LIMETREE BAY
REFINING, LLC

May 19, 2021

Mr. Austin F. Callwood, Director
Division of Environmental Protection
Department of Planning & Natural Resources
45 Mars Hill
Frederiksted, V.I. 00840-4474

SUBJECT: **No. 8 Flare H_2S Exceedance – May 12-13, 2021**

Dear Mr. Callwood:

This letter is submitted in compliance with Condition No. 2.4.5.1 of Limetree Bay Title V permit as a follow-up to the email notifications to Ms. Verline Marcellin of the Division of Environmental Protection on May 12, 2021 at 3:41AM and 6:55 PM regarding the H_2S exceedances at the No. 8 Flare header.

The Continuous Monitoring System (CMS) at the No. 8 Flare recorded H_2S concentrations in excess of 162 ppmv based on a 3-hr rolling average (ref. Title V permit condition 3.2.5.5 & 3.2.5.6) from 2:00 AM to 7:59AM on May 12, 2021 and from 3:00 PM on May 12, 2021 to 12:59 AM on May 13, 2021.

The following table provides 3-hr H_2S concentrations at the No. 8 Flare header during the exceedance events.

Source		FLARE08
Parameter		H2SPPMD
Unit		(PPM)
05/12/21	00:00	99.6
05/12/21	01:00	68.6
05/12/21	02:00	214.6
05/12/21	03:00	263.7
05/12/21	04:00	457.7
05/12/21	05:00	536.0
05/12/21	06:00	486.9
05/12/21	07:00	285.4
05/12/21	08:00	57.7
05/12/21	09:00	60.9
05/12/21	10:00	66.3
05/12/21	11:00	63.7
05/12/21	12:00	62.3

Source		FLARE08
Parameter		H2SPPMD
Unit		(PPM)
05/12/21	13:00	61.7
05/12/21	14:00	63.9
05/12/21	15:00	1,277.3
05/12/21	16:00	1,716.0
05/12/21	17:00	2,173.3
05/12/21	18:00	1,427.0
05/12/21	19:00	1,676.7
05/12/21	20:00	1,722.9
05/12/21	21:00	1,540.8
05/12/21	22:00	952.3
05/12/21	23:00	464.6
05/13/21	00:00	178.3
05/13/21	01:00	81.3

Based on our preliminary investigation, on May 11th, starting at approximately 10:00 PM, oil was being charged to Coke Drum #4 (D-8504). During the 2:00 PM to 3:00 PM hour, Operations switched from D-8504 to Coke Drum #3 (D-8503) and steamed D-8504 to the Fractionator (T-8501). Approximately 30 minutes after starting feed to D-8503, the charge heater tripped. As a result, Operations removed steam from D-8504 to direct it to D-8503. Excessive quench water was introduced to D-8504 during the 3:00 PM to 4:00 PM hour. Shortly after this quench water was added to D-8504, the drum pressure exceeded the pressure safety valve (PSV) settings allowing gas and liquid to flow to the Coker blowdown system. Consequently, the PSVs on Blowdown Overhead Separator (D-8513) vented to the No. 8 Flare allowing gas and liquid to flow to the flare.

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Prior to this event, from 2:00 AM to 7:59 AM on May 12th, it appeared that the Coker Sump (D-8541) vented to the No. 8 Flare causing the H_2S exceedances.

We are still actively investigating these events and corrective actions will be developed based on the investigation findings. If you have any questions or need additional information, please contact Maria Aloyo at (340) 692-3781.

Sincerely,

Neil Morgan
VP, Refinery and General Manager
Limetree Bay Refining, LLC

Electronic Copy: Verline Marcellin (DPNR)