are 13 pounds per hour at 15 MW and 8.68 pounds per hour at maximum load). To ensure compliance with the emission limits at all loads, EPA continues to require testing at various loads. Note that this is consistent with EPA Region 2's practice of requiring tests at various loads for all the permits. On a case by case basis we also grant waiver from such requirements, for example, for Unit 16 and 17, we required testing at two loads, high and low. Beryllium is no longer a PSD pollutant therefore, we have removed the emission limits and the related requirements from this permit.

Comment 3

In correspondence dated April 24, 1996, VIWAPA asked that the Agency approve calculations of sulfur dioxide emissions for Units 16, 17, 19 and 20 and Beryllium for Units 16 and 17, using analyses of fuel for sulfur and beryllium. By letter dated December 11, 1996 (Mangels to Rhymer), the Agency stated that this request was approvable. The proposed permit is unclear on this issue.

EPA Response

A PSD permit will require initial compliance demonstration by a stack test. All subsequent compliance demonstration for sulfur dioxide may be demonstrated using the fuel analyses. The revised PSD permit clearly states this position. It should be noted that EPA reserves the right, under Section 114 of the Clean Air Act, to require stack testing for any of the permitted pollutant at any time in the future.

Comment 4

In correspondence dated April 24, 1996, VIWAPA asked that the Agency approve compliance with NSPS requirements for sulfur dioxide at Units 16, 17, 19 and 20 be done by fuel analyses and calculations. By letter dated December 11, 1996 (Mangels to Rhymer), the Agency stated that this request was approvable. VIWAPA filed a formal request for a waiver under NSPS Subpart GG. The permit does not reflect such a waiver.

EPA Response

The December 11, 1996 (Mangels to Rhymer) letter states that Subpart GG does not allow for this substitution and as such VIWAPA would need to request a waiver for complying with Subpart GG. The letter is silent on whether such a waiver would be approved. Furthermore, EPA cannot grant a NSPS waiver via a PSD permit. VIWAPA's request for such a NSPS Subpart GG waiver is being processed by the Division of Enforcement and Compliance Assistance at the Region 2 Office. VIWAPA will be notified when a decision is made on its waiver request.

Comment 5

In proposing approval of VIWAPA's request for compliance demonstration using fuel analyses, EPA specified that it be based on "average weekly content and flow". Clarify this language.

EPA Response

We have clarified the language for the compliance demonstration using fuel analyses as follows: "At the beginning of each week, VIWAPA shall review the hourly fuel flow consumption records for the prior one week period and determine the maximum hourly fuel flow consumption. The maximum hourly fuel flow consumption for the prior week and the average fuel sulfur content shall be used to calculate the sulfur dioxide emissions in pounds per hour. The sulfur dioxide emissions shall be recorded, maintained in a logbook and reported as part of in VIWAPA's quarterly excess emission report. All sulfur dioxide exceedances as determined by fuel sulfur content and fuel usage shall be reported in the quarterly report. If there are no exceedances during a quarter, a statement to this effect shall be included in the quarterly Excess Emission Report. The sulfur content of the fuel shall be determined every time a shipment is received and prorated for the fuel amount in the fuel oil tank."

Comment 6

Without any justification, the Agency has proposed to significantly modify the testing requirements for Units 16 and 17 by adding a requirement that PM-10 testing include the condensibles from Method 202 as well. There is no legal or factual basis for effectively decreasing the original permit limit for PM-10 at Units 16 and 17 by modifying the applicable testing method.

EPA Response

The original permits when issued did not appropriately address the test methods for PM-10. The review and approval of the test protocol found and rectified this anomaly. This revised PSD permit merely reflects the test methods approved during the test protocol process for the Units 16 and 17. The test methods have not been revised to effectively decrease the original permit limit for PM-10 emissions at Units 16 and 17. Note that Unit 16 was tested for PM-10 in May 1998 and test results indicate that this Unit complied with the PM-10 emission limit of 12.2 lbs/hr (stack test result- 10.5 lbs/hr). EPA will make any future decision on the PM-10 emission limits for Unit 17 based on the stack test results for that unit.

Comment 7

In its approval of test protocol for Units 19 and 20, the Agency recognized the physical limitations at VIWAPA facilities and allowed the use of test Method 5 instead of Method 201/201A for Units 19 and 20. VIWAPA subsequently requested that Method 5B should also be approvable. The proposed permit should also state that Method 5B is approvable.

EPA Response

Use of Method 5B is not appropriate for the overall PM-10 emission determination because it excludes particulate contributed to fuel sulfur.

Comment 8

Compliance tests for VOC at Units 19 and 20 were performed a few years ago. Therefore, the proposed permit should be amended by deleting the requirements for additional VOC testing at Units 19 and 20.

EPA Response

The original permits required testing of VOC at various loads and imposed both hourly and ppm limits. VIWAPA failed some of those limits. Based on the review of those test results and pursuant to VIWAPA's comments, the permit limits for VOC are now revised to reflect these test results (see response to Comment 9). EPA therefore concurs that the requirement for additional VOC testing at Units 19 and 20 should be deleted. Note that EPA reserves its right under Section 114 of the Act to require additional testing at any time in the future.

Emission Limits

Comment 9

VIWAPA believes that the revised mass and concentration limits for VOC for Units 19 and 20 are inconsistent with the test results. The mass limits in the original permit should be retained and the proposed concentration limits for Unit 19 should be increased by 20% (for sampling, emission variability) and the same mass/concentration limits for VOC be applied to Unit 20.

EPA Response

The concentration limits for VOC for Units 19 and 20 are revised to make them consistent with the information contained in the original application and the test results. Note that the test results are inconsistent for both units. In some cases, we have revised the emission limits pursuant to your concerns regarding oxygen correction. Where the test results have shown compliance the concentration limits in the original permit have been adjusted for oxygen correction. Where the test results have differed, the mass and/or concentration limits have been revised to 110% of the test result. The mass limits have been retained as in the original permit where the test results have indicated compliance.

REVISED VOC LIMITS FOR UNITS 19 and 20

LOAD	VOC--ppmdv(lbs/hr) existing permit limits	Test Results VOC--ppmdv(lbs/hr)		Revised VOC--ppmdv(lbs/hr) emission limits
	Unit 19/20	Unit 19	Unit 20	Unit 19/20
5 MW	132(56.5)	78(12.5)	10.5(1.86)	268(56.5)
10 MW	65(28)	43(9)	13.4(2.69)	89(28)
15 MW	30(17.5)	16.7(4.5)	10.6(2.81)	37(17.5)
18-20 MW	9(5.6)	10.5(2.95)	12.1(3.58)	13(5.6)
MAX	4(2.4)	8.8(2.88)	8.1(2.65)	10(3.1)

Comment 10

The emission limit table structure is provided as % of load. VIWAPA requests that the operating ranges 5-10 MW, 10-15 MW, 15-18 MW, 18-20 MW and 20-Max MW should also be included.

EPA Response

VIWAPA requested permit revisions related to emission limits for PM-10 and VOC for Units 19 and 20 and certain other items related to testing protocols. EPA therefore maintained the emission limit table structure as % load for other pollutants as in the original PSD permits. In order to further streamline this permit we agree with VIWAPA's request. Therefore, the final revised permit includes CO emission limits according to the operating ranges rather than % load for Units 16, 17, 19 and 20.

Miscellaneous Corrections

Comment 11

The original permit for Unit 16 allowed the use of the Unit at a NOx emission rates above 59.1 pounds per hour and 42 ppmdv @ 15% oxygen. This operating mode seems to have been deleted from the revised permit.

EPA Response

The revised permit continues to allow the operation of Unit 16 at a NOx emission rate at 59.1 pounds per hour and 42 ppmdv @ 15% oxygen. EPA, however, concurs that the following operating mode and related permit conditions were deleted inadvertently in the combined permit.

"While operating in simple or combined cycle mode, using the old combustion portion of the generating unit, the NO_x emissions shall not exceed 77.4 pounds per hour (lbs/hr) calculated as NO_2. The NO_x emission rate shall be tested using EPA Reference Method (RM) 20 (40 CFR 60 Appendix A). These tests shall be conducted according to a written protocol approved by EPA prior to any testing. Three test runs shall be conducted at various loads and compliance shall be based on the average NO_x emission rate of these test runs. Except when operating at low loads (less than 35% capacity) as reserve, the concentration of NO_x in the exhaust gas shall not exceed 55 parts-per-million by volume (ppmdv) on a dry basis, corrected to 15% oxygen, as determined by continuous emission monitoring. Operation at the low load can not exceed 25% of the total annual operating time during a rolling 12-month period."

We have now included the above condition in the final revised permit.

Comment 12

The Fact-Sheet should also include reference to correspondence between VIWAPA and EPA dated April 19, 1996 (Rhymer to Eng), April 24, 1996 (Rhymer to Eng), September 18, 1996 (Rhymer to Eng) and December 11, 1996 (Mangels to Rhymer). The June 6, 1997 correspondence should be corrected to "June, 16".

EPA Response

The PSD permit Fact-Sheet includes a chronology of events after a formal submittal of a PSD application to track formal review process. VIWAPA submitted a formal permit revision request on December 19, 1996. EPA, however, agrees with the commenter that the above mentioned correspondence are part of the overall facility file and are in the record. The "June 6" date in the Fact-Sheet has been changed to "June 16".

Comment 13

In the Project Description, revised permit limit of "16 lbs/hr" for Unit 20 should be changed to "18 lbs/hr".

EPA Response

EPA concurs with this comment, therefore, the "Project Description" has been revised accordingly.

Comment 14

In Section E (page 13), the heading for the section on Units "11 and 12" should be corrected to Units "10 and 11".

EPA Response

EPA concurs with this comment, therefore, the heading for Section E has been revised accordingly.

Comment 15

Section IV, Other Permit Conditions should not include general reference to NSPS and state/local requirements. This may result in unjustifiable double violations (this Permit and applicable NSPS). Section IV should be deleted.

EPA Response

Under the Clean Air Act (CAA) and the State authorities many regulations will apply to the Units covered under this PSD permit. These other regulations may be overlapping and/or complementary. EPA Region 2's practice is to include a general condition in a PSD permit to alert the permittee to such other regulations and associated additional compliance obligations. Note that such a general condition is also consistent with Section 504(a) of the CAA which requires that a permit should ensure compliance with all applicable requirements.

Comment 16

Attachment I potential emissions for Units 19 and 20 should show changes only for PM-10 emissions. The other emissions should not change.

EPA Response

EPA concurs that potential emissions for Units 19 and 20 for NOx, CO and Sulfur Dioxide should not change. We will correct a typographical error in the Sulfur Dioxide emissions for Unit 19 and change the emissions from 276.8 tons per year to 278.4 tons per year. The emissions for PM-10 and VOC have changed for Units 19 and 20 to reflect the revised permit limits for these two pollutants. Note that the Attachment I would reflect any changes made in the final revised PSD permit.

REGION 2
NEW YORK, N.Y. 10007

June 7, 2024

Dayna Clendinen
Virgin Islands Housing Finance Authority
3202 Demarara Plaza, Suite 200
St. Thomas, VI 00802-6447

RE: Environmental Review for the Acquisition of the Liquid Propane Gas (LPG) Infrastructure, St. Croix District and St. Thomas/St. John District, U.S. Virgin Islands

Dear Ms. Clendinen:

In accordance with the National Environmental Policy Act (NEPA) and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 CFR 1500-1509), the United States Environmental Protection Agency (EPA) has reviewed the Early Notice and Public Review of a Proposed Activity in a Federal Flood Risk Management Standard Designated Floodplain (FFRMS), published on May 24, 2024 by the Virgin Islands Housing Finance Authority (VIHFM).

EPA appreciates the outreach from the VIHFM to provide comments on the proposed action to acquire Liquid Propane Gas (LPG) infrastructure in order to meet energy demands across the U.S. Virgin Islands more efficiently. EPA recognizes under the U.S. Department of Housing and Urban Development's Code of Federal Regulations for determination of Categorical Exclusions (24 CFR 58.35).

In accordance with 24 CFR 58.5, we recommend that during the evaluation of practicable alternatives to the acquisition of the LPG infrastructure, that VIHFA consider the following:

- **Environmental Justice** – In accordance with Executive Order 14096 - Revitalizing Our Nation's Commitment to Environmental Justice for All (Signed April 21, 2023), EPA encourages VIHFA to conduct a thorough review of potential impacts to communities across the U.S. Virgin Islands with environmental justice concerns and the direct and indirect impacts that may affect these communities due to the proposed action to inform decision-making regarding the practicable alternatives considered.
    - We encourage the use of federal and local tools to make environmental justice determinations as well as the active inclusion of community members who many not regularly have access to the public commenting process to ensure that those who may experience impacts due to the acquisition of equipment for a facility that is not increasing in unit size or output.

    - This could be conducted through community information sessions, media outreach through radio or social media, and with partnering with active environmental community-based organizations across the U.S. Virgin Islands. EPA is continuing to foment our efforts in this capacity and is willing to support VIHFA to best achieve these outcomes.
- **Air Quality –** In accordance with the Clean Air Act (42 U.S.C. 7506 (c) and (d)), EPA suggests VIHFA document the HUD implementation plan for which this project has established conformity and attainment under existing National Ambient Air Quality Standards for the project area. While EPA understands the scope to be acquisition of equipment, because this equipment is currently privately owned and operated, EPA recommends this information be disclosed prior to operations by a public government entity in order to meet regulations. If there are no requirements needed under this statute, we recommend that is clearly documented.

Thank you for the opportunity to provide comments on this Early Public Notice. We also appreciate the last minute availability to speak directly with your team this week to fully understand the project better so that we could provide comments that will hopefully add value to the work that your team is executing. EPA looks forward to a response to our comments, and we are committed to continuing to work with your team, especially as full projects come to fruition. Should you have questions on our comments noted above or related to this project, please contact me at benjamin.arielle@epa.gov or 212-637-3650.

Sincerely,

Arielle M. Benjamin
Environmental Review Team
Lead Reviewer

Cc: Jose A. Cedeño Maldonado, Regional Environmental Officer, Region IV, HUD
Donna Mahon, Field Environmental Officer, Disaster Recovery, Region IV, HUD
Mark Austin, Supervisor, Environmental Reviews and Strategic Programs Section, Region 2, US EPA

From: Alanah Lavinier
To: Benjamin, Arielle
Subject: RE: Environmental review for the Acquisition of the Liquid Propane Gas (LPG) infrastructure - USVI
Date: Monday, June 10, 2024 6:07:00 PM
Attachments: image002.png

Good afternoon Ms. Benjamin,

Thank you for your comments. We have reviewed your comments and made sure to include and refer to them when conducting the environmental review. We have taken into consideration environmental justice as well as air quality matters. Our CEST includes information on air quality matters to include discussion on the utilization of liquid propane vs diesel as well as figures documenting our air quality permits. Our combined notice is available for review on VIHFA.gov.

Thank you so much for your comment and input in this very important proposed activity.

Alanah Lavinier
Director- Policy, Procedures, and Regulatory Services
Virgin Islands Housing Finance Authority
CDBG-DR and CDBG- MIT Division

From: Benjamin, Arielle <Benjamin.Arielle@epa.gov>
Sent: Friday, June 7, 2024 11:52 AM
To: Dayna Clendinen <dclendinen@vihfa.gov>
Cc: Austin, Mark <Austin.Mark@epa.gov>; Damali Rogers <drogers@vihfa.gov>; Alanah Lavinier <alavinier@vihfa.gov>; Eugene Jones, Jr. <ejones@vihfa.gov>; Mahon, Donna M <Donna.M.Mahon@hud.gov>; Jose.A.CedenoMaldonado@hud.gov
Subject: RE: Environmental review for the Acquisition of the Liquid Propane Gas (LPG) infrastructure - USVI

Good morning Ms. Clendinen,

We appreciate the opportunity to review the Early Notice of the environmental review. Please see attached for our comments, we are available to discuss if you have any questions. We also appreciate your team taking the time to meet with us on short notice this week to better understand the scope of the project.

Have a good weekend,

Arielle M. Benjamin
Environmental Engineer, Environmental Reviews and Strategic Programs
Environmental Justice, Community Engagement and Environmental Reviews Division
U.S. Environmental Protection Agency, Region 2
212.637.3650

From: Dayna Clendinen <dclendinen@vihfa.gov>
Sent: Thursday, May 23, 2024 7:20 PM
To: - USACE <Karen.M.Urelius@usace.army.mil>; - USACE <Jose.A.Alicea-Pou@usace.army.mil>; Soto, Jose <Soto.Jose@epa.gov>; felix_lopez@fws.gov; – National oceanic... <pace.wilber@noaa.gov>; – National oceani <jennifer.schull@noaa.gov>; sharla.azizi@fema.dhs.gov
Cc: Damali Rogers <drogers@vihfa.gov>; Alanah Lavinier <alavinier@vihfa.gov>; Eugene Jones, Jr. <ejones@vihfa.gov>
Subject: Environmental review for the Acquisition of the Liquid Propane Gas (LPG) infrastructure - USVI

Good day, Federal Agency Partners,

This is to give notice that the Virgin Islands Housing Finance Authority (VIHFA), under their authority as a Responsible Entity pursuant to 24 CFR Part 58.4, is currently undergoing the environmental review for the acquisition of the Liquid Propane Gas (LPG) infrastructure. Please find the link below to our early notice for the acquisition of VITOL LPG infrastructure within the Virgin Islands Water and Power Authority Plant.

Please visit cdbgdr.vihfa.gov for more information.

Kind Regards,
DClendinen
Dayna **Clendinen**
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VIHFA
VIRGIN ISLANDS
Housing Finance Authority