

**Port Hamilton Refinery and Transportation LLLP
112(r) CAA General Duty Clause Inspection**

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| Stationary Source | Port Hamilton Refinery and Transportation LLLP 1 Estate Hope, Christiansted, St. Croix, VI 00820 |
| Date of Inspection | September 25 – 29, 2023 |
| Description of Activities | <ul style="list-style-type: none"> • Opening meeting with facility representatives • File review • Meeting with virtual attendees • Facility Tour • Closing meeting with facility representatives |

STATIONARY SOURCE INFORMATION

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|-------------------------------------------------------------|---------------------------------------------------|
| | |
| Facility/Site Identifier: | N/A |
| Media Number: | N/A |
| NAICS: | 32411 (Petroleum Refineries) |
| SIC: | 2911 (Petroleum Refining) |
| | |
| Facility/Site Personnel Participating in Inspection: | |
| Catherine Elizee | PHRT / Environmental Manager |
| Fermin Rodriguez | PHRT / Vice President and Refinery Manager |
| Shay Glasgow | PHRT / Operations Refinery Shift Supervisor (RSS) |
| Michael T. Francois | PHRT / Training Supervisor |
| Shawn Smith | PHRT / Process Engineer |
| Coral Megahy | PHRT / Process Engineer |
| David Johnson | PHRT / Owner |
| Dave Long | Advisian (PHRT Contractor) |

| | |
|-------------------------------|-------------------------------------------------------------------------------------|
| Bruce L. Kelly | VI Territorial Emergency Management Agency (VITEMA) / Deputy Director of Operations |
| Kevin de Lande | VI Fire and Emergency Medical Services (FEMS) / Fire Marshal |
| | |
| USEPA Inspection Team: | |
| Dwayne Harrington | USEPA Region 2 / Inspector |
| Karl Lindberg | USEPA Region 2 / Inspector |
| Sarah Biscardi | ERG (Contractor) / Inspector |

Inspection Authority

Pursuant to Section 112(r)(1) of the Clean Air Act (“CAA”), 42 U.S.C. § 7412(r)(1), the owners and operators of stationary sources producing, processing, handling, or storing substances listed pursuant to Section 112(r)(3) of the CAA, 42 U.S.C. § 7412(r)(3), or any other extremely hazardous substance, have a general duty in the same manner and to the same extent as under 29 U.S.C. § 654 to identify hazards that may result from accidental releases of such substances using appropriate hazard assessment techniques, to design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases that do occur.

This report (“2023 Inspection Report”) presents observations made by the USEPA Inspection Team during or in follow-up to the CAA Section 112(r)(1) General Duty Clause (“GDC”) inspection conducted by EPA at the Port Hamilton Refinery and Transportation LLLP (“PHRT”) facility located at 1 Estate Hope, Christiansted, St. Croix, in the U.S. Virgin Islands (the “Facility”) on September 26-29, 2023 (the “2023 GDC Inspection”), as well as the earlier GDC inspection conducted by EPA at the Facility on September 20 -25, 2022 (the “2022 GDC Inspection”).

During the 2023 GDC Inspection, the USEPA Inspection Team held an opening conference with Facility management to explain the purpose of the inspection. The Facility management presented a brief overview of the current status of the refining process and chemicals remaining at the Facility after recent de-inventory processes were conducted earlier in 2023. While at the Facility, inspectors toured the following process units as part of the 2023 GDC inspection: #5 Crude Unit; #6 Crude Unit; #4 Platformer; #1 Liquefied Petroleum Gas (“LPG”) Treater Unit (“LPG Unit #1”); #2 LPG Treater Unit (“LPG Unit #2”); and the coke handling and

storage areas in Dome 1 and the Western Coke Pit. A meeting was held with virtual attendees regarding inspections, maintenance, and fitness-of-service assessments of Facility process units. The USEPA Inspection Team held an inspection close-out conference with Facility management on September 28, 2023, to discuss their summary findings and future requests for additional information. Representatives from the U.S. Virgin Islands Territorial Emergency Management Agency (“VITEMA”) and from the Virgin Islands Fire and Emergency Medical Services were present during portions of the inspection.

Facility Information

PHRT owns and operates the eastern portion of the approximately 1,500-acre former HOVENSA oil terminal/refinery located on the south coast of St. Croix (the eastern portion is referred to herein as the Facility or the “refinery”).

The Facility includes at least 34 process units. Some of these are inactive. In addition to these units, PHRT has some storage areas (*e.g.*, the coke pit storage outside of the delayed coker system, the sulfur storage area, the sulfur pit, the chemical storage area, and the hazardous waste storage area) that are not considered process units. Additionally, PHRT owns at least 42 above-ground storage tanks at the Facility, many of which being assumed empty.

The Facility’s refinery operations are currently idle, and Facility personnel reported that PHRT’s plans to restart and operate the refinery are on an undetermined timeline. The adjacent, remaining portion of the formerly combined oil terminal/refinery complex is currently owned and operated by Ocean Port Terminals (“OPT”).

There are currently forty-seven employees working at the Facility and under contract with PHRT. Each of these employees is associated with a third-party contractor, Pinnacle Services. These Pinnacle Services employees are comprised of primarily former HOVENSA and/or Limetree Bay Refining (“LBR”) operators and unit supervisors. PHRT generally has two twelve-hour shifts per day. During the daytime shift, there are three area Lead Shift Supervisors and six operators on-site. During the night shift there are four operators. The PHRT maintenance department consists of approximately twenty people. Four environmental contractors assist PHRT in implementing its air, water, and waste management compliance programs.

Background Information

The refinery that is currently owned by PHRT started operating under the Hess Oil Virgin Islands Corporation (“HOVIC”) in 1965. Control of the refinery shifted in 1998 to a joint venture named HOVENSA, which was formed by Amerada Hess Corporation, the parent company of HOVIC, and Petroleos de Venezuela S.A.

In 2011, HOVENSA, the United States, and the U.S. Virgin Islands entered into a judicial consent decree that required various environmental commitments from HOVENSA. HOVENSA ceased operations at the Refinery in 2012. After being idled for several years, HOVENSA declared Chapter 11 bankruptcy in 2015, and the refinery was acquired during bankruptcy proceedings by LBR in 2016. LBR intended to restart operations.

In 2019, in preparation for the startup by LBR, a contractor for LBR reviewed the previous operator's mechanical integrity documentation and updated portions of it for LBR. In 2020, LBR began the process of sequentially starting up refinery units, beginning with Flare No. 8. Additional units were also started up subsequently over the next several months, and multiple upsets resulted.

On February 25, 2021, Limetree Bay submitted to EPA a Risk Management Plan ("RMP"), prepared for the combined refinery and terminal operations [REDACTED].

On May 14, 2021, EPA issued an Order pursuant to Section 303 of the CAA to LBR requiring the refinery to cease operating for a maximum of 60 days and to have its environmental and process safety programs audited. This order was issued in response to the releases at the refinery that occurred over the course of the attempted startup. These included the following:

On February 4, 2021, a mixture of oil and water was emitted from Flair #8, impacting 193 residences;

From April 19-22, 2021, hydrogen sulfide levels measured at Flair #8 rose to an order of magnitude over the permitted limit. There were many odor complaints registered in the community, and the VI Department of Planning and Natural Resources ("DPNR") closed schools and vaccination centers;

From May 5, 2021 to May 7, 2021 odors were reported and hydrogen sulfide limits were exceeded, and

A flaring incident occurred on May 12, 2021. A large flame was visible at Flair #8 with a trailing plume of emissions. Hydrogen sulfide exceedances were recorded, and after this incident, LBR suspended operations.

On June 21, 2021, LBR announced that it was suspending plans to restart the refinery indefinitely. The refinery remained idled until it was purchased by PHRT in January 2022. On August 4, 2022, petroleum coke that had been stored at the refinery for over a year began smoldering. During the 2021 start-up attempt by LBR, the coker unit was unable to complete its start up, but some coke had been produced and was being stored. The accepted safety practice for storing petroleum coke is to move the material frequently and to keep it moist with

the application of water. If this is not done, the coke can begin to smolder as it did in this instance.

Following a joint effort by PHRT, its contractors Pinnacle Services, Total Safety, Williams Fire and Hazard Control and Savage, as well as others, the smoldering coke was extinguished on August 26, 2022 - 22 days after the incident began.

This incident caused EPA to schedule the 2022 GDC Inspection.

Prior to the 2022 GDC Inspection, EPA requested that PHRT provide a refinery unit chemical inventory, including a list of chemicals for each specific process unit, and PHRT provided the inspectors with an inventory. The inventory identified, among other things, ammonia in the Ammonia Drum, LPG in LPG Unit #3, and an enriched amines solution that contained hydrogen sulfide stored within the Amine Units.

The 2022 Inspection Report for the 2022 GDC Inspection contained conclusions, among other things, that “numerous examples of corrosion, including extreme corrosion and in many cases to a degree resulting in extreme deterioration (exfoliation), were observed on process valves, flanges, pipes, nuts/bolts, and pressure relief devices in all unit processes.”

After PHRT received the EPA 2022 Inspection Report for the 2022 GDC Inspection, PHRT tasked its contractor, Advisian, to review selected pieces of process equipment and mechanical integrity documentation from LBR’s 2020 attempted refinery re-start. Advisian’s review resulted in a report (the November 2022 Advisian Report) that contained Advisian’s conclusion [REDACTED]

[REDACTED]

EPA submitted the November 2022 Advisian report to Eastern Research Group (“ERG”), an EPA engineering contractor, whose staff reviewed the November 2022 Advisian Report. ERG included the following conclusion in ERG’s May 5, 2023, Report to EPA: [REDACTED]

[REDACTED]

On December 5, 2022, PHRT entered into an order on consent with EPA under the CAA (the “GDC Order”) to address conditions identified during the 2022 GDC Inspection. The GDC Order required the removal of three highly hazardous materials from the refinery – ammonia from

the Ammonia Drum, LPG from LPG Unit #3, and the enriched amines solution that contained hydrogen sulfide from the Amine Units -- all which were present in process equipment. This work was required because of the condition of the containment vessels and piping and valves. The GDC Order work took place during the spring and summer of 2023. During this work, system evaluations were made by PHRT that included shell thickness measurements on the ammonia system piping and valves, and PHRT identified approximately 160 valves and stretches of piping that required some degree of repair prior to removal of the related materials. As a result of the condition of the systems and the hazards associated with the chemicals, replacement of piping and valves was not possible. It was decided that encapsulation would be the preferred approach to address the conditions – which involved wrapping the valves and piping with carbon fiber and then applying a resin to the carbon fiber – providing a hardened wrap. Approximately 175 valves and stretches of piping were encapsulated in the ammonia system, and 7 valves were encapsulated in the LPG system.

The materials were removed by the end of July 2023, leaving the rinsates from the ammonia and amine removals for disposal. EPA scheduled a second GDC inspection for September 25-29, 2023 (the 2023 GDC Inspection), and the results of that inspection are described below.

General Duty Clause Inspection Summary

Identification of Hazards

Hazard Assessment/Process Hazard Analysis

The general duty set forth in Section 112(r)(1) of the CAA for owners and operators of stationary sources producing, processing, handling, or storing substances listed pursuant to Section 112(r)(3) of the CAA, or any other extremely hazardous substance, includes the identification of hazards that may result from accidental releases of such substances using appropriate hazard assessment techniques.

In the 2022 GDC Inspection Report, the inspectors concluded that “PHRT could not provide a current hazard assessment for the processes that presently contain extremely hazardous substances at the Facility. A hazard identification and review, including process configuration, maintenance, hazard recognition, and the effectiveness of emergency shutdown and response procedures, has not been performed by PHRT.”

During both the 2022 and 2023 GDC Inspections, the inspectors were not provided with any hazard assessments or process hazard analyses (“PHAs”) that were performed by PHRT. The only documentation of hazard reviews or PHAs that was provided to inspectors pursuant to the 2022 and 2023 GDC Inspections were PHAs that were conducted by or for previous owner/operators. Most of these PHAs were conducted by LBR, prior to LBR’s 2021 facility

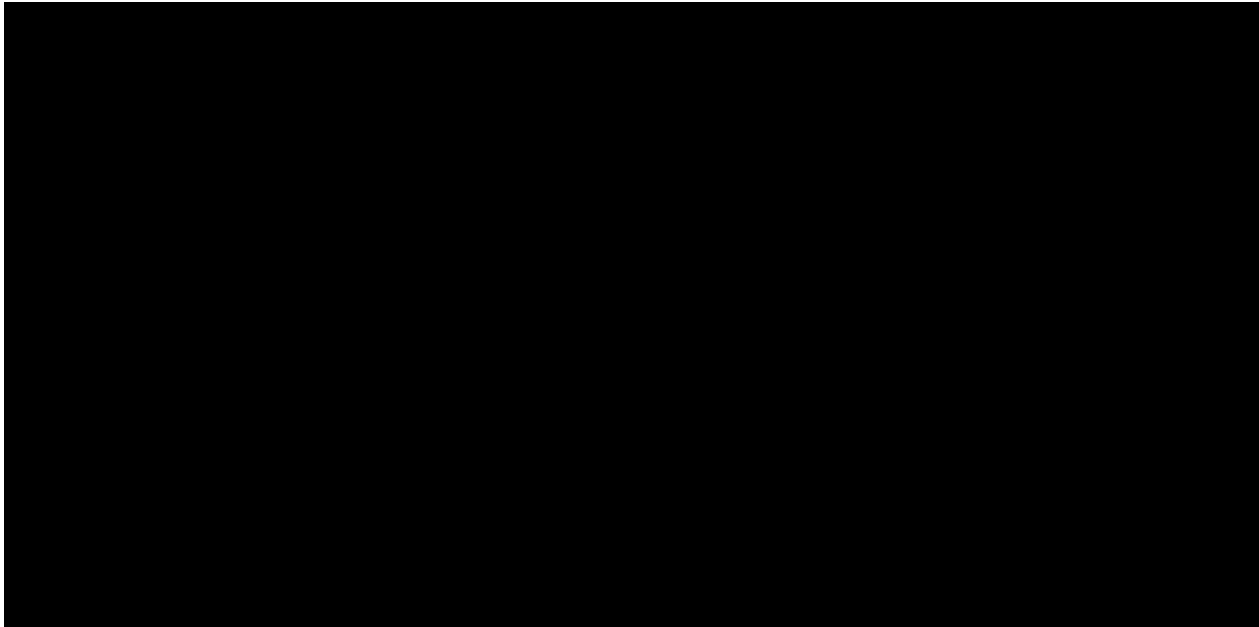
shutdown, and for some units the most recent PHAs were conducted by HOVENSA before they ceased operations.

The PHRT representative informed the inspectors that PHAs will not be re-evaluated until process re-start. Additionally, PHRT provided the inspectors with PHAs for certain process units that were over 10 years old and provided no indication that the hazards in these processes were reviewed more recently. For example, for some units, the hazard evaluations were conducted in 2006 and 2011, and full documentation was not provided for the PHA conducted in 2011. Therefore, an adequate review of hazards posed by the current operating configurations at the Facility has not been conducted given the Facility's current status as an idled petroleum refinery with process equipment in various stages of being de-inventoried.

PHRT did not conduct any hazard reviews or PHAs during the time it has owned the Facility. To the extent PHRT seeks to rely on earlier PHAs conducted by or for prior operators of the Facility, those PHAs did not reflect the current process activities and conditions, and in addition, those PHAs may not have been sufficient when they were performed. Further, for any PHAs from prior operators, PHRT does not have a recommendation tracking system in place to address in a timely manner recommendations from those earlier PHAs, and it has not performed and/or documented any actions taken or completed to address recommendations from the PHAs. In addition, the PHAs from prior operators inconsistently evaluated effects of extreme weather and natural hazards. Although the PHA methodology states that extreme weather events are considered credible and should be addressed in these assessments, there are no scenarios detailing the potential risks posed by extreme weather from meteorological events (*i.e.*, hurricanes, high winds, flooding, etc.).

In the ERG Report produced for EPA (finalized in May 2023), [REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]



Facility Material Inventories

During the 2023 GDC Inspection, the inspectors observed discrepancies in both inventories and storage locations of materials at the Facility provided between the 2022 and 2023 GDC Inspections. In particular, at the time of the 2022 GDC Inspection, PHRT did not identify any LPG present in LPG Units #1 and #2, but during the 2023 GDC Inspection, PHRT identified/confirmed the presence of LPG in those two units. The Facility representative, [REDACTED], stated during the 2023 GDC Inspection that LPG would have been present in LPG Units #1 and #2 at the time of the 2022 inspection. The RMP submitted under the name “Limetree Bay” on February 25, 2021, [REDACTED], identified LPG in these units.

As another example, the inspectors observed that the total quantity of hydrocarbons reported as being present in #5 Crude Unit and #6 Crude Unit prior to the 2022 GDC Inspection was 834 barrels, consisting of a mixture of oils such as naphtha and diesel. [REDACTED]

[REDACTED]

Inventories of materials have varied significantly in inventories provided to EPA by PHRT, including several instances in which PHRT has over-reported, under-reported, and/or failed to report the presence of materials in the LPG process storage areas entirely. As such, PHRT has provided to EPA inaccurate and/or out-of-date chemical inventory records of either current and/or historical amounts of flammables liquids present in idled equipment located at the Facility.

PHRT has a general duty to identify hazards and design a safe facility, and this is not possible without accurately knowing and identifying the types and amounts of materials present at the Facility.

Design a Safe Facility

The general duty pursuant to Section 112(r)(1) of the CAA for owners and operators described above includes a general duty to “...design and maintain a safe facility taking such steps as are necessary to prevent releases.”

In the 2022 GDC Inspection Report, the inspectors noted that “PHRT could not provide documentation that its process design complies with recognized and generally accepted industry practices. PHRT presented electrical classification area schematics that had been prepared by HOVENSA, and PHRT could not provide pressure relief design and inspection records”.

As described above, inventories of materials have varied significantly in documents and information provided to EPA by PHRT, including several instances in which PHRT has over-reported, under-reported, and/or failed to report the presence of materials in the LPG process storage areas entirely. As such, PHRT has provided to EPA inaccurate and/or out-of-date chemical inventory records regarding the types of materials, the locations of materials, and the quantities of materials that are or were present at the Facility at the time inventories were provided.

PHRT has a general duty to identify hazards and design a safe facility, something which is not possible without accurately identifying the types and amounts of materials present at the Facility, including in its idled process equipment.

PHRT does not consistently comply with applicable RAGAGEP from American Petroleum Institute (“API”) and National Fire Protection Association (“NFPA”) with respect to design, operation, and maintenance of its process equipment. The Facility managers rely on HOVENSA Engineering Standards to cover the design, installation, operation, and maintenance of a wide range of process equipment, however, the inspectors did not see instances where the current operators of the Facility referred to or implied compliance with the specific RAGAGEP. Specifically, the HOVENSA Engineering Standards do not refer to or imply compliance with the following: API 510, 570, or 579 as applicable RAGAGEP for pressure vessels, piping, valves, and storage tanks; NFPA 1, 101, 30, 58, 400, or 704 as applicable RAGAGEP for process operations and handling of applicable chemicals. The inspectors observed the following:

- A lack of appropriate signage on flammables liquids storage tanks, specifically in the #5 Crude Unit, #6 Crude Unit, LPG Unit #1, and LPG Unit #2 areas, consistent with the requirements of NFPA 30 (2021) and NFPA 704 (2022)

- Trip hazards throughout the #5 Crude Unit and #6 Crude Unit areas, specifically where changes in elevation in walking paths were left unmarked (see photo 38, Appendix A). Section 7.1.6.2 of NFPA 101 (2023).
- Inconsistent labeling of process piping in the #5 Crude Unit, #6 Crude Unit, LPG Unit #1, and LPG Unit #2 areas such that labeling throughout the Facility did not consistently indicate pipe contents and/or direction of flow. Section 3.1 of ASME A13.1 (2015).
- The presence of combustible materials (e.g., wood, vegetation) in the vicinity of process equipment [REDACTED] as well as vegetation growing from the insulation [REDACTED]. Section 10.13.2.1 of NFPA 1 (2021).
- Missing name plates on tanks and vessels throughout the Facility, [REDACTED] [REDACTED] [REDACTED] Section UG-119 of ASME BPVC (2011)
- [REDACTED]

These practices are inconsistent with RAGAGEP and OSHA requirements for worker safety, and they are documented by photographs taken by the inspection team.

The environmental staff at PHRT are highly educated, very experienced professionals and were very generous with their time and the technical expertise during EPA’s investigations. However, given the size (both in terms of number of process units and area) and condition of the refinery, the number of staff (all contractor) seems to be insufficient, even for the idled operations. The refinery – and current staff - would benefit from the assistance of additional on-site senior petroleum process engineering resources.

Maintain a Safe Facility

Condition of Process Equipment

As described above, during the work conducted by PHRT pursuant to the GDC Order during the spring and summer of 2023, PHRT identified approximately 160 valves and stretches of piping that required some degree of repair prior to removal of the materials based upon system evaluations made by PHRT that included shell thickness measurements conducted on the ammonia system piping and valves. As a result of the condition of the systems and the hazards associated with the chemicals, replacement of piping and valves would not be possible. It was decided that encapsulation would be the preferred method – which involved wrapping the valves and piping with carbon fiber then then applying a resin to the carbon fiber – providing a hardened wrap. Approximately 175 valves and stretches of piping were encapsulated in the ammonia system, and 7 valves were encapsulated in the LPG system (LPG Unit #3).

The 2022 GDC Inspection Report contained the conclusion, among other things, that “... numerous examples of corrosion, including extreme corrosion and in many cases to a degree resulting in extreme deterioration (exfoliation), were observed on process valves, flanges, pipes, nuts/bolts, and pressure relief devices in all unit processes.”

Similar conditions were observed during the 2023 GDC Inspection, including regarding LPG Units #1 and #2. Significant corrosion of process equipment, including piping, flanges, joints, elbows, straight sections of piping, and vessels, generally throughout each of the areas observed during the Facility walk-through. The scope of surface corrosion observed in the inspection and documented in the photographs appears to extend beyond the level of being superficial and is indicative of a lack piping system integrity such that a potential for loss of containment exists. The inspectors observed areas of potentially significant localized corrosion, pitting, and flaking/loss of pipe coating in multiple areas of the Facility. This is inconsistent with RAGAGEP; specifically, Section 4.3.2.6 of API 571 (2011) states, “*Prevention / Mitigation Surface preparation and proper coating application are critical for long-term protection in corrosive environments.*”. The Caribbean is such a corrosive environment. These conditions are documented by photographs taken by the inspection team.

Maintenance/Mechanical Integrity programs

In the 2022 GDC Inspection Report, the inspectors noted that “PHRT does not have a preventative maintenance program, and facility personnel stated that there are currently no formal process unit inspections. A preventative maintenance program should include the following: schedules for inspections of equipment, records of when inspections and tests were last conducted, records of any repairs that have been made, the schedule for future inspections, tests, and/or replacement of equipment, as well as documentation demonstrating that inspections comply with applicable industry codes and standards”.

During the 2023 GDC Inspection, the inspectors again observed a lack of documentation of a comprehensive maintenance/mechanical integrity program that identifies and addresses equipment deficiencies.

The US EPA Inspection team reviewed maintenance/mechanical integrity documentation provided by PHRT for the LPG Unit #1 and LPG Unit #2. Almost all the documents seemed to date from the time of the previous owner/operators. While industry standards typically allow a new owner to use maintenance/mechanical integrity documents from a previous owner following an ownership change, the new owner would be expected to use those documents to inform, conduct, and document future inspections, integrity tests, and/or repairs. In the case of the mechanical integrity documents PHRT provided, the historic documents did not appear sufficient even for the former owner/operators, let alone the current operators. Specifically, those documents were not complete mechanical integrity assessments based on specified

industry standards (including, for example, API 570, 571 and 579) but documents used to record various information during certain repairs. While individual parts of a given process unit may have been evaluated during the relevant assessments, and in some cases hydrotesting was performed, the documents do not demonstrate that full fitness-of-service tests for the entire processes were ever completed by the previous owner.

While these documents occasionally identified maintenance deficiencies, the corresponding corrective actions were often marked with notes stating that the repairs should be made “as needed” or “as required,” without further context as to when such repairs would be deemed necessary. Additionally, when repairs were recommended in those documents, PHRT often did not provide any accompanying follow-up documents to demonstrate that those repairs were ever made by a previous owner/operator or by PHRT.

For example, PHRT provided a document dated February 15, 2020 for the purpose of demonstrating that adequate mechanical integrity tests were performed for the “3201-LPG 1 RO Water Line” within LPG Unit #1 (Unit 3201). That document, completed by contractor Elite Turnaround Specialists, Ltd., includes a job completion sign off page that states, “test to be performed at a later date,” but PHRT did not provide any tracking documentation to show whether that testing was ever performed.

In another example, dated February 6, 2020, Elite Turnaround Specialists, Ltd. performed an inspection of LPG Unit #1 (Unit 3201), equipment number 0240, which includes piping line number 32-208-C-2” and 32-209-C-2”. Deficiencies identified included, “Build Scaffolds as Required, Replace Bolting as Required, Replace Block Valves as Required, Refurbish Block Valves as Required, Replace Orifice Plates as Required, Hydrotest and Reinstate Instrumentation on Piping System. (CR1555) Replace approx. 20’ of 2” piping Line 32-208-C-2” Service 2” Caustic Line from T-3206 to E-3202 as referenced in dwg. 3201-1060.” These general statements do not specifically state when repairs or replacements are required in this area of the process, and neither PHRT nor its inspection contractors have provided documentation of when or if these repairs or replacements have been made. The documentation provided indicates that the only action from this inspection Report that generated an open work order is CR1555 - to replace twenty feet of process piping.

PHRT also did not provide documentation of completed repairs or replacement based on results from the mechanical integrity inspections for LPG Units #1 and #2 conducted between 2018 and 2020. Based on the above example, no documentation was received to confirm the completion of work order CR1555, and the inspectors did not observe new piping in this area during the inspection. Specifically, the inspection team noted a two-inch valve on this piping

run between LV-146 and E-3202 with severe corrosion as well as general surface corrosion present on the piping itself.

A typical mechanical integrity assessment following industry standards would also specify the next time a full internal and/or external integrity test would be required. The results from certain hydrotests may have been provided with “pass/fail” determinations, but nowhere in any of the provided documents does the documentation specify how many years would be required before the process units would be due for another evaluation. In assessing needs for repair or replacement related to corrosion, PHRT’s documentation did not provide a corrosion rate through comparison with historical thickness readings, a determination of acceptable limits of corrosion, nor a determination of remaining life for corroded process piping and equipment. At the time of the inspection, David Long of Advisian stated that he could provide such comparison records, but no such records were included in the “mechanical integrity” documents provided by PHRT. Mr. Long also stated during the inspection that process vessels are on a five-and-ten year inspection schedule. EPA notes that this would likely mean that many vessels would be due for a five-year assessment in 2024 as it appears that they were last inspected in 2019.

During the Facility tour, in addition to the corrosion that was observed as described above, the inspectors also observed:

- Multiple blocked storm drains causing standing water in many areas, and algae growth in some of those areas of standing water [REDACTED]
[REDACTED]
[REDACTED] Section 63.3.1.16.1 of NFPA 1 (2021); Section 22.11.4.2 of NFPA 30 (2021).
- Containment structures present around multiple storage vessels exhibited severe corrosion and/or were in disrepair such that the structures would not serve their purpose as containment in the event of a release of material(s). Section 22.11.2.4 of NFPA 30 (2021); Section 6.1.3.2 of NFPA 400 (2022).
- Electrical conduits lacking proper maintenance, such as deteriorated/damaged housing or supports [REDACTED]. NFPA 70 (2014) Section 110.12 (B).

- Corroded walkways [REDACTED] and unsafe conditions on elevated platforms lacking proper signage to prevent access. 29 CFR 1910.22(a)(3); 29 CFR 1910.22(d)(2) and (3).
- Cracks in fireproofing and piping supports in the # [REDACTED] areas [REDACTED] such that unsafe conditions are present, potentially resulting in falling concrete [REDACTED]. Section 5.5.5 of API 571 (2016); Section 9.1 of API RP 2218 (2013); Section 9.3.1 of API RP 2218 (2013).
- Corrosion on saddles and supports for tank [REDACTED], tank E [REDACTED], tank supports [REDACTED]. Section 63.4.2.3.5 of NFPA 1 (2021); Section 6.8.3.2.(1) of NFPA 58 (2024).
- Open and/or corroded flanges and piping [REDACTED]. Section 21.3.1.6.3.1 of NFPA 400 (2022); Section 5.9.7.1.(5) of NFPA 58 (2020).
- A lack of proper documentation for inspection and maintenance of fire extinguishers. Specifically, fire extinguishers in the [REDACTED] lacked documentation showing that regular periodic inspections were being performed at the required intervals. Section A.13.6.4.2.1.2 of NFPA 1 (2021); Section A.13.6.4.3.2 of NFPA 1 (2021).

These practices are inconsistent with RAGAGEP and OSHA requirements for worker safety, and they are documented by photographs taken by the inspection team.

Operating Procedures

Integral to maintaining a safe facility is providing plant personnel with accurate and up to date operating procedures. During the inspection, the inspectors requested information pertaining to operating procedures that provide clear instructions for safely conducting activities associated with each process consistent with the process safety information for that process. In response, PHRT provided all relevant operating procedures that are typically used during normal operations of the Facility. However, as the process is not operating currently, Facility representatives stated that they are not currently using any operating procedures to conduct operations. Alternatively, operators are provided with a daily task checklist, detailed as the “Operations Night Instructions.” The inspectors received examples of the daily “Operations Night Instructions” from the date range of September 1, 2023, through September 21, 2023.

The Operations Refinery Shift Supervisor stated that occasionally the “Operations Night Instructions” may direct an operator to interact with process equipment using a specific Standard Operating Procedure (SOP) associated with the active operating configuration for the facility. At the time of the inspection, PHRT representatives stated they do not have the intention of re-validating SOPs until the refinery is formally undergoing the re-start process. If SOPs are occasionally used and referred to in the daily task direction that Operators receive via “Operations Night Instructions,” then SOPs must be properly reviewed, updated, and validated prior to use.

Audits

There have been no RMP compliance audits conducted since those conducted by LBR in 2019.

Minimizing the Effects of Releases

The general duty, set forth in Section 112(r)(1) of the CAA includes (in addition to identifying hazards that may result from accidental releases and designing and maintaining a safe facility taking such steps as are necessary to prevent releases) minimizing the consequences of accidental releases that do occur.

The 2022 GDC Inspection Report stated that “[t]he OPT Fire Brigade and Hazardous Materials Unit support PHRT in the event of an incident, with support as necessary from local emergency fire services and Virgin Islands Territorial Emergency Management Agency. PHRT has a vacuum truck on site and relies on a contractor (NRC) for primary oil spill response and cleanup.”

During the 2023 GDC Inspection, the inspectors requested information pertaining to emergency response protocols. PHRT now has an internal Emergency Response Team (ERT; fire brigade and hazardous materials response), with response support provided by St. Croix Fire Department and Virgin Islands Territorial Emergency Management Agency (VITEMA). The Facility fire brigade process response operations are primarily for the operation of the Facility’s fire monitoring system, which was installed and is maintained by OPT. PHRT also contracts with a private fire brigade in Texas (Williams Fire and Hazard Control), to provide supplemental resources to fight fires and respond to other incidents at the Facility beyond those of any initial response resources provided by on-island response teams.

OSHA inspected PHRT’s emergency response program in November 2022, and it identified several deficiencies, including an insufficient number of response team members, insufficient emergency response team training, insufficient emergency response procedures for fires and chemical releases, and insufficient coordination of emergency response between PHRT and OPT. PHRT provided USEPA with its corrective action plan submitted to OSHA to address the OSHA inspection findings.

PHRT provided a “PHRT Fire Brigade Policy” document, dated May 2023, that describes fire brigade function, management roles and responsibilities, number of fire brigade members, and training. PHRT also provided an Emergency Response Plan (LBR, February 2020) that includes procedures for response to fires and chemical releases. PHRT provided ERT training logs for fire brigade and Process Unit Hazards Awareness, which include a written test. PHRT also provided a current emergency response equipment list.

Three accident investigations were reviewed during the 2023 GDC Inspection, including investigations of the August 4, 2022 smoldering coke incident and a July 20, 2023 smoldering sulfur dust incident, both of which occurred under PHRT ownership. The third investigation was for the February 4, 2021, Flare No. 8 incident, which occurred under the previous owner. The inspection team did not receive any documentation tracking the findings from the investigations, and no documentation of the resolutions and implementation of corrective actions were available for review.

Risk Management Plan

As mentioned above, PHRT purchased the Facility in January 2022. PHRT did not submit an RMP to EPA for the processes at the Facility that contained regulated substances greater than the established threshold amounts, including for ammonia and LPG, nor did it update the RMP submitted by the prior operator. While ammonia and some of the LPG at the Facility were removed pursuant to the GDC Order, the 2023 Inspection confirmed that, at a minimum, LPG remains at the Facility in processes above the threshold quantity that would require submission of an RMP. The definition of “process,” as set forth in 40 C.F.R. § 68.3, includes “storage.”




EPCRA/CERCLA

During the 2023 Inspection, the inspectors requested information pertaining to compliance with EPCRA/CERCLA. In response, PHRT provided documentation of the Tier II submission to the VI DPNR. As discussed previously, PHRT has provided inconsistent, contradictory, or inaccurate material inventories in various documents ([REDACTED]

[REDACTED]
[REDACTED]
[REDACTED]). Specifically, inventories of materials such as LPG have varied significantly in these documents, including several instances in which the Facility may have over reported, under reported, and/or failed to report materials in process storage entirely. This pattern of providing inaccurate chemical inventories presents the possibility that not all chemical quantities and associated hazards on the Facility have been identified.

CONCLUSION

This 2023 Inspection Report identifies and documents numerous examples, detailed above, of concerns related to PHRT’s noncompliance with its general duty set forth in Section 112(r)(1) of the CAA. This 2023 Inspection Report also identifies concerns regarding risk management program requirements pursuant to Section 112(r)(7) of the CAA as well as concerns about compliance with EPCRA/CERCLA inventory reporting requirements.

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| INSPECTOR SIGNATURE: | DWAYNE HARRINGTON  Digitally signed by DWAYNE HARRINGTON Date: 2023.12.19 15:38:00 -05'00' | Dwayne Harrington, Inspector | Date |
| INSPECTOR SIGNATURE: | KARL LINDBERG  Digitally signed by KARL LINDBERG Date: 2023.12.19 15:41:19 -05'00' | Karl Lindberg, Inspector | Date |
| APPROVER SIGNATURE: | ELLEN BANNER  Digitally signed by ELLEN BANNER Date: 2023.12.19 15:49:56 -05'00' | Ellen Banner, Section Chief | Date |

- Appendix A – Confidential Inspection Photo Log
- Appendix B - 114 letter response from PHRT Inventory – provided on July 28, 2023;
- Appendix C - Confidential Inventory from September 2022 GDC Inspection
- Appendix D - Confidential Advisian Report in response to September 2022 GDC Inspection (Short Report)
- Appendix E – Confidential ERG Report in response to Advisian Report