

U.S. Department of Labor Occupational Safety and Health Administration
B7 Calle Tabonuco, Suite 1105
Guaynabo, PR 00968



11/08/2021

Limetree Bay Refining, LLC.
and its successors
1 Estate Hope
Christiansted, VI 00820

Dear Employer:

Enclosed you will find citations for violations of the Occupational Safety and Health Act of 1970 (the Act) which may have accompanying proposed penalties. Also enclosed is a booklet entitled, "Employer Rights and Responsibilities Following an OSHA Inspection", (OSHA 3000-04R) revised 2018, which explains your rights and responsibilities under the Act. If you have any questions about the enclosed citations and penalties, I would welcome further discussions in person or by telephone. Please contact me at (787) 277-1560.

You will note on page 6 of the booklet that, for violations which you do not contest, you must (1) notify this office promptly by letter that you have taken appropriate corrective action within the time set forth on the citation; and (2) pay any penalties assessed. Please inform me of the abatement steps you have taken and of their dates together with adequate supporting documentation; e.g., drawings or photographs of corrected conditions, purchase/work orders related to abatement actions, air sampling results. This information will allow us to close the case.

As indicated on page 3 of the booklet, you may request an informal conference with me during the 15-working-day notice of contest period. During such an informal conference you may present any evidence or views which you believe would support an adjustment to the citation or the penalty.

If you are considering a request for an informal conference to discuss any issues related to this Citation and Notification of Penalty, you must take care to schedule it early enough to allow time to contest after the informal conference, should you decide to do so. Please keep in mind that a written letter of intent to contest must be submitted to the Area Director within 15 working days of your receipt of the citation. The running of this contest period is not interrupted by an informal conference.

If you decide to request an informal conference, please complete the attached notice at the bottom of this letter and post it next to the Citations as soon as the time, date and the place of the informal conference have been determined. Be sure to bring to the conference with you any and all supporting documentation of existing conditions as well as of any abatement steps taken thus far. If conditions warrant, we can enter into an informal settlement agreement which amicably resolves this matter without litigation or contest.

You should be aware that OSHA publishes information on its inspection and citation activity on the Internet under the provisions of Electronic Freedom of Information Act. The information related to these alleged violations will be posted when our system indicates that you have received this citation. You are encouraged to review the information concerning your establishment at www.osha.gov. If you have any dispute with the accuracy of the information displayed, please contact this office.

Sincerely,

Alfredo Nogueras, CSP
Area Director

Enclosures

U.S. Department of Labor
Occupational Safety and Health Administration
B7 Calle Tabonuco, Suite 1105
Guaynabo, PR 00968



Citation and Notification of Penalty

To:
Limetree Bay Refining, LLC.
and its successors
1 Estate Hope
Christiansted, VI 00820

Inspection Number: 1521774
Inspection Date(s): 03/26/2021 - 11/04/2021
Issuance Date: 11/08/2021

Inspection Site:
1 Estate Hope
Christiansted, VI 00820

The violation(s) described in this Citation and Notification of Penalty is (are) alleged to have occurred on or about the day(s) the inspection was made unless otherwise indicated within the description given below.

This Citation and Notification of Penalty (this Citation) describes violations of the Occupational Safety and Health Act of 1970. The penalty(ies) listed herein is (are) based on these violations. You must abate the violations referred to in this Citation by the dates listed and pay the penalties proposed, unless within 15 working days (excluding weekends and Federal holidays) from your receipt of this Citation and Notification of Penalty **you either call to schedule an informal conference (see paragraph below) or** you mail a notice of contest to the U.S. Department of Labor Area Office at the address shown above. Please refer to the enclosed booklet (OSHA 3000) which outlines your rights and responsibilities and which should be read in conjunction with this form. Issuance of this Citation does not constitute a finding that a violation of the Act has occurred unless there is a failure to contest as provided for in the Act or, if contested, unless this Citation is affirmed by the Review Commission or a court.

Posting - The law requires that a copy of this Citation and Notification of Penalty be posted immediately in a prominent place at or near the location of the violation(s) cited herein, or, if it is not practicable because of the nature of the employer's operations, where it will be readily observable by all affected employees. This Citation must remain posted until the violation(s) cited herein has (have) been abated, or for 3 working days (excluding weekends and Federal holidays), whichever is longer.

Informal Conference - An informal conference is not required. However, if you wish to have such a conference you may request one with the Area Director during the 15 working day contest period by calling (787) 277-1560. During such an informal conference, you may present any evidence or views which you believe would support an adjustment to the citation(s) and/or penalty(ies).

If you are considering a request for an informal conference to discuss any issues related to this Citation and Notification of Penalty, you must take care to schedule it early enough to allow time to contest after the informal conference, should you decide to do so. Please keep in mind that a written letter of intent to contest must be submitted to the Area Director within 15 working days of your receipt of this Citation. The running of this contest period is not interrupted by an informal conference.

If you decide to request an informal conference, please complete, remove and post the Notice to Employees next to this Citation and Notification of Penalty as soon as the time, date, and place of the informal conference have been determined. Be sure to bring to the conference any and all supporting documentation of existing conditions as well as any abatement steps taken thus far. If conditions warrant, we can enter into an informal settlement agreement which amicably resolves this matter without litigation or contest.

Right to Contest – You have the right to contest this Citation and Notification of Penalty. You may contest all citation items or only individual items. You may also contest proposed penalties and/or abatement dates without contesting the underlying violations. **Unless you inform the Area Director in writing that you intend to contest the citation(s) and/or proposed penalty(ies) within 15 working days after receipt, the citation(s) and the proposed penalty(ies) will become a final order of the Occupational Safety and Health Review Commission and may not be reviewed by any court or agency.**

Penalty Payment – Penalties are due within 15 working days of receipt of this notification unless contested. (See the enclosed booklet and the additional information provided related to the Debt Collection Act of 1982.) Make your check or money order payable to “DOL-OSHA”. Please indicate the Inspection Number on the remittance. You can also make your payment electronically at www.pay.gov. At the top of the pay.gov homepage, type "OSHA" in the Search field and select Search. From **OSHA Penalty Payment Form** search result, select Continue. The direct link is:

<https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334>

You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will process the payments as if these restrictions or conditions do not exist.

Notification of Corrective Action – For each violation which you do not contest, you must provide **abatement certification** to the Area Director of the OSHA office issuing the citation and identified above. This abatement certification is to be provided by letter within 10 calendar days after each abatement date. Abatement certification includes the date and method of abatement. If the citation indicates that the violation was corrected during the inspection, no abatement certification is required for that item. The abatement certification letter must be posted at the location where the violation appeared and the corrective action took place or employees must otherwise be effectively informed about abatement activities. A sample abatement certification letter is enclosed with this Citation. In addition, where the citation indicates that **abatement documentation** is necessary, evidence of the purchase or repair of equipment, photographs or video, receipts, training records, etc., verifying that abatement has occurred is required to be provided to the Area Director.

Employer Discrimination Unlawful – The law prohibits discrimination by an employer against an

employee for filing a complaint or for exercising any rights under this Act. An employee who believes that he/she has been discriminated against may file a complaint no later than 30 days after the discrimination occurred with the U.S. Department of Labor Area Office at the address shown above.

Employer Rights and Responsibilities – The enclosed booklet (OSHA 3000) outlines additional employer rights and responsibilities and should be read in conjunction with this notification.

Notice to Employees – The law gives an employee or his/her representative the opportunity to object to any abatement date set for a violation if he/she believes the date to be unreasonable. The contest must be mailed to the U.S. Department of Labor Area Office at the address shown above and postmarked within 15 working days (excluding weekends and Federal holidays) of the receipt by the employer of this Citation and Notification of Penalty.

Inspection Activity Data – You should be aware that OSHA publishes information on its inspection and citation activity on the Internet under the provisions of the Electronic Freedom of Information Act. The information related to these alleged violations will be posted when our system indicates that you have received this citation. You are encouraged to review the information concerning your establishment at www.osha.gov. If you have any dispute with the accuracy of the information displayed, please contact this office.



NOTICE TO EMPLOYEES OF INFORMAL CONFERENCE

An informal conference has been scheduled with OSHA to discuss the citation(s) issued on 11/08/2021. The conference will be held by telephone or at the OSHA office located at B7

Calle Tabonuco, Suite 1105, Guaynabo, PR 00968 on _____ at

_____. Employees and/or representatives of employees have a right to attend an informal conference.

CERTIFICATION OF CORRECTIVE ACTION WORKSHEET

Inspection Number: 1521774

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820
Issuance Date: 11/08/2021

List the specific method of correction for each item on this citation in this package that does not read "Corrected During Inspection" and return to: **U.S. Department of Labor – Occupational Safety and Health Administration, B7 Calle Tabonuco, Suite 1105, Guaynabo, PR 00968.**

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

Citation Number _____ and Item Number _____ was corrected on _____
By (Method of Abatement): _____

I certify that the information contained in this document is accurate and that the affected employees and their representatives have been informed of the abatement.

Signature

Date

Typed or Printed Name

Title

NOTE: 29 USC 666(g) whoever knowingly makes any false statements, representation or certification in any application, record, plan or other documents filed or required to be maintained pursuant to the Act shall, upon conviction, be punished by a fine of not more than \$10,000 or by imprisonment of not more than 6 months or both.

POSTING: A copy of completed Corrective Action Worksheet should be posted for employee review



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 1 Type of Violation: **Serious**

29 CFR 1910.119(d)(2)(i)(D): Safe upper and lower limits for such items as temperature, pressures, flows, or compositions pertaining to the technology of the process were not compiled before conducting any process hazard analysis required by this standard:

(a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete and accurate safe upper and lower limits for such items as temperatures, pressures, flows, or compositions for the DCU. The employer did not compile complete information on low and high pilot gas pressure for the Coker Feed Furnace (H-8501B). Failure to establish accurate safe operating limits for H-8501 pilot gas system to ensure it alarms and trips at the correct pressure can lead to process upsets, and expose employees to fire, explosion and toxic hazards.

(b) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete and accurate safe upper and lower limits for such items as temperatures, pressures, flows, or compositions for the DCU. The employer did not compile accurate information on the process's technology, including upper and lower limits for injecting antifoam into Coke drum during Coke fill to prevent foam over. Failure to establish accurate safe operating limits for antifoam could result in overfill of Coke Drums and expose employees to fire, explosion, and toxic hazards.

(c) On or about May 12, 2021, at Limetree Bay Refining, LLC., Flare No. 8 Complex - the employer failed to compile complete and accurate safe upper and lower limits for such items as temperatures, pressures, flows, or compositions for the Flare No.8. The employer did not compile accurate information on the process's technology, including upper and lower limits for level in Coker Flare Knockout Drum (D-8702) and FCC Flare Knockout Drum (D-7941). Failure to establish accurate safe operating limits for flare knockout drum level could overfill drums, cause liquid carryover to flare, flaming rain and expose employees to fire, explosion, toxic and respiratory hazards.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:
Proposed Penalty:

August 03, 2022
\$13,653.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 2 Type of Violation: **Serious**

29 CFR 1910.119(d)(2)(i)(E): The employer failed to perform an evaluation of the consequences of deviations, including those affecting the safety and health of employees:

(a) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete and accurate information concerning the technology of the DCU to include an evaluation of the consequences of deviations, including those affecting the safety and health of employees. The employer did not include an evaluation of the consequences of exceeding the quench water flowrate during an abnormal, or "tarry drum," quenching scenario. Failure to evaluate consequences of exceeding safe operating limits for quench water flowrate can cause an overflow/overpressure scenario, and expose employees to fire, explosion, and toxic hazards.

(b) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete and accurate information concerning the technology of the DCU to include an evaluation of the consequences of deviations, including those affecting the safety and health of employees. The employer did not include an evaluation of the consequences of exceeding the design metal temperature of the Coker Feed Furnace (H-8501B) tube and swing elbow. Failure to accurately establish safe operating limits for heater tubes/elbows and evaluate consequences of exceeding limits can cause catastrophic tube rupture, and expose employees to fire, explosion, and toxic hazards.

(c) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete and accurate information concerning the technology of the DCU to include an evaluation of the consequences of deviations, including those affecting the safety and health of employees. The employer did not include an evaluation of the consequences of low pilot fuel gas to Coker Feed Furnace (H-8501B) during coke drum filling. Failure to accurately establish safe operating limits for H-8501B's pilot fuel gas and evaluate consequences pilot gas can expose employees to fire, explosion, and toxic hazards.

(d) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete and accurate information concerning the technology of the DCU to include an evaluation of the consequences of deviations, including those affecting the safety and health of employees. The employer did not include an evaluation of the consequences of low Coker Feed Furnace (H-8501B) process outlet temperature (also known as coil outlet temperature). Failure to accurately establish safe operating limits for H-8501B's COT and evaluate consequences of low drum inlet temperature can lead to abnormal coke drum scenario, and expose employees to fire, explosion, and toxic hazards.

(e) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

compile complete and accurate information concerning the technology of the DCU to include an evaluation of the consequences of deviations, including those affecting the safety and health of employees. The employer did not include an evaluation of the consequences of high temperature and high pressure for Coke Drum overhead vapor line to Blowdown Tower (T-8512) during an abnormal, or "tarry drum," quenching scenario. Failure to establish accurate safe operating limits and evaluate consequences of high temperature and high pressure can exceed design temperature and pressure of process equipment resulting in loss of containment, and expose employees to fire, explosion, and toxic hazards.

(f) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete and accurate information concerning the technology of the DCU to include an evaluation of the consequences of deviations, including those affecting the safety and health of employees. The employer did not include an evaluation of the consequences of exceeding the process temperature of the overhead vapor line to the Coker Fractionation Tower (T-8501). Failure to establish accurate safe operating limits and evaluate consequences of high temperature can exceed design temperature of piping resulting in loss of containment, and expose employees to fire, explosion, and toxic hazards.

(g) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete and accurate information concerning the technology of the DCU to include an evaluation of the consequences of deviations, including those affecting the safety and health of employees. The employer did not include an evaluation of the consequences of high pressure in Coke Drum (D-8504) overhead vapor line (PI-4010) during an abnormal, or "tarry drum" quenching scenario. Failure to establish accurate safe operating limits and evaluate consequences of high pressure can exceed design pressure of piping resulting in loss of containment, and expose employees to fire, explosion, and toxic hazards.

(h) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete and accurate information concerning the technology of the DCU to include an evaluation of the consequences of deviations, including those affecting the safety and health of employees. The employer did not include an evaluation of the consequences of high pressure in Blowdown Drum Overhead Separator (D-8513) overhead line (PC-4653) and flare line (PC-4693) during an abnormal, or "tarry drum," quenching scenario. Failure to establish accurate safe operating limits and evaluate consequences of high pressure can exceed design pressure of piping resulting in loss of containment, and expose employees to fire, explosion, and toxic hazards.

(i) On or about May 12, 2021 at Limetree Bay Refining, LLC., Flare No. 8 Complex - the employer failed to compile complete and accurate information concerning the technology of the Flare No. 8 to include an evaluation of the consequences of deviations, including those affecting the safety and health of employees. The employer did not include an evaluation of the consequences of high level in Coker Flare Knockout Drum (D-8702) and FCC Flare Knockout Drum (D-7941). Failure to establish accurate safe operating limits and evaluate consequences of exceeding limits for flare knockout drum level causes liquid carryover to flare header, flaming rain and expose employees to fire, explosion, toxic and respiratory hazards.

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1521774
Inspection Date(s): 03/26/2021 - 11/04/2021
Issuance Date: 11/08/2021



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:
Proposed Penalty:

August 03, 2022
\$13,653.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 3 Type of Violation: **Serious**

29 CFR 1910.119(d)(3)(i)(D): Relief system design and design basis pertaining to the equipment in the process were not compiled before conducting any process safety analysis required by this standard.

- (a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer's relief system design basis and calculations did not include complete and accurate information such as all applicable overpressure scenarios and relief load calculations, Pressure Relief Device (PRD) documentation (PRD make/model, and materials of construction), and installation documentation (Relief piping isometrics), inlet and outlet pressure drop calculations including PRV stability (engineering analysis), and piping stress and reaction force analysis.
- (b) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to update relief system design basis and calculations after the crude composition changed.
- (c) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer's relief system design basis and calculations did not include relief system design basis for the Blowdown Tower (T-8512).
- (d) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer's relief system design basis failed to reevaluate overpressure scenario and sizing calculations for the Blowdown Tower (T-8512), Blowdown Drum Overhead Accumulator (D-8513) and Coke Fractionation Tower (T-8501), when the capacity of Coke Drum relief devices was increased.
- (e) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer's relief system design basis and calculations did not include an evaluation of overpressure scenarios involving automatic control valve failure. In particular, the Coke Drum D-8504's relief system design basis shows that the vapor blocked outlet is the controlling scenario but the scenario analyses stated that there is "no relief" due to automatic control valve failure.
- (f) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer's relief system design basis and calculations failed to include an evaluation of overpressure scenarios associated with water entering hot oil inside Coke Drum during quenching operation.
- (g) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer's relief system design basis and calculations did not include or evaluate two phase flow as a Coke Drum relieving scenario during abnormal quenching.

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

- (h) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer's relief system design basis and calculations did not take into account viscosity of process streams in Coker Unit relief system design basis.
- (i) On or about May 12, 2021, at Limetree Bay Refining, LLC., Flare No. 8 Complex - the employer's relief system design basis and calculations failed to evaluate all applicable overpressure scenarios when sizing Flare No. 8 header and the associated Flare knockout drums (D-7941 and D-8702).
- (j) On or about May 12, 2021, at Limetree Bay Refining, LLC., Flare No. 8 Complex - the employer's relief system design basis failed to compile complete accurate information for the East Flare header.
- (k) On or about May 12, 2021, at Limetree Bay Refining, LLC., Flare No. 8 Complex - the employer's relief system design basis and calculations did not include sizing calculations for the FCC Flare Knockout Drum (D-7941) and Coker Flare Knockout Drum (D-8702).

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	August 03, 2022
Proposed Penalty:	\$13,653.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 4 Type of Violation: **Serious**

29 CFR 1910.119(d)(3)(i)(G): The employer's material and energy balances (M&EB) were not accurate and did not reflect the current crude composition and operating conditions:

(a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to update their material and energy balances (M&EB) for the DCU and Flare No.8 after the crude composition changed. Failure to compile complete accurate M&EB results in incorrect process conditions being used for process hazard analyses (PHAs), relief system design basis and calculations, and safe operating limits for equipment, exposing employees to the hazard of explosions, fires from LPG, naphtha, gas oils, coke and toxic gases (H2S, benzene, and carbon monoxide) while working in the DCU.

(b) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to compile complete M&EB information that included normal operating pressure, viscosity of stream, specific heat ratio Cp/Cv, and compressibility factor for the gaseous phase process streams in the DCU. Failure to compile complete accurate M&EB results in using incorrect process conditions in the PHAs, relief system design basis and calculations, and safe operating limits for equipment in operating procedures, exposed employees to the hazard of explosions, fires from LPG, naphtha, gas oils, coke and toxic gases (H2S, benzene and carbon monoxide) while working in the DCU.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	August 03, 2022
Proposed Penalty:	\$13,653.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 5 Type of Violation: **Serious**

29 CFR 1910.119(d)(3)(ii): The employer did not document that equipment complies with recognized and generally accepted good engineering practices.

(a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to document that equipment complies with recognized and generally accepted good engineering practices such as but not limited to ASME BPVC Section VIII Division 1 (2013) OVERPRESSURE PROTECTION UG 125 (c)(1) when the accumulated pressure for Coke Drum (D-8504) exceeded the Maximum Allowable Working Pressure (MAWP) of 16% for a multiple relief non-fire scenario. This hazardous situation could result in vessel failure and expose employees to vessel rupture, flammable, toxic and respiratory hazards.

(b) On or about May 12, 2021, at Limetree Bay Refining, LLC., Flare No. 8 Complex - The employer failed to document that equipment complies with recognized and generally accepted good engineering practices such as, but not limited to, API 521 Pressure-relieving and Depressuring Systems (2014), Section 5.7.9.5 when the FCC Complex Flare Knockout Drum (D-7941) and Coker Flare Knockout Drum (D-8702) did not have sufficient capacity to handle liquids during an emergency release from the Coker Unit. Failure to provide sufficient capacity for knockout drum caused drums to overflow with an oily mist, resulting in liquid carryover to flare, flare rainout, fire, and employee exposure and surrounding community to flammable, toxic and respiratory hazards.

(c) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to document that equipment complies with the employer's chosen recognized and generally accepted good engineering practices Hovensa Engineering Standard 1310.1 Fireproofing - General Requirement, Section 3.19, and API 2218, Fireproofing Practices in Petroleum and Petrochemical Processing Plants (1st edition, 1998) Sections 3.1.8 and 3.1.9, when the emergency isolation valves (MOV-4513) used to isolate Coke Blowdown Tower (T-8512) was not equipped with fireproofing (i.e. insulation on tubing and conduit) to withstand fire. This hazardous situation could result in failure of emergency isolation valve and expose employees to fire and toxic hazards during emergency.

(d) On or about May 12, 2021, at Limetree Bay Refining, LLC., Flare No. 8 Complex - the employer failed to document that equipment complies with recognized and generally accepted good engineering practices such as but not limited to API 521 (2014) Sections 5.7.2.3.1 and 5.8.4.4, Table 12-Recommended Design Thermal Radiation for Personnel Permissible Design Level K kW/m² (Btu/h·ft²) Conditions when the radiation levels exceeded the maximum radiation rate of 1,500 Btu/ ft²*hr at the Flare Knockout Drums - FCC Flare KO Drum (D-7941) and Coker Flare Knockout Drum (D-8702). Failure to protect employees and equipment from thermal radiation levels during flaring event can result in severe burn injuries, exposure to toxic and respiratory hazards, and cause

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1521774
Inspection Date(s): 03/26/2021 - 11/04/2021
Issuance Date: 11/08/2021



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

equipment to catastrophically fail.

(e) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to document that equipment complies with recognized and generally accepted good engineering practices such as but not limited to API 521 (2014) Sections 4.4.7 and 5.5.11 when the employer's relief system did not consider two-phase overpressure scenarios creating unbalanced forces on relief system piping and supports. Failure to design relief system piping and associated supports for two phase flow can result in failure of piping, pipe supports, and employee exposure to flammable, toxic and respiratory hazards.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:
Proposed Penalty:

August 03, 2022
\$13,653.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 6 Type of Violation: **Serious**

29 CFR 1910.119(e)(1): The process hazard analysis did not identify the hazards involved in the process:

(a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's 2020 UNIT 8500 Coker Unit Re-do Process Hazard Analysis Final Report failed to identify, evaluate, and control the hazards of quenching coke drums. The PHA did not identify, evaluate and control the hazard of high levels in Coke Drums (D-8501/2/3/4) during quenching. Failure to control hazards of excessive quench water resulted in overfill/overpressure of Coker Unit equipment, and liquid carryover to flare, exposing employees to fire, explosion, and toxic release hazards.

(b) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's 2020 UNIT 8500 Coker Unit Re-do Process Hazard Analysis Final Report failed to evaluate and control the hazards of quenching coke drums. The PHA identified the hazard of adding too much quench water to the Coke Drums but did not evaluate and specify controls for the hazards of leaving the 3-inch bypass valve around the quench water valve (FV-4067) open. Failure to control hazards of excessive quench water resulted in overfill/overpressure of Coker Unit and liquid carryover to flare, exposing employees to fire, explosion, and toxic release hazards.

(c) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's 2020 UNIT 8500 Coker Unit Re-do Process Hazard Analysis Final Report failed to evaluate and control the hazards of the DCU process. The PHA identifies low temperature and loss of feed to Coke Drums (D-8501A/B/C/D) upon Coker Feed Furnace (H-8501A/B) trip but did not evaluate and specify controls for the hazards of an abnormal Coke Drum. Failure to evaluate and control hazards of abnormal coke drum caused overfill/overpressure of Coker Drum, liquid carryover to flare, and exposed employees, contractors, and off-site communities to fire explosion, and toxic release hazards.

(d) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's 2020 UNIT 8500 Coker Unit Re-do Process Hazard Analysis Final Report failed to identify, evaluate, and control the hazards of processing lighter crude. Failure to evaluate changes to crude on DCU unit affected safe operation of the unit, and exposed employees and contractors to fire explosion, and toxic release hazards.

(e) On or about May 12, 2021, at Limetree Bay Refining, LLC., Flare No. 8 - the employer's 2020 UNIT 7940 - No. 8 Flare FINAL Re-do Process Hazard Analysis Report failed to evaluate and control the hazards involved in the Flare No. 8 process. The PHA failed to evaluate high flow overpressure scenarios from the upstream Coker Unit, and specify controls for hazards of overfilling of FCC LP Flare Knockout Drum (D-7941), and Coker Flare Knockout Drum (D-8702). Failure to control hazards of liquid carryover to flare during abnormal coke operations

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

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Issuance Date: 11/08/2021



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

exposed employees to flare rainout, fire, and toxic release hazards.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:
Proposed Penalty:

August 03, 2022
\$13,653.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 7 Type of Violation: **Serious**

29 CFR 1910.119(e)(3)(iii): The process hazard analysis did not address engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases.

(a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's PHA failed to evaluate the absence of administrative controls applicable to the hazards of the Coker Unit quenching process when too much quench water entered the Coke Drum (D-8504) due to a bypass valve and blind being inadvertently left open. PHA did not address the bypass valve or blind at all. The valve was not on the car seal list, the blind was not on blind list survey and instructions were not included in the operating procedure to verify that valve and blind were closed.

(b) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's PHA failed to evaluate the absence of administrative controls applicable to the hazards of insufficient Coke Drum temperature leading to a tarry drum. In particular, the employer did not have procedures for handling and responding to tarry drums or high level in Coke Drum.

(c) On or about May 12, 2021, at Limetree Bay Refining, LLC., Flare No. 8 Complex - The employer's PHA failed to evaluate the absence of engineering and administrative controls applicable to the hazards of thermal radiation flux levels from flaring exposing personnel to burn and toxic vapors. In particular, the employer did not provide protection measures such as shielding or installing a boundary/barricade to restrict personnel and signage warning of the potential of thermal radiation exposure for areas near Flare No. 8.

(d) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's PHA failed to evaluate the absence of engineering and administrative applicable to the hazard of toxic gases (H₂S and benzene) entering the Coker Unit Operator Shelter (Building # 8503) during an emergency release from process equipment in the Coker Unit. In particular, the employer failed to ensure that Building #8503 had sufficient mitigation systems for a shelter in place location in the event of a toxic release - it was not equipped with appropriate engineering controls to detect, mitigate and reduce hazards to workers in the event of a toxic release.

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Proposed Penalty:

\$13,653.00



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 8 Type of Violation: **Serious**

29 CFR 1910.119(e)(3)(v): The PHA did not address facility siting :

(a) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to evaluate and control facility siting hazards in the 2020 Coker Unit Initial PHA when it did not evaluate and control the hazards of toxic gases (H₂S and benzene) entering the Coker Control Building # 8503 (i.e. currently the Coker Unit Operator Shelter) during an emergency release from process equipment in the Coker Unit. Failure to control ingress of toxic vapors can expose workers to toxic, flammable and respiratory hazards during an emergency release and prevent timely evacuation.

(b) On or about May 12, 2021 at Limetree Bay Refining, LLC., Flare No. 8 Complex - The employer failed to evaluate and control facility siting hazards in the 2021 Flare Initial PHA when it did not evaluate and control the hazards to personnel, occupied buildings and process equipment exposed to thermal radiation flux levels greater than 2,000 BTU/ft²*hr from Flare No. 8. Failure to evaluate effects of thermal radiation on occupied buildings and process equipment can expose process equipment and employees to high thermal radiation levels resulting in loss of containment and burn injuries.

(c) On or about May 12, 2021 at Limetree Bay Refining, LLC., Flare No. 8 Complex - The employer failed to identify, evaluate and control facility siting hazards in the 2021 Flare Initial PHA, when it did not evaluate and control the hazard of toxic vapor dispersion during flaring of Flare No. 8. Failure to control toxic vapor from worst case atmospheric flaring scenario can expose employees to toxic, respiratory hazards when responding to emergencies.

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Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 9 Type of Violation: **Serious**

29 CFR 1910.119(e)(3)(vi):The process hazard analysis did not address human factors.

a) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's 2020 UNIT 8500 Coker Unit Re-do Process Hazard Analysis Final Report failed to evaluate human factors when the human-machine interface (HMI) part of the distributed control system (DCS) was inadequately designed such that safety-critical alarms were indistinguishable and not prioritized. Failure to evaluate human factors in the design of the HMI DCS system can confuse operators during an emergency event when several thousand alarms may be reported at the console simultaneously without any prioritization scheme, delaying operator intervention/prompt action to an emergency, exposing employees to fire and toxic exposure hazards.

b) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's 2020 UNIT 8500 Coker Unit Re-do Process Hazard Analysis Final Report failed to evaluate human factors when process equipment - pressure vessels, pipes, valves, instruments, and controls were not labeled. During the P&ID walk down of the Coker Unit, OSHA observed pressure vessels (Coker Drums, Blowdown Tower, Fractionation Tower, etc.), piping, pumps, control valves (MOV), emergency isolation valves, manual valves including car seal/locked open valves, and instruments were not labeled. Failure to properly label process equipment can lead to inadvertent operation of equipment such as opening the incorrect valve or errors with Coke Drum switching, exposing employees to fire, explosion, and toxic release hazards.

c) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's 2020 UNIT 8500 Coker Unit Re-do Process Hazard Analysis Final Report did evaluate human factors in the initial Coker PHA related to hiring and retaining experienced personnel due to the remote location of the facility. Failure to have appropriate staffing and experienced operators can create worker fatigue and unsafe operations, exposing employees to fire, explosion, and toxic release hazards.

d) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's 2020 UNIT 8500 Coker Unit Re-do Process Hazard Analysis Final Report did not evaluate human factors when the operating procedures, Coke Drum Preparation, Switching, Drum Quenching, Drum Draining, and Drum Unheading (DCU-OP-401) were too long, unclear, not concise, and inaccurate. Failure to develop clearly written operating procedures can increase the likelihood of an error when using the procedure, exposing operators to fire and toxic hazards.

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Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 10 Type of Violation: **Serious**

29 CFR 1910.119(f)(1): The employer did not develop and implement written operating procedures that provide clear instructions for safely conducting activities involved in each covered process consistent with the process safety information:

Instance a) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to develop and implement written operating procedures to manage and address abnormal coke drum conditions including, but not limited to, low-temperature drums with incompletely coked contents, i.e. "Tarry Drum," a short run coke drum, and/or a partial or fully unquenched coke drum.

Instance b) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to implement the written operating procedure DCU OP-401 "Delayed Coker Unit - Coke Drum Preparation, Switching, Drum Quenching, Drum Draining, and Drum Unheading" when the requirement for the Structure and Console Operators to sign-off each step of the in-hand procedure as it was performed was not practiced or enforced.

Instance c) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to implement the written operating procedure GENERIC OPERATING PROCEDURE 0000-588 "Shift Handover" when supervisory staff were not available to conduct shift handover discussions and did not ensure that Operators completed the shift log.

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Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 11 Type of Violation: **Serious**

29 CFR 1910.119(f)(1)(ii): The employer's written operating procedures did not address the requirements for the operating limits:

(a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to address operating limits in the written operating procedure DCU OP-401 "Delayed Coker Unit - Coke Drum Preparation, Switching, Drum Quenching, Drum Draining, and Drum Unheading" when the safe upper and lower temperature limits for the Coker Feed Furnace (H-8501A/B) Process Outlet temperatures (Coil Outlet Temperature or COT) were not identified.

(b) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to address operating limits in the written operating procedure DCU OP-401 "Delayed Coker Unit - Coke Drum Preparation, Switching, Drum Quenching, Drum Draining, and Drum Unheading" when the safe upper temperature limits for the Coker Feed Furnace (H-8501A/B) tube skin temperature indicators were not identified.

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See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 12 Type of Violation: **Serious**

29 CFR 1910.119(f)(4): The employer did not develop and implement safe work practices to provide for the control of hazards during operations such as lockout/tagout; confined space entry; opening process equipment or piping:

a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to implement the safe work practice 35-0044 "Walk the Line (WTL) Guidance" to isolate and return equipment to service when Operations along with designated personnel (Maintenance, Engineering, SME, etc.) did not walk down the Coke Drum quench water system following a piping repair where the quench water 3" bypass valve was opened to drain the water lines. On May 12, 2021, an excessive amount of quench water, due to unsecured and open quench water 3" bypass valve and spectacle blind, entered Coke Drum D-8504, resulting in an overpressure event, release to flare, and a fire at the flare stack.

b) On or about May 12, 2021 at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to develop and implement safe work practices to ensure the position of car seals was verified to prevent inadvertent valve opening or closure (i.e. deviating from normal operating conditions). Car seal inspections were not performed when equipment was returned to service following maintenance activities where a car sealed valve's normal state/condition was changed.

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\$13,653.00

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Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 13 Type of Violation: **Serious**

29 CFR 1910.119(i)(2)(i): The pre-startup safety review did not confirm that construction and equipment is in accordance with design specifications prior to the introduction of highly hazardous chemicals to a process:

- a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's pre-startup safety review (PSSR) failed to confirm that prior to the introduction of highly hazardous chemicals (HHC) into the DCU process that the construction and equipment is in accordance with design specifications when field verification, inspection, and testing was not conducted and documented in Limetree's Vessels and Exchangers Checklist. In particular, the employer failed to complete the following items prior to startup: restore missing cladding on internal surfaces of Coke drums, correct corrosion under insulation (CUI) on Coke drums, correcting pitting on Blowdown Drum Overhead Separator (D-8513), and Flare Knockout Drum (D-7941), and restore pressure vessel fireproofing. Failure to confirm pressure vessels meet design specifications and inadequate inspection and testing can result in loss of containment and expose employees to fire, toxic, and explosion hazards.
- b) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's PSSR failed to confirm that prior to the introduction of HHC into the DCU process that the construction and equipment is in accordance with design specifications when field verification, inspection, and testing was not conducted and documented in Limetree's Piping and Pipe Support Checklist. In particular, the employer failed to complete the following items prior to startup: correct corrosion on flanges and bolts, inspect insulated piping for CUI, label all process piping, restore fireproofing on pipe supports, and verify all piping is adequately supported. Failure to confirm piping and pipe supports meet design specifications and inadequate inspection, and testing can result in loss of containment from piping and expose employees to fire, toxic, and explosion hazards.
- c) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU), the employer's PSSR failed to confirm that prior to the introduction of HHC into the DCU process that the construction and equipment is in accordance with design specifications when the following items in Limetree's Safety Valves Checklist were not completed and documented. In particular, the employer failed to complete the following items prior to startup: verify inlet outlet of pressure relief devices/vacuum relief devices are inspected for fouling in plugging, evaluate the potential for external pressure (vacuum) during pump-out from TK-8501, verify relief device sizing calculations are adequate, and verify isolation valves that may inhibit operation of relief valves are controlled in accordance with car seal program and included on a list. Failure to confirm safety valves meet design specifications and inadequate inspection, and testing can result in loss of containment and expose employees to fire, toxic, and explosion hazards.
- d) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's PSSR failed to confirm that prior to the introduction of HHC into the DCU process that the construction and equipment is

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Company Name: Limetree Bay Refining, LLC.
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in accordance with design specifications when field verification, inspection, and testing was not conducted and documented in Limetree's Heaters Checklist. In particular, the employer failed to complete the following items prior to startup: verify heater tubes were adequately inspected including taking wall thickness measurements of tubes in convection section, establish criteria for heater inspections including locating condition monitoring locations for heater tubes, bends and fittings, and restoring fireproofing as required. Failure to confirm heaters meet design specifications and inadequate inspection, and testing can result in loss of containment and expose employees to fire, toxic, and explosion hazards.

e) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's PSSR failed to confirm that prior to the introduction of HHC into the DCU process that the construction and equipment is in accordance with design specifications when Limetree's Instrumentation Checklist failed to complete the following prior to startup. In particular, the employer failed to complete the following items prior to startup: verify instruments were inspected and tested and results documented, verify instrument air lines and process tubing are cleaned and flushed, verify that all safety systems (i.e. emergency shutdown, interlocks, fire, flammable and toxic gas detectors are tested and documented, and verify distributed control system (DCS) alarms are appropriate (i.e. no redundant alarms, nuisance or confusing alarms are present. Failure to confirm instrumentation meets design specifications and inadequate inspection, and testing can result in upset process conditions and loss of containment, exposing employees to fire, toxic, and explosion hazards.

f) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's PSSR failed to confirm that prior to the introduction of HHC into the DCU process that the construction and equipment are in accordance with design specifications when field verification, and inspection, was not conducted and documented for occupied buildings. In particular, the PSSR did not include any requirements for buildings. In particular, the Coker Unit Operator Shelter Building (#8503) was not adequately designed as a shelter in place to protect occupants in the event of a fire, explosion or toxic release in accordance with API 752 - Management of Hazards Associated with Location of Process Plant Permanent Buildings and LIMETREE BAY TERMINALS L.L.C. LIMETREE BAY REFINING L.L.C. Integrated Contingency Plan St. Croix, United States Virgin Islands September 2020. Failure to confirm buildings meet design specifications and not equipping occupied buildings with the means to detect, alarm, and control toxic vapor ingress during an emergency can expose employees to fire, toxic, and explosion hazards.

g) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's PSSR failed to confirm that prior to the introduction of HHC into the DCU process that the construction and equipment is in accordance with design specifications when field verification, inspection, and testing was not conducted and documented in Limetree's. In particular, the PSSR did not include any requirements for storage tanks in the Coker Unit, including the Vacuum Residuum Tank (TK-8501). Failure to confirm storage tanks meet design specifications and inadequate inspection and testing resulted in the vacuum collapse of the tank and exposed employees to fire, toxic, and explosion hazards.

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U.S. Department of Labor
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Inspection Number: 1521774
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Issuance Date: 11/08/2021



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Company Name: Limetree Bay Refining, LLC.
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Proposed Penalty:

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Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 14 Type of Violation: **Serious**

29 CFR 1910.119(i)(2)(ii): The pre-startup safety review did not confirm that prior to the introduction of highly hazardous chemicals to a process the safety, operating, maintenance, and emergency procedures were in place and were adequate:

a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer's pre-startup safety review failed to confirm that prior to the introduction of highly hazardous chemicals to a process that the operating procedures for the Coker Unit, DCU OP-401 "Delayed Coker Unit - Coke Drum Preparation, Switching, Drum Quenching, Drum Draining, and Drum Unheading were in place and adequate prior to startup. In particular, the employer failed to develop and implement written operating procedures to manage and address abnormal coke drum conditions including, but not limited to, low temperature drums with incompletely coked contents, i.e. "Tarry Drum," a short run coke drum, and/or a partial or fully unquenched coke drum. Failure to implement adequate operating procedures before startup can result in operator errors, catastrophic incidents and expose employees to fire, toxic and explosion hazards.

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Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 15 Type of Violation: **Serious**

29 CFR 1910.119(j)(2): The employer did not establish and implement written procedures to maintain the on-going integrity of process equipment:

a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to establish and implement written procedures to maintain the on-going integrity of process equipment. Specifically, the employer's written procedures for the inspection of pressure vessels, 69-60100 "PRESSURE VESSEL INSPECTION" did not include written procedures for inspecting insulated pressure vessels for Corrosion Under Insulation (CUI). Failure to address CUI on insulated equipment could result in unidentified, unmitigated corrosion leading to vessel failure and loss of containment, exposing employees to fire, toxic, and explosion hazards.

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Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 16 Type of Violation: **Serious**

29 CFR 1910.119(j)(4)(i): Inspections and tests shall be performed on process equipment.

(a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to perform detailed internal inspection and testing on all heater piping such as but not limited to tubing, 180 degree bends/elbows, and fittings located in the convection section of the Coker Feed Furnace (H-8501A/B) prior to startup. Failure to inspect and test heater piping resulted in a catastrophic tube and elbow rupture and employee exposure to fire, toxic and explosion hazards.

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Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
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Citation 1 Item 17 Type of Violation: **Serious**

29 CFR 1910.119(j)(5): 1910.119(j)(5) the employer shall correct deficiencies in equipment that are outside acceptable limits before further use or in a safe and timely manner when necessary means are taken to assure safe operation.

a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer failed to correct deficiencies in Coke Drums (D-8501/2/3/4) that are outside acceptable limits (defined by the process safety information in paragraph (d) of this section) by not replacing the 410 stainless steel clad liner per original Coke drum design drawing before further use or in a safe and timely manner when necessary means were not taken to assure safe operation. The employer failed to restore stainless steel clad liner on the internal surfaces of Coke drums without corrosion protection which could have resulted in catastrophic failure of drums and exposure to fire, toxic and hazards.

b) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to correct deficiencies in Coke Drums (D-8501/2/3/4) that are outside acceptable limits (defined by the process safety information in paragraph (d) of this section) by not correcting the bulging of the Coke drums found during laser scanning of drums before further use or in a safe and timely manner when necessary means were not taken to assure safe operation. The employer did not correct bulging on Coke drums; failure to do so can result in catastrophic failure of drums and exposure to fire, toxic and hazards.

c) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to correct deficiencies in Blowdown Overhead Separator (D-8513) that are outside acceptable limits (defined by the process safety information in paragraph (d) of this section) by not correcting significant pitting found on bottom of the vessel before further use or in a safe and timely manner when necessary means were not taken to assure safe operation. The employer did not perform weld buildup of D-8513; failure to do so can result in catastrophic failure of vessel and exposure to fire, toxic and hazards.

d) On or about May 12, 2021, at Limetree Bay Refining, LLC. Flare No. 8 Complex - The employer failed to correct deficiencies in process equipment that are outside acceptable limits (defined by the process safety information in paragraph (d) of this section) by not repairing the significant pitting on Flare Knockout Drum (D-7941) before further use or in a safe and timely manner when necessary means were not taken to assure safe operation. The employer failed to repair significant pitting on D-7941 which can result in catastrophic failure of vessel and exposure to fire, toxic and hazards.

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

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Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 18 Type of Violation: **Serious**

29 CFR 1910.119(l)(1):The employer did not establish and implement written procedures to manage changes to process chemicals, technology, equipment, and procedures; and, changes to facilities that affect a covered process:

(a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit - The employer failed to implement their management of change procedure 35-0002 "Management of Change (MOC) Evaluation Process" when a crawler crane was used to transfer dried petroleum coke in the Coke Pit as a replacement for a fixed overhead gantry crane that was out of service. No permanent or temporary MOC was conducted to manage this facility change requiring personnel to enter the coke pit when using the crawler crane, exposing employees to toxic, respiratory, and thermal contact hazards. This facility change also resulted in operational delays leading to process upsets that caused a loss of containment.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:
Proposed Penalty:

August 03, 2022
\$13,653.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1521774
Inspection Date(s): 03/26/2021 - 11/04/2021
Issuance Date: 11/08/2021



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 1 Item 19 Type of Violation: **Serious**

29 CFR 1910.119(l)(3): Employees involved in operating a process and maintenance and contract employees whose job tasks would be affected by a change in the process were not informed of and trained in the change prior to start-up of the process or affected part of the process.

a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - The employer failed to update and train employees on changes made to SOP OP-401 DCU - Coke Drum Preparation, Switching, Drum Quenching, Drum Draining and Drum Unheading, Revision #4.

Date By Which Violation Must be Abated:
Proposed Penalty:

Corrected During Inspection
\$13,653.00

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration

Inspection Number: 1521774
Inspection Date(s): 03/26/2021 - 11/04/2021
Issuance Date: 11/08/2021



Citation and Notification of Penalty

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820

Citation 2 Item 1 Type of Violation: **Other-than-Serious**

29 CFR 1910.119(m)(4)(ii): A report prepared at the conclusion of an incident investigation did not include the date the investigation began:

a) On or about May 12, 2021, at Limetree Bay Refining, LLC., Delayed Coker Unit (DCU) - the employer's incident investigation report, Coke Drum 4 Depressure to Flare, Limetree Bay Refining, St. Croix, USVI - Incident Report LBR1521774-4.5 (Final Rev 6/11/2021) failed to indicate the date the investigation was initiated.

ABATEMENT DOCUMENTATION REQUIRED FOR THIS ITEM

Date By Which Violation Must be Abated:	December 28, 2021
Proposed Penalty:	\$0.00

Alfredo Nogueras, CSP
Area Director

See pages 1 through 4 of this Citation and Notification of Penalty for information on employer and employee rights and responsibilities.

U.S. Department of Labor
Occupational Safety and Health Administration
B7 Calle Tabonuco, Suite 1105Guaynabo, PR 00968



**INVOICE /
DEBT COLLECTION NOTICE**

Company Name: Limetree Bay Refining, LLC.
Inspection Site: 1 Estate Hope, Christiansted, VI 00820
Issuance Date: 11/08/2021

Summary of Penalties for Inspection Number: 1521774

Citation 1 Item 1, Serious	\$13,653.00
Citation 1 Item 2, Serious	\$13,653.00
Citation 1 Item 3, Serious	\$13,653.00
Citation 1 Item 4, Serious	\$13,653.00
Citation 1 Item 5, Serious	\$13,653.00
Citation 1 Item 6, Serious	\$13,653.00
Citation 1 Item 7, Serious	\$13,653.00
Citation 1 Item 8, Serious	\$13,653.00
Citation 1 Item 9, Serious	\$13,653.00
Citation 1 Item 10, Serious	\$13,653.00
Citation 1 Item 11, Serious	\$13,653.00
Citation 1 Item 12, Serious	\$13,653.00
Citation 1 Item 13, Serious	\$13,653.00

Citation 1 Item 14, Serious	\$13,653.00
Citation 1 Item 15, Serious	\$13,653.00
Citation 1 Item 16, Serious	\$13,653.00
Citation 1 Item 17, Serious	\$13,653.00
Citation 1 Item 18, Serious	\$13,653.00
Citation 1 Item 19, Serious	\$13,653.00
Citation 2 Item 1, Other-than-Serious	\$0.00

TOTAL PROPOSED PENALTIES: \$259,407.00

To avoid additional charges, please remit payment promptly to this Area Office for the total amount of the uncontested penalties summarized above. Make your check or money order payable to: "DOL-OSHA". Please indicate OSHA's Inspection Number (indicated above) on the remittance. You can also make your payment electronically at www.pay.gov. At the top of the pay.gov homepage, type "OSHA" in the Search field and select Search. From the **OSHA Penalty Payment Form** search result, select Continue. The direct link is: <https://www.pay.gov/paygov/forms/formInstance.html?agencyFormId=53090334>. You will be required to enter your inspection number when making the payment. Payments can be made by credit card or Automated Clearing House (ACH) using your banking information. Payments of \$25,000 or more require a Transaction ID, and also must be paid using ACH. If you require a Transaction ID, please contact the OSHA Debt Collection Team at (202) 693-2170.

OSHA does not agree to any restrictions or conditions or endorsements put on any check, money order, or electronic payment for less than the full amount due, and will cash the check or money order as if these restrictions or conditions do not exist.

If a personal check is issued, it will be converted into an electronic fund transfer (EFT). This means that our bank will copy your check and use the account information on it to electronically debit your account for the amount of the check. The debit from your account will then usually occur within 24 hours and will be shown on your regular account statement. You will not receive your original check back. The bank will destroy your original check, but will keep a copy of it. If the EFT cannot be completed because of insufficient funds or closed account, the bank will attempt to make the transfer up to two times.

Pursuant to the Debt Collection Act of 1982 (Public Law 97-365) and regulations of the U.S. Department of Labor (29 CFR Part 20), the Occupational Safety and Health Administration is required to assess interest, delinquent charges, and administrative costs for the collection of delinquent penalty debts for violations of the Occupational Safety and Health Act.

Interest: Interest charges will be assessed at an annual rate determined by the Secretary of the Treasury on all penalty debt amounts not paid within one month (30 calendar days) of the date on which the debt amount becomes due and payable (penalty due date). The current interest rate is one percent (1%). Interest will accrue from the date on which the penalty amounts (as proposed or adjusted) become a final order of the Occupational Safety and Health Review Commission (that is, 15 working days from your receipt of the Citation and Notification of Penalty), unless you file a notice of contest. Interest charges will be waived if the full amount owed is paid within 30 calendar days of the final order.

Delinquent Charges: A debt is considered delinquent if it has not been paid within one month (30 calendar days) of the penalty due date or if a satisfactory payment arrangement has not been made. If the debt remains delinquent for more than 90 calendar days, a delinquent charge of six percent (6%) per annum will be assessed accruing from the date that the debt became delinquent.

Administrative Costs: Agencies of the Department of Labor are required to assess additional charges for the recovery of delinquent debts. These additional charges are administrative costs incurred by the Agency in its attempt to collect an unpaid debt. Administrative costs will be assessed for demand letters sent in an attempt to collect the unpaid debt.

Alfredo Nogueras, CSP
Area Director

Date