



Region 6 - Enforcement & Compliance Assurance Division
INSPECTION REPORT

Inspection Date(s):	12/04/2024 – 12/05/2024	
Media Program:	Air	
Regulatory Program(s)	SIP, Title V, NESHAP, NSPS	
Company Name:	Venture Global Calcasieu Pass, LLC	
Facility Name:	Calcasieu Pass LNG Project	
Facility Physical Location:	671 Davis Road	
(city, state, zip code)	Cameron, LA 70631	
Mailing address:	516 Davis Road	
(city, state, zip code)	Cameron, LA 70631	
County/Parish:	Cameron Parish	
Facility Phone Number	337-587-8062	
Facility Contact:	Rahul Pendse	VP, Air Compliance
	rpendse@ventureglobalng.com	
FRS Number:	110070526554	
Identification/Permit Number:	AI # 194203 / Permit: 0560-00987-V4 & PSD-LA-805 (M-4)	
Media Identifier Number:	ICIS-Air LA0000002202300987	
NAICS:	221210 – Natural Gas Distribution 486210 – Pipeline Transportation	
SIC:	4925 – Gas Production and/or Distribution	
Personnel participating in inspection:		
Sophia Ong	EPA Region 6, ECADAT	Physical Scientist
Kim Nguyen	EPA Region 6, ECADAR	Physical Scientist
Brian Fontenot	LDEQ	Environmental Scientist Sr DCL-B
Andrew Mills	LDEQ	Environmental Scientist Staff DCL-A
Bailey Poole	LDEQ	Environmental Scientist III
Rahul Pendse	Venture Global	VP, Air Quality Compliance
Tyler Conlee	Venture Global	Environmental Supervisor
Santhosh Kapildev	Venture Global	Manager, Air Quality Compliance
Jeremy Smart	Venture Global	Interim Process Operations Director
Anthony Ferraro	Venture Global	Power Operations Director
Craig Miller	Venture Global	HSSE Director
Balaji Ganesan	Venture Global	Director, Environmental Engineering
Kevin Polinkas	Venture Global	Engineer, Production
EPA Lead Inspector Signature/Date		
	Sophia Ong	Date
Supervisor Signature/Date		
	Kayla Buchanan	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors Sophia Ong (“I”) and Kim Nguyen (“we” or the “EPA inspectors”) arrived at the Venture Global Calcasieu Pass, LLC (“Venture Global” or the “Facility”) at 9:41 am on December 4, 2024, for an unannounced inspection. We were accompanied by Brian Fontenot, Andrew Mills, and Bailey Poole (“LDEQ inspectors”) from the Louisiana Department of Environmental Quality (“LDEQ”). We met with Venture Global representatives Tyler Conlee, Environmental Supervisor, and Santhosh Kapildev, Air Quality Compliance Manager in a conference room of the site’s main administrative building for the Opening Conference. I presented my credentials to Mr. Conlee and Mr. Kapildev and informed them that this was an EPA inspection to determine compliance with the Facility’s Title V Air Permit and the Clean Air Act (“CAA”). The scope of the inspection is a partial compliance evaluation (“PCE”) and includes evaluation of the compliance of the Facility with its Title V operating permit, Louisiana State Implementation Plan (“SIP”), and applicable CAA Regulations listed under Parts 60 and 63 of Title 40 of the Code of Federal Regulations (“CFR”). This inspection specifically focuses on the Facility’s flares. The Facility is the subject of several citizen complaints regarding flaring. LDEQ was on-site to conduct a full compliance evaluation inspection under its delegated state CAA state program simultaneously and independently from the EPA CAA inspection.

FACILITY DESCRIPTION

Venture Global Calcasieu Pass, LLC and TransCameron Pipeline, LLC operate the natural gas liquefaction (“LNG”), storage, and export terminal facility on the east side of the Calcasieu Ship Channel in Cameron, Louisiana. The Facility has approximately 400 employees and operates continuously at 24 hours a day, 7 days a week, for a total of 8,760 hours per year.

Pipeline quality natural gas is delivered to the Facility through the associated TransCameron Pipeline/East Lateral natural gas pipeline. This natural gas pipeline provides feed gas for the liquefaction and power generation facilities. The feed gas is processed first in pre-treatment trains. The gas flows through three blocks, each containing an acid gas removal system, and then a dehydration system.

Following pre-treatment, the purified feed gas flows to the nine individual liquefaction blocks, each comprised of two parallel liquefaction units. The produced LNG is then delivered to the two LNG storage tanks at or near atmospheric pressure. There are two LNG berthing docks with loading arms for LNG export via marine vessels on the Calcasieu Ship Channel.

Venture Global Calcasieu Pass has completed most of the construction of its Facility, yet the commissioning phase remains on-going. The LNG export facility commissioning process involves verifying and testing all systems, from pretreatment to liquefaction, ensuring the facility is ready for commercial LNG production and delivery, including activities like cleaning, flushing, verifications, leak tests, and performance evaluations. Venture Global Calcasieu Pass loaded its first cargo ship on February

26, 2022. Since that date, Venture Global Calcasieu Pass has continued to export cargoes on an on-going basis.

Vent and flare systems operate as needed to allow for the safe disposal of plant-relieved gases to atmosphere. There are four flares: Warm Flare (EQT 0013), Cold Flare (EQT 0014), Low-Pressure (LP) Vent Flare (EQT 0015), and Backup Warm/Cold Flare (EQT 0016). The four flare systems are continuously purged with nitrogen in order to maintain a positive pressure and to prevent atmospheric air from being drawn into the flare network.

The Warm Flare system collects fluids from systems relieving water-saturated gases and warm, wet hydrocarbon gases. Discharges from the following systems are routed to the warm flare: gas gate station, acid gas removal, gas dehydration, fuel gas system, HC (hydrocarbon) condensate system, and hot oil system. The Cold Flare system is designed to handle vapor discharges of dried and cold gases and will collect discharges from two sources: cold dry gas flare header for collection of dry cryogenic gases (liquefaction and refrigerant storage systems) and cold liquid drain header for collection of cryogenic liquids. The Backup Warm/Cold Flare only operates when either the Warm Flare or Cold Flare are not in operation.

The LP Vent Flare system is dedicated to handling the low-pressure discharges from the LNG storage tanks and loading area. The LP Vent Flare serves primarily as an emergency flare, except during gas-up or cool-down operations, when these emissions are vented to the flare. "Gassing up" refers to filling the tanks of an LNG carrier with natural gas, while "cool-down" involves lowering the temperature of the tanks to cryogenic (i.e. low subfreezing) conditions to allow the gas to liquefy. Gassing up operations are performed under a "holding" mode. In this mode, LNG is circulated from an LNG storage tank via the loading line and recirculating lines and then returned to the same LNG storage tank.

Venture Global operates under Title V Permit No. 0560-00987-V4 and Prevention of Significant Deterioration ("PSD") Permit No. PSD-LA-805(M-4) issued by the Louisiana Department of Environmental Quality on July 1, 2021. A combined Title V permit renewal with significant modification and PSD permit major modification application was submitted to LDEQ on March 17, 2023. LDEQ issued the revised permits on March 10, 2025.

Section II – OBSERVATIONS

On December 4, 2024, the EPA inspection team met with Venture Global representatives in the conference room at 9:50 am to discuss the scope of the inspection and planned inspection activities. We shared our intent to tour the Facility and conduct interviews with Facility personnel throughout the inspection. The sign-in sheet for the Opening Conference is attached as Appendix 2. Mr. Conlee provided us with an overview of the Facility's operations. We watched a visitor orientation training safety video in the conference room at 10:21 am.

After the Opening Conference, we entered the Venture Global facility at 11:03 am. Mr. Conlee and Mr. Kapildev accompanied us during the Facility tour. LDEQ inspector Brian Fontenot operated an Infrared

Cameras Inc. Gas Detect IR VOC ATEX Optical Gas Imaging (“OGI”) camera while in the field to observe emissions from equipment at the site. The log of videos taken during the inspection is found in Appendix 1.

At 11:07 am, we arrived at the LP Vent Flare (EQT 0015). The LP Vent Flare is an elevated, single tip, non-air, non-steam assisted flare. The LP Vent Flare handles the low-pressure discharges from the LNG storage tanks and loading area. LDEQ observed the LP Vent Flare using the OGI camera, and we observed no detectable hydrocarbon emission trails.

At 11:20 am, we arrived at the Warm Flare (EQT 0013), Backup Warm/Cold Flare (EQT 0016), and Cold Flare (EQT 0014). The Warm Flare, Cold Flare, and Backup Warm/Cold Flare are elevated, single tip, air assisted flares. All three flare stacks are collocated. LDEQ observed the Warm Flare, Backup Warm/Cold Flare and Cold Flare using the OGI camera. During the observation, we observed uncombusted hydrocarbon emission trails from the Warm Flare (left stack) using the OGI camera on December 4, 2024 (Appendix 1, Video 1) [AOC 1].

After observing the flares, we began the Facility process tour. We drove by the gas gate station where natural gas enters the Facility via a 42-inch pipeline. At 11:35 am, we arrived at the four diesel-powered firewater pump engines where LDEQ inspectors observed nameplates and began their separate compliance inspection. All four firewater pump engines were not operating during the inspection. At 11:49 am, we arrived at the four diesel-powered emergency generator engines. All four emergency generator engines were not operating during the inspection. At 12:31 pm, we arrived at the five combined cycle gas turbine engines and associated heat recovery steam generators. Four turbines were operating normally, except for Turbine No. 4, which was down at the time of EPA’s inspection. LDEQ inspectors recorded real time continuous emission monitoring systems (“CEMS”) readings for the turbines, and EPA inspectors assisted LDEQ by checking expiration dates on the calibration gases at each turbine’s CEMS shelter.

At 1:38 pm, we drove by the mercury recovery units (“MRU”), three dehydration units, three acid gas/amine units, two thermal oxidizer units, and four hot oil heaters. Mr. Conlee described the process as follows: natural gas comes into the Facility and is routed to the MRU and then to the pre-treatment system, which consists of the acid gas removal amine treatment and dehydration units. All three dehydration units, all three amine units, and hot oil heater A, B, and C were in operation during the inspection.

After the pre-treatment process, the gas flows into the “cold box”, which houses refrigerant associated with the nine individual liquefaction blocks (identified as LTS 1-9). Each liquefaction block consists of two parallel liquefaction units designated as “A” or “B”, making a total of eighteen individual liquefaction trains. Mr. Conlee confirmed that all eighteen liquefaction trains had been constructed, commissioned, and were available to operate at the time of EPA’s inspection. According to Mr. Conlee, during the liquefaction process the liquid natural gas is cooled to remove impurities, and then flows to one of two LNG storage tanks where the material is held until it is ready to be exported via marine cargo vessel.

During the final part of the Facility process tour, we observed the boil off gas (“BOG”) system. Mr. Conlee explained that the BOG consists of flash-evaporated vapor that separates from the LNG product. The BOG flash gas is collected by the BOG compressor and routed back to the fuel gas system.

As we passed the marine shipping dock at 1:59 pm, I observed the *Gaslog Savannah*, an LNG tanker marine vessel, at Dock 4 with the loading arms down, which indicated the ship was actively loading LNG product.

At 2:15 pm, EPA and LDEQ inspectors returned to the turbine CEMS systems to continue the calibration gas checks. By 2:45 pm, we entered the facility’s on-site laboratory. The Venture Global laboratory technician explained that they analyze the sulfur content of the fuel gas in-house weekly and submit a sample monthly to an external lab, SPL. According to the technician, the maximum sulfur content in LNG products that are produced by and shipped from the facility is 7 parts per million (ppm) and the permitted sulfur content for fuel gas is 4 ppm, which is the limit required for combusting the fuel gas in the turbines. Fuel gas generated by different processes is reused within the facility.

We concluded the site tour at 3:15 pm. The EPA inspection team returned to the conference room to review the inspection activities conducted during the day and debriefed Facility personnel. EPA completed the debriefing meeting at 4:10 pm and departed the Facility at 4:25 pm.

EPA inspectors and LDEQ inspectors returned to the Facility at 9:43 am on December 5, 2024, and met with Facility personnel identified on the cover page of this inspection report. EPA and LDEQ inspectors conducted interviews with these Facility representatives in the conference room. During this time, Mr. Pendse stated that the Facility vented acid gas and supplemental fuel gas to the Warm Flare during the previous day. EPA notes that there was also a citizen complaint filed with LDEQ for smoking emissions, high bright flames, and nuisance odors from two of the flares on the evening of December 3, 2024 (Incident #24240291, T221995).

Mr. Smart stated the Facility was currently completing a maintenance project for removing flash gas in the pre-treatment system to improve thermal oxidizer efficiency. Venture Global will reroute and recirculate the flash gas to the low pressure (LP) fuel gas system instead of combusting it at the acid gas thermal oxidizer. The first part of the project involved adding a valve and started the week before the EPA inspection with the first liquefaction train. This part of the project was completed the previous night on December 4, which included re-routing and interconnection of the hydrogen sulfide (H₂S), carbon dioxide (CO₂), and moisture removal pre-treatment systems. There is a nitrogen system which is used to furnish purge gas throughout the facility. For the flare systems in particular, the nitrogen purge gas is introduced to each flare downstream of the British Thermal Unit (BTU) analyzer to prevent air from entering the flare tip. According to Mr. Smart, equipment startup may result in vent gas flaring, and he confirmed that on December 4, 2025, there was flow of inert nitrogen purge gas and acid gas to the Warm Flare. The acid gas flow was vented from the overhead amine unit regenerator associated with the acid gas removal units.

According to Mr. Smart, on December 4, 2024, there were sixteen compressor units in operation. One liquefaction train and the 4A compressor were running but not producing LNG. Two trains, 9A and 2B, were down and not in operation. A total of fifteen out of the eighteen LNG liquefaction trains were in full operation and produced 1.45 billion cubic feet LNG.

Mr. Smart explained that the *Gaslog Savannah* marine vessel which the EPA inspection team had observed the previous day at the dock started loading LNG on December 4, 2024, at 8:15 am and finished loading (arms lowered and removed from the dock) at 10:08 pm. The ship departed at 12:37 am on December 5, 2024. It took approximately 14 hours to load the vessel. Mr. Smart further explained the Facility's LNG marine vessel loading process. The temperature needed for the vessel to load is approximately -120 degrees Fahrenheit (°F) to -140°F. It takes anywhere from 8 to 16 hours to cool down the vessel in preparation prior to loading. LNG is used for the cool down process and becomes vaporized as BOG during this time. The BOG is suctioned out by the BOG compressors. Gassing up operations are performed on marine cargo vessels within a nitrogen or other non-methane transfer environment. The vessel's environment then needs to be changed to accommodate methane via LNG recirculation. Therefore, the cargo vessel must gas up and then cool down prior to loading the LNG product. According to Mr. Smart, a typical LNG cargo vessel has approximately 160,000 cubic meters loaded capacity. There are two marine loading docks at the Facility; however, only one cargo vessel can be loaded at a time.

At Power Island, which supplies electric power for the entire Venture Global Calcasieu Pass facility, the Facility has five combined cycle combustion turbines with associated duct-fired heat recovery steam generators ("HRSG"). According to Mr. Smart, Venture Global currently is repairing faulty welds in the HRSG coils. HRSG #2, HRSG #4, and HRSG #5 had completed repairs prior to the EPA inspection. At the time of our inspection, HRSG #3 was out of service for the same welding repairs. The remaining repair on HRSG #1 will begin after completion of repairs on HRSG #3. Mr. Ferraro stated it will take approximately 75 to 100 days to complete the welding repairs on all the HRSG coils.

I requested additional information about the flare systems. According to Mr. Smart, normal flare operation includes purging with nitrogen gas and ensuring the pilot light is lit. Supplemental gas includes fuel gas generated at the facility. Supplemental fuel gas is used to ensure that 40 CFR 60.18(c)(3)(ii) requirements for minimum heating values are met at each flare. Mr. Polinkas explained that "sweep gas" consists of either fuel gas (which is primarily methane) or BOG (which is over 90% methane), with nitrogen as the remaining balance. For a flare, *sweep gas* refers to the minimum amount of gas necessary to maintain a constant flow of gas through the flare header in order to prevent oxygen buildup, corrosion or freezing in the flare tip or header. Mr. Smart indicated that there is not continuous venting of waste gas streams to the flares, so sweep gas is used to maintain constant gas flow and keep the pilot flames lit. Flaring for extended periods occurs when the Facility experiences an upset, startup, shutdown, or maintenance activity. Mr. Ganesan informed me that air permit startup and shutdown emission limits do not apply during commissioning activities. He reiterated that the Backup Warm/Cold Flare (EQT 0016) is only utilized when there is blower maintenance at either the Warm Flare (EQT 0013) or the Cold Flare (EQT 0014). Flow and composition of the vent gases to the flares are continuously

monitored by a gas chromatography analyzer, located adjacent to the two knockout drums of the Warm Flare and Cold Flare. On the air-assisted flares, air is introduced around the perimeter of the flare stacks. Mr. Polinkas provided a general overview of the waste gas streams vented to each flare. The Warm Flare controls waste gas streams from utilities and the pre-treatment system. The Cold Flare controls waste gas streams from the cryogenic liquefaction systems. The LP Vent Flare controls waste gas streams from the marine vessel cool down, marine vessel loading, and the BOG compressors.

Section III – AREAS OF CONCERN

Closing Conference

EPA Region 6 inspectors Sophia Ong and Kim Nguyen conducted a Closing Conference at the Facility at 12:50 pm on December 5, 2024. Facility representatives present for the closing conference are noted on the closing conference sign-in sheet in Appendix 2. During the Closing Conference, I summarized the inspection team's Facility tour observations, including the Areas of Concern ("AOC") noted. At the conclusion of the closing conference debriefing, EPA inspectors notified Venture Global that a records request would be sent to Facility representatives via e-mail. During the Closing Conference, the Facility made a claim of confidential business information ("CBI") regarding the OGI video taken on-site. On December 5, 2024, the company's responsible official signed the confidentiality notice indicating that Venture Global would notify EPA within 5 calendar days regarding any additional confidentiality claims. The Facility was informed that a copy of the OGI video would be made available to the facility following the inspection. We departed the Facility at 1:45 pm.

AOC #1

During the observation, trailing uncombusted hydrocarbon emissions were observed from the Warm Flare using the OGI camera on December 4, 2024.

Section IV – INSPECTION FOLLOW UP

On December 10, 2024, the company sent an e-mail to EPA stating that Venture Global believed that no CBI claim was necessary at that time, as there were no documents furnished during the inspection or provided to EPA. Venture Global indicated that any subsequent claim of confidentiality would accompany the company's response to EPA's information request at the time of submittal (see Appendix 2). During a virtual meeting with Venture Global's Senior Counsel, Environmental and Regulatory, on December 12, 2024, I requested clarification regarding the Facility's CBI claim for the OGI video taken during the inspection. Venture Global confirmed that they withdrew the CBI claim regarding the OGI video taken on December 4, 2024.

The EPA Lead Inspector requested records and additional information via e-mail on December 6, 2024. After two virtual meetings EPA held with Venture Global on December 12, 2024, and December 13, 2024, we provided a revised records request with additional clarifications via e-mail on December 6, 2024, with new extension deadlines for Venture Global to submit their response to EPA (see Appendix 4). EPA received responses with requested information on December 20, 2024, January 6, 2025, and

January 13, 2025. However, Venture Global also advised EPA that certain information we requested was claimed as Critical Energy Infrastructure Information (CEII) under provisions of the Federal Energy Regulatory Commission (“FERC”) rules, 18 C.F.R. 388.113(c) and (d). Venture Global advised EPA that CEII records could be obtained by submitting a request to FERC for the pertinent information EPA needs to review to make rule applicability and compliance determinations regarding the LNG terminal. See Appendix 5 for the details of Venture Global’s response received on December 20, 2024.

EPA notes that Venture Global submitted a Notification of Date of Actual Start-Up for the five turbines to LDEQ, dated March 27, 2025 (see Appendix 6). The notification includes the operating startup dates for each turbine and Venture Global’s determination of the effective date for applicability of the National Emission Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, 40 CFR Part 63, Subpart YYYY.

Section V – LIST OF APPENDICES

Appendix 1 – Video Log – 1 OGI video taken 12/04/2024

Appendix 2 – Opening and Closing Conference Sign-in Sheets

Appendix 3 – EPA Confidentiality Notice

Appendix 4 – Information and Records Request

Appendix 5 – Venture Global Response, 12/20/2024

Appendix 6 – Venture Global Start-Up Notification to LDEQ, 3/27/2025

Venture Global Calcasieu Pass, LLC / Calcasieu Pass Project
Inspection Date 12/04/2024 – 12/05/2024

Appendix 1

Video Log

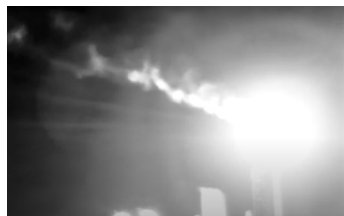


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Appendix 1

Video Log

Location: Venture Global Calcasieu Pass, LLC / Calcasieu Pass Project		
City: Cameron	County: Cameron Parish	State: Louisiana



Video 1

Video File Name: [20230831043104_00.mp4](#)

Date of Video: 12/04/2024

Time of Video: 11:20 am

Videographer: Brian Fontenot

Description: Hydrocarbon emissions observed from the Warm Flare

Thermal Camera Temperature Measurement Calibration Test Report

A. Test Item: Temperature measurement function

B. Type: Gas DetectIR VOC ATEX Serial number: 21000095

Test equipments and standard

- 1) High temperature black body BB-4A (temperature range: 100 ~ 1000°C, Temperature accuracy: $\leq 1^{\circ}\text{C}$, Emissivity: ≥ 0.98)
- 2) Precise black body 9133 (temperature range : $-20^{\circ}\text{C} \sim 160^{\circ}\text{C}$, Emissivity: ≥ 0.95)
Precise black body 9132 (temperature range: $50^{\circ}\text{C} \sim 500^{\circ}\text{C}$, Emissivity: ≥ 0.95)
- 3) Test Standard: IEC 17025

D. Test time: 08/2024

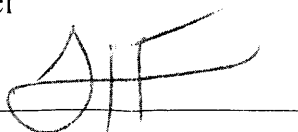
E. Environment request: Temperature: $25 \pm 2^{\circ}\text{C}$ Relative Humidity: $50 \pm 5\%$

F. Test Method:

- 1) Start the black body, Temperature value from -20°C to 350°C . Temperature value clicking as follows establishes, Treating to stabilize 30 minutes after attaining the initial value.
- 2) Turn on the camera, Aim at each black body, Write down the actual temperature.

Calibrated by: Taylor Forister

Certified Signature



Date 08/06/2024

G. Temperature measurement form:

Standard lens Aperture 24°

Temperature	Low T Range	Temperature	Midd T Range	Temperature	High T Range
-20	-20.1	60	60.1	180	180.2
-10	-10.2	70	69.4	200	200.4
0	0.2	80	81.1	225	226.1
10	9.1	90	90.4	250	251.2
20	19.1	100	100.4	275	275.4
30	30.2	110	109.2	300	301.2
40	39.4	120	121.1	325	326.3
50	49.0	130	130.4	350	350.2
60	61.4	140	140.7		
		150	151.4		
		160	161.2		
		170	169.8		
		180	180.4		

Appendix 2
Opening and Closing Conference
Sign-in Sheets

Opening/Pre-Inspection MeetingCommence opening/pre-inspection meeting Time: 0950

Name	Title	Representing	Telephone No.
Tyler Conlee	Environmental Supervisor	VG Calcasieu Pass	1
SANTOSH KAPILDEVI	Manager, Air Quality Compliance	VG LNG	
Andrew Mills	Env. Scientist	LDEQ	
Bailey Poole	Env. Scientist	LDEQ	
BRIAN FONTENOT	Env. Scientist	LDEQ	2
KIM NGUYEN	Inspector	US EPA	1 2 3 4 5 6 7 8 9 0 A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
Sophia Ong	Physical Scientist	US EPA	1
1515 ↓ Jeremy Smart	Interim OPS Director-Process	VG	
Tony Ferraro	Power Ops Director	VG	
Craig Miller	HSS&E Director	VG	

Conclude opening/pre-inspection meeting Time: 1045Initials / Date: KD / 12/4/24

Appendix 3

EPA Confidentiality Notice



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
1201 ELM STREET - SUITE 500
DALLAS, TEXAS 75270

CONFIDENTIALITY NOTICE (40 C.F.R. § 2.203)

Company/Facility Name: Venture Global Calcasieu Pass, LLC	
Facility Address: 516 David Road, Cameron, LA 70631	
Inspector Name (<i>print</i>): Sophia Ong	
U.S. EPA, Region 6, 1201 Elm Street – Suite 500, Dallas, TX 75270	Inspection Date: Dec 4-5, 2024

If no business confidentiality claim accompanies the information provided to EPA during this inspection or information you submit later, then EPA may make the information available to the public without further notice to the business. EPA's regulations that govern the confidentiality of business information are contained in 40 C.F.R. Part 2, Subpart B. You may assert a business confidentiality claim covering part or all of the information submitted, in the manner described by 40 C.F.R. § 2.203(b), which states:

(b) *Method and time of asserting business confidentiality claim.* A business which is submitting information to EPA may assert a business confidentiality claim covering the information by placing on (or attaching to) the information, at the time it is submitted to EPA, a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as *trade secret*, *proprietary*, or *company confidential*. Allegedly confidential portions of otherwise non-confidential documents should be clearly identified by the business, and may be submitted separately to facilitate identification and handling by EPA. If the business desires confidential treatment only until a certain date or until the occurrence of a certain event, the notice should so state.

However, certain categories of information outlined in 40 C.F.R. §§ 2.301-2.311, such as emission data and effluent data, or other information that is otherwise publicly available, are not eligible for confidential treatment.

If you claim any of the information submitted to be trade secret or other confidential business information, you must specify each record or portion of the record for which you assert a claim. Information covered by such a claim will be disclosed by EPA only to the extent, and by the means of the procedures, set forth in 40 C.F.R. Part 2, Subpart B. All business confidentiality claims are subject to a determination by EPA of whether the business information is entitled to confidential treatment. If EPA needs to determine whether the information is entitled to confidential treatment, then you will receive written notice and opportunity to comment (Attachment 1) requesting that you substantiate your business confidentiality claims. EPA will construe your failure to assert a business confidentiality claim, or to furnish timely substantiation

comments, as a waiver of any applicable claim. Any information subsequently determined to constitute a trade secret or other confidential business information will be protected under 18 U.S.C. § 1905 and/or 5 U.S.C. § 552(b)(4).

I, ANTHONY FERRARO DIRECTOR, Power Island, hereby certify that I am a
Responsible Official's name and title (*print*)
responsible official of CALCASTEU PASS LNG, LLC, that I am in receipt
Facility's business name (*print*)
of this confidentiality notice, and that I am able to speak for the facility on this matter.

Check the appropriate box

I have read this Notice and **DO NOT** want to make a claim of business confidentiality covering any information provided to EPA during this inspection.

Signature of the Responsible Official identified above

Date

I have read this Notice and **DO** want to make a claim of business confidentiality covering information provided to EPA during this inspection.

Signature of the Responsible Official identified above

Date

I have read this Notice and **will notify** EPA in writing within 5 calendar days regarding any confidentiality claim covering the information provided to EPA during this inspection.

Signature of the Responsible Official identified above

Date

5 Dec 2024

Information for which confidential treatment is requested, if any:

Attach additional sheets if needed.

* Responsible Official refers to a facility representative with the knowledge to make a confidentiality claim.

Ong, Sophia

From: Maureen Harbourt <mharbourt@ventureglobalng.com>
Sent: Tuesday, December 10, 2024 4:26 PM
To: Lannen, Justin; Ong, Sophia
Cc: Rahul Pendse
Subject: EPA Confidentiality Notice - Venture Global Calcasieu Pass LNG, LLC
Attachments: EPA Confidentiality Notice_20241205.pdf

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Dear Justin and Sophia,

Last week at the inspection, EPA requested that the responsible official sign the attached confidentiality notice and it was signed by Anthony Ferraro, Director, Power Island, on December 5, 2024. That form indicated that Venture Global would provide a list of documents for which they would request confidentiality within 5 days. However, EPA did not copy or take any documents at the inspection (other than a copy of the sign-in sheet). EPA's data request was sent via email on December 6, 2024.

As there were no documents taken at the inspection or provided to EPA at this time, we believe that no designation of potential CBI protected documents is needed yet. However, out of an abundance of caution, we are listing the potential responses to all or parts of the following EPA data requests as information for which we may request CBI status: Responses to EPA Data Requests 2, 4, 6, 7, 8, 9, 14, 15, 16, 18, 21, 22, 28, and 29. Any request for confidentiality will accompany those responses at the time of submittal, in accordance with 40 CFR Part 2.

Sincerely,
Maureen N. Harbourt
Venture Global LNG, Inc.
Senior Counsel Environmental and Regulatory
22.5937.5274

Appendix 4

Information and Records Request

Ong, Sophia

From: Maureen Harbourt <mharbourt@ventureglobalng.com>
Sent: Sunday, December 15, 2024 11:04 AM
To: Ong, Sophia; Rahul Pendse
Cc: Lannen, Justin
Subject: Re: [EXTERNAL]: FW: EPA Clean Air Act Inspection - Venture Global Calcasieu Pass LNG Records Request

Caution: This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Thank you Sophia for these clarifications.

From: Ong, Sophia <Ong.Sophia@epa.gov>
Date: Friday, December 13, 2024 at 2:24 PM
To: Rahul Pendse <Rpendse@ventureglobalng.com>, Maureen Harbourt <mharbourt@ventureglobalng.com>
Cc: Lannen, Justin <Lannen.Justin@epa.gov>
Subject: [EXTERNAL]: FW: EPA Clean Air Act Inspection - Venture Global Calcasieu Pass LNG Records Request

Good afternoon,

As discussed today during our Teams meeting, EPA is providing revision to questions #6, #9, #13, and #26 from the original records request sent via email on December 6, 2024 (see below).

- Question #6: Provide dates of construction commencement and dates of startup for any equipment subject to NSPS/NESHAP, flares, and any emission sources routed to each flare that is listed on the emission inventory list in the Title V permit.
- Question #9: On December 4, 2024, EPA initiated an opening conference for the on-site inspection with Venture Global representatives, Tyler Conlee and Santhosh Kapildev. During this conference, the representatives stated the facility was in a “commissioning phase” because the material produced, or product, was “not on-spec”. Representatives also stated the product was considered “off-spec”. Describe and define the following terms used by representatives as they were referenced during the inspection: “not on-spec” and “off-spec.” If the company is unable to describe or define these terms, document as such in your response.
- Question #13: Please provide the following information for each flare in searchable and editable electronic format (e.g., spreadsheet):
 - a. The calculated net heating value of the vent gas, in British Thermal Units per standard cubic foot per 1-hour block;
 - b. The cumulative volumetric flow rate of the vent gas, in standard cubic feet per 1-hour block;
 - c. The cumulative volumetric flow rate of assist air, in standard cubic feet per 1-hour block; and
 - d. The composition of the total vent gas to the flare per 1 hour block.

NOTE 1: If any 1-hour block data for the subsections above are measured, but data is not available, provide an explanation for each time period missing data (e.g., flare not in service, instrumentation malfunction).

NOTE 2: If any 1-hour block data for the subsections above are not measured, please provide estimated values and how the estimation is derived.

- Question #25 VG/#26 EPA: Provide information/records (visible emission observation readings, checks and opacity logs) for all flaring events/complaints and visible emission observation records for the flares for the following requested months: Feb 2023, May 2023, Dec 2023, June 2024, Sept 2024, Oct 2024, Nov 2024, and Dec 2024 (up to date Dec 6, 2024).

EPA is requesting information outline in the original request dated December 6, 2024, and revised questions above, to be submitted no later than December 20, 2024.

For questions #13, #22(VG)/#23(EPA), and #25(VG)/#26(EPA) provide the date in which Venture Global expects to submit the documents to EPA. EPA will review and may grant the proposed extension.

Please upload the requested records to this folder  [Dec 2024 Venture Global Calcasieu Pass LNG Document Request](#). Please let me know if any other individuals (name and email) will need access to the OneDrive folder.

Sincerely,

Sophia Ong

Physical Scientist, Air Toxics Section (ECADAT)
US Environmental Protection Agency – Region 6
Office: (214) 665-2778
Cell: (225) 471-2405

From: Ong, Sophia

Sent: Friday, December 6, 2024 5:00 PM

To: rpendse@ventureglobalng.com; avaughan@ventureglobalng.com; aferraro@ventureglobalng.com

Cc: Nguyen, Kim <Nguyen.Kim.J@epa.gov>; Lundelius, Diana <Lundelius.Diana@epa.gov>

Subject: EPA Clean Air Act Inspection - Venture Global Calcasieu Pass LNG Records Request

Good afternoon,

On December 4-5, 2024, the U.S. Environmental Protection Agency (“EPA”) conducted an unannounced Clean Air Act inspection at Venture Global Calcasieu Pass LNG. We appreciated your time and cooperation during the inspection. As promised, I am providing a list of requests discussed during the closing conference on December 5, 2024. We are requesting records/data from January 1, 2022 to present. Please provide the following records/information by **COB, Friday, December 20, 2024:**

1. Site Plot Plan to scale, showing all property boundaries and directional North arrow, labeled with emission source name & ID number, consistent with data submitted for the facility’s air permit and emission inventory.
2. Detailed process flow diagram (facility wide) with labeled IDs for process equipment, pollution control equipment, stack exits, and bypasses.
3. Written detailed process descriptions for each process unit. Include descriptions of all operating scenarios (start-up, shutdown, maintenance, warm/cold standby, commissioning, shakedown, and other special circumstances).
4. Provide piping and instrumentation diagrams (P&IDs) associated with each flare (warm, cold, backup, & LP). Include additional P&IDs, if necessary, should show the flow of all materials into each flare.
5. Provide a list of each waste gas stream and/or process vent routed to each flare, and indicate whether these are continuous or intermittent streams.
6. Complete emission source inventory (facility-wide) at the Facility, including emission calculations in native format (e.g. Excel spreadsheet workbook) and rationales used for emission estimates. Include dates of installation and dates of startup for process units.
7. Define/describe the term commissioning. When is commissioning expected to be completed? Provide specific dates for progress milestone completion, and a tentative proposed date for commissioning completion. Provide

a summary of the commissioning turnaround activities, including the name of the equipment/emission sources involved, and corresponding work orders and/or testing details, with a projected timetable for the shutdown, turnaround completion, and re-start of the affected equipment.

8. Define/describe what equipment and activities are included in shakedown activities.
9. Define/describe "off-spec" as mentioned during the inspection on December 4, 2024.
10. Define/describe Startup/Shutdown (SU/SD) with respect to the flares.
11. Define/describe Gasup/Cooldown (GU/CD) with respect to the LP Flare.
12. Provide the following information for each flare at the Facility:
 - a. Date of installation;
 - b. Manufacturer and model number;
 - c. Purpose (e.g., emergency only, routine, intermittent process waste gas);
 - d. General design type (e.g., ground or elevated, multi-tip or single tip, assisted or non-assisted; if assisted, indicate whether the flare is steam, air, or pressure assisted);
 - e. Minimum assist steam and/or assist air (in scf/hr) rate at all locations on each flare, and means of control of steam and/or air (e.g., valve, bypass orifice);
 - f. Description of how the amount of waste gas, purge gas, sweep gas, supplemental gas, assist steam, and assist air is measured or monitored;
 - g. Provide manufacturer's and/or engineer design documentation, including injection point for assisted air/steam, waste gas, purge gas, sweep gas, and supplemental gas; and
 - h. Determine the unobstructed cross-sectional area of the flare tip that vent gas can pass through and provide the calculation formula to show how this value was derived;
13. Please provide the following information for each flare in searchable and editable electronic format (e.g., spreadsheet):
 - a. The calculated net heating value of the vent gas, in British Thermal Units per standard cubic foot per 15-minute block;
 - b. The cumulative volumetric flow rate of the vent gas, in standard cubic feet per 15-minute block;
 - c. The cumulative volumetric flow rate of assist steam, in standard cubic feet per 15-minute block;
 - d. The cumulative volumetric flow rate of assist air, in standard cubic feet per 15-minute block; and
 - e. The composition of the total vent gas to the flare per 15-minute block.

NOTE 1: If any 15-minute block data for the subsections above are measured, but data is not available, provide an explanation for each time period missing data (e.g., flare not in service, instrumentation malfunction).

NOTE 2: If any 15-minute block data for the subsections above are not measured, please provide estimated values and how the estimation is derived.
14. For each of the Facility flares, describe how assist steam and/or assist air is monitored or adjusted by operations staff and how assist media is adjusted in response to a smoking flare.
 - a. For each of the Facility flares, describe how the pilot flame is monitored and how the monitoring data is recorded.

Provide the monitoring data for the flare pilot flame.

Provide records of each 15-minute block during which there was at least one minute that no pilot flame is present when waste gas was routed to a flare.

- b. For each flare, provide copies of documents pertaining to operating procedures, monitoring procedures, flare performance testing, and any performance guarantees.
 - c. For each flare, state whether the flare is configured to receive gases/vapors from one or more PRDs, which is a safety device used to prevent pressures from exceeding the maximum allowable working pressure of the process equipment.
15. Define/describe an upset event with respect to each flare. Explain the criteria for an upset scenario and how flow is diverted to each flare. What is the criteria for reporting an upset event to the state?
16. Define/describe a Startup, Shutdown, and Malfunction (SSM) event with respect to each the flare. What is the criteria for reporting an SSM event to the state?
17. Define/describe a planned Maintenance, Startup, and Shutdown (MSS) event with respect to each the flare. What is the criteria for reporting an MSS event to the state?

18. What criteria does the facility use to determine that an emission release event (non-MSS) is reportable with respect to each flare? Are these criteria determined by the facility or the state? Provide written procedure to identify when the facility makes this determination and when they are required to report to the state.
19. Provide, in an electronic spreadsheet format, records of release incidents associated with the flares, including excess emissions events routed to the flare (reported and non-reported). What additional data was used to determine that the release was reportable vs non-reportable? The spreadsheet should include:
 1. Date and time of the release event (start time, end time, & duration);
 2. Which flare emission source was vented to the flare during the release;
 3. Provide calculation used to determine quantity of the released emissions from the equipment and from the flare;
 4. A summary of the each release event associated with the flares, and the identified root cause(s); and
 5. Any corrective action or monitoring initiated in response to each release event.
20. Provide, in an electronic spreadsheet format, copies of any citizen complaint logs associated with the flares. The log should include:
 1. Date and time of the complaint;
 2. Date and time of the event that occurred associated with each complaint;
 3. Location of the event about which the complaint was made;
 4. Description of complaint; and
 5. Any corrective action or monitoring activities initiated in response to the complaint.
21. Provide monthly operating hours and 12-month rolling for each flare attributed to Startup/Shutdown (SU/SD).
22. Provide monthly operating hours and 12-month rolling for the LP Flare attributed to Gasup/Cooldown (GU/CD).
23. Provide maximum actual hourly emissions (lb/hr) for each flare. Also, provide operational status of the flare at this time (e.g., start-up, commissioning, shakedown, and/or normal).
24. Provide monthly emissions and 12-month rolling emissions (ton/yr) for each flare.
25. Provide a list of employees who performs Method 9 visible emission observation readings at the facility and their training records.
26. Provide information/records (visible emission observation readings, checks and opacity logs) for all flaring events/complaints and other opacity records for the flares during normal operations.

Please upload all responses and records to the OneDrive folder by COB, Friday, December 20, 2024.  [Dec 2024](#)
[Venture Global Calcasieu Pass LNG Document Request](#) If others will also need access, please confirm names and email addresses.

Please ensure that anything Venture Global claims as Confidential Business Information (CBI) is clearly marked in the file and the file name. If the record is CBI, EPA will handle as such.

If you have any questions, please don't hesitate to contact me.

Sincerely,

Sophia Ong

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Appendix 5
Venture Global Response
12/20/2024

Calcasieu Pass LNG, LLC – Response to EPA's Data Request of December 6, 2024

1. Site Plot Plan to scale, showing all property boundaries and directional North arrow, labeled with emission source name & ID number, consistent with data submitted for the facility's air permit and emission inventory.

Response:

Venture Global Calcasieu Pass, LLC (Calcasieu Pass) does not have a site plot plan to scale showing the information requested. The application for the renewal and significant modification to the current Title V Permit No. 0560-00987-V4 (Title V- V4) and PSD Permit No. PSD-LA-805-M4 (PSD-M4) contains an Area Map with property boundaries and a directional North arrow available in Louisiana Department of Environmental Quality EDMS Document No. 13730261, at page 269, available at: <https://edms.deq.louisiana.gov/app/doc/view?doc=13730261>.

The same application shows the most up to date full Emission Inventory Questionnaires with the latitude and longitude of each point source showing source name and ID number ([EDMS Document No. 13730261](#), pages 196-256). However, it should be noted that this application requested both renewal and modification of the permits and while the latitude and longitude data are accurate, the emissions represent the values that Calcasieu Pass is requesting, not the values in the current permits Title V – V4 and PSD –M4. The Louisiana Department of Environmental Quality (LDEQ) issued proposed permits Title V – V5 and PSD-M5, but those permits have not yet been issued.

2. Detailed process flow diagram (facility wide) with labeled IDs for process equipment, pollution control equipment, stack exits, and bypasses.

Response:

Calcasieu Pass does not have a detailed process flow diagram showing the information requested, nor is such a detailed diagram required by any regulation. Figure 1-5 of the initial Title V permit and PSD permit application addendum provides a general process flow diagram, available at: <https://edms.deq.louisiana.gov/app/doc/view?doc=10505508> (Page 22 of 802).

3. Written detailed process descriptions for each process unit. Include descriptions of all operating scenarios (start-up, shutdown, maintenance, warm/cold standby, commissioning, shakedown, and other special circumstances).

Response:

The terminal is comprised of just one process unit to produce LNG, plus a power island to provide electrical power to the liquefaction and associated equipment. A detailed process description is provided in Section III (Description) of the Air Permit Briefing Sheet of the Title V Permit No. 0560-00987-V4. Refer to Pages 3 – 14 of EDMS Document ID 12782238 (<https://edms.deq.louisiana.gov/app/doc/view?doc=12782238>). In addition, detailed descriptions for the terminal operations may be found in the PSD-M4 Permit's Project Description section at Pages 10-24 and the Best Available Technology (BACT) review at Pages 25-197 of EDMS Document ID 12782238 (<https://edms.deq.louisiana.gov/app/doc/view?doc=12782238>).

The alternative operating scenarios applicable to the Calcasieu Pass facility are set forth on the Inventory Sheet at p. 50 of 86 of the Title V Permit and are identified as "SCN" for "Scenario". The emissions associated with the startup and shutdown activities of the Combined Cycle Combustion Turbines 1-5 and Smaller Aeroderivative Simple Cycle Combustion Turbine 1 with SCR, as are reflected by SCN Nos. 005-010 and SCN 013, are currently in effect. The flares are currently subject to SR No. 107 during the commissioning phase, and as discussed in response to EPA Data Request Nos. 20 and 21, below, are subject to that condition in lieu of the BACT limits in SCN Nos. 001-003 and SCNR Nos 014-015. However, the requirements of those flare SCN Nos. will become effective at the end of the commissioning period. None of the other currently permitted emission sources (such as the hot oil heaters, acid gas thermal oxidizers, generators, or tanks) are subject to alternative-operating scenarios.

The terminal is currently undergoing commissioning and is considered to be in the commissioning period. For further information concerning commissioning and shakedown, please refer to the responses to Data Request Nos. 7 and No. 8, below.

4. Provide piping and instrumentation diagrams (P&IDs) associated with each flare (warm, cold, backup, & LP). Include additional P&IDs, if necessary, should show the flow of all materials into each flare.

Response:

The piping and instrumentation diagrams (P&IDs) associated with each flare are highly confidential and also contain-extensive information considered as Critical Energy-Infrastructure Information (CEII) as defined by the Federal Energy Regulatory Commission under 18 C.F.R. 388.113 (c) and (d). Documents protected as CEII are subject to the procedures contained in 18 C.F.R. 388.113. Calcasieu Pass refers EPA to such procedures.

5. Provide a list of each waste gas stream and/or process vent routed to each flare, and indicate whether these are continuous or intermittent streams.

Response:

The waste gas streams and/or process vent routed to each flare are provided in Tables 5-1 through 5-3 and the nature as continuous or intermittent is shown for each.

Table 5-1. Waste Gas Streams and/or Process Vent – Cold Flare

Cold Flare			
Stream Name	Title V - Air Permit^[1]	Continuous or Intermittent?	Stream Primarily Routed From
Ethylene	Refrigerant Storage System	Intermittent	Ethylene Bullet
Product Gas	Liquefaction System	Intermittent	LTS ^[2]
Boil Off Gas		Continuous (Purges) and Intermittent	LTS ^[2]
Fuel Gas	Fuel Gas System (for Purge)	Continuous (Purge)	Fuel Gas System
Mixed Refrigerant	Refrigerant Storage System	Intermittent	LTS ^[2]

^[1] Refer to Pages 10-11 of 86 of Title V Air Permit No. 0560-00987-V4, available at

<https://edms.deq.louisiana.gov/app/doc/view?doc=12782236>.

^[2] Liquefaction Train System

Table 5-2. Waste Gas Streams and/or Process Vent – Warm Flare

Warm Flare			
Stream Name	Title V - Air Permit^[1]	Continuous or Intermittent?	Stream Primarily Routed From
Feed Gas	Gas Gate Station	Intermittent	PTS ^[2]
Fuel Gas	Fuel Gas System	Continuous (Purge) and Intermittent	Fuel Gas System
Dry Treated Gas	Gas Dehydration	Intermittent	PTS ^[2]
Product Gas	Acid Gas Removal	Intermittent	PTS ^[2]
Vaporized Heavy Hydrocarbons	Fuel Gas System	Intermittent	Fuel Gas System
Acid Gas	Acid Gas Removal	Intermittent	PTS ^[2]
Flash Gas	Acid Gas Removal	Intermittent	PTS ^[2]
Propane	Relief from Pressure Safety Valves	Intermittent	Propane Bullet
Pentane	Relief from Pressure Safety Valves	Intermittent	Pentane Bullet

^[1] Refer to Pages 10-11 of 86 of Title V Air Permit No. 0560-00987-V4, available at

<https://edms.deq.louisiana.gov/app/doc/view?doc=12782236>.

^[2] Pretreatment Train System.

Table 5-3. Waste Gas Streams and/or Process Vent – LP Vent Flare

LP Vent Flare			
Stream Name	Title V - Air Permit^[1]	Continuous or Intermittent?	Stream Primarily Routed From
BOG	LNG Storage Tanks and Loading Area	Continuous (Purge) and Intermittent	LNG Storage Tanks and BOG Compressors
LNG/Inert Mixture	Gas Up Operations	Intermittent (Gasup/Cooldown))	LNG Tanker (Ships) ^[2]
Fuel Gas	Fuel Gas System (for fuel gas enrichment)	Intermittent	Enrichment Skid

^[1] Refer to Pages 10-11 of 86 of Title V Air Permit No. 0560-00987-V4, available at

<https://edms.deq.louisiana.gov/app/doc/view?doc=12782236>.

^[2] Gas-up/Cooldown is not required to load every LNG tanker. It is required for loading “warm” LNG tankers.

6. Complete emission source inventory (facility-wide) at the Facility, including emission calculations in native format (e.g. Excel spreadsheet workbook) and rationales used for emission estimates. Provide dates of construction commencement and dates of startup for any equipment subject to NSPS/NESHAP, flares, and any emission sources routed to each flare that is listed on the emission inventory list in the Title V permit. [Data Request as modified by e-mail from Sophia Ong, EPA, 12/13/24]

Response:

Calcasieu Pass is not required to maintain or provide emission calculations in native format (e.g., an Excel spreadsheet workbook). However, the facility-wide emission source inventory is provided in the Inventories section of the Title V Permit No. 0560-00987-V4. Refer to Pages 47-48 of 86 (<https://edms.deq.louisiana.gov/app/doc/view?doc=12782236>). Additionally, refer to the following Title V air permit applications for the emission calculations with the rationales used for emission estimates for the emissions permitted in Title V-V4 and PSD-M4:

- For Firewater Pumps 1 – 4 (EQTs 0017 through 0020) and Diesel Storage Tank (EQT 0038), refer to Pages 60-65 of the Title V Permit and PSD Permit Minor Modification Application submitted to the Louisiana Department of Environmental Quality (LDEQ) (<https://edms.deq.louisiana.gov/app/doc/view?doc=12718901>).
- For Combined Cycle Combustion Turbines 1-5 (EQTs 0001 through 0005), Smaller Aeroderivative Simple Cycle Combustion Turbine 1 with SCR (EQT 0051), LP Vent Flare (EQT 0015), Hot Oil Heaters 5 and 6 (EQTs 0010 and 0011), Fugitive Emissions (FUG), Emergency Generators 6 and 7 (EQTs 0055 and 0056), refer to Pages 99-115 of 146 of the Title V Permit and PSD Permit Minor Modification Application submitted to the LDEQ (<https://edms.deq.louisiana.gov/app/doc/view?doc=12132988>).
- For Acid Gas Thermal Oxidizers 1-2 (EQTs 0012 and 0030), Cold, Warm, LP Vent, and Backup Warm/Cold Flares (EQTs 0013 through 0016 and SCNs 0001 through 0003 and SCN 0014), Emergency Generators 1-5 (EQTs 0021 through 0025), Hot Oil Heaters 1-4 (EQTs 0006 through 0009), Pentane Storage Drum (EQT 0033), Amine (DEA) Solvent Surge Storage Tank refer to Appendix C (Page 279 of 678) of the Initial Title V and PSD Permit Application Addendum (<https://edms.deq.louisiana.gov/app/doc/view?doc=11192501>). Note that the Acid Gas Thermal Oxidizer 2 is authorized under a cap along with the Acid Gas Thermal Oxidizer 1; thus, no separate calculations were provided. Additionally, the Backup Warm/Cold Flare (EQT 0016) will operate in-lieu of Warm or Cold Flares; thus, no separate emission calculations were provided.

The construction commencement and startup dates for the requested emission sources are provided in Table 6-1, below.

Table 6-1. Construction Commencement and Startup Dates

EQT ID	Source Description	Construction Commencement Date	Actual Startup Date
EQT0001	Combined Cycle Combustion Turbine 1	January 24, 2020	July 26, 2022
EQT0002	Combined Cycle Combustion Turbine 2		August 16, 2022
EQT0003	Combined Cycle Combustion Turbine 3		September 18, 2022
EQT0004	Combined Cycle Combustion Turbine 4		March 21, 2022
EQT0005	Combined Cycle Combustion Turbine 5		March 21, 2022
EQT 0006	Hot Oil Heater 1	March 25, 2020	November 23, 2021
EQT 0007	Hot Oil Heater 2		January 4, 2022
EQT 0008	Hot Oil Heater 3		January 22, 2022
EQT 0009	Hot Oil Heater 4		December 4, 2021
EQT 0051	Smaller Aeroderivative Simple Cycle Combustion Turbine 1 with SCR	January 24, 2020	July 31, 2021
EQT 0013	Cold Flare	June 9, 2020	January 10, 2022
EQT 0014	Warm Flare		October 22, 2021
EQT 0015	LP Vent Flare		January 12, 2022
EQT 0016	Backup Warm/Cold Flare		November 20, 2021
EQT 0039	Condensate Tank	Not subject to NSPS	Not In Condensate Service Yet
EQT 0033	Pentane Storage Tank	Not subject to NSPS	December 28, 2021
EQT 0052	Amine Flash Drum 1	Not subject to NSPS	January 1, 2022
EQT 0053	Amine Flash Drum 2	Not subject to NSPS	April 16, 2022
EQT 0054	Amine Flash Drum 3	Not subject to NSPS	August 20, 2022

7. Define/describe the term commissioning. When is commissioning expected to be completed? Provide specific dates for progress milestone completion, and a tentative proposed date for commissioning completion. Provide a summary of the commissioning turnaround activities, including the name of the equipment/emission sources involved, and corresponding work orders and/or testing details, with a projected timetable for the shutdown, turnaround completion, and re-start of the affected equipment.

Response:

Use of the term “commissioning period,” as used in Title V Permit No. 0560-00987-V4 refers to the period from the start-up of the first equipment authorized by the permit until the time period that the facility has been determined by the Federal Energy Regulatory Commission (“FERC”) to be “in-service.” As noted in the facility’s Title V Air Permit, Briefing Sheet: “The commissioning activities are necessary to ensure facility-wide equipment is in proper working order to safely produce LNG. Such activities include, but are not limited to, inerting of all systems, purging of nitrogen with natural gas, startup/blowdowns associated with pretreatment and liquefaction, cool down of LNG tanks, and commissioning of facility turbines.” Refer to LDEQ EDMS Document No. 12563561, at p. 19

(<https://edms.deq.louisiana.gov/app/doc/view?doc=12563561>). Note that when one or more turbines are shutdown, other equipment must also be shutdown, resulting in potential purging for shutdown, inerting equipment for safety purposes, and restarting when sufficient power is available.

Commissioning activities are expected to be completed by the end of March 2025, at which time all of the facilities comprising the Calcasieu Pass Facility should be completed and placed “in-service” with FERC.

The remaining commissioning activities and anticipated milestones were discussed in a recent FERC Inspection Report, based on its inspection of November 13, 2024. That report stated:

While construction of the terminal has largely concluded, Venture Global is undertaking several projects to correct equipment performance deficiencies, including a project to correct Heat Recovery Steam Generator (HRSG) performance issues in the power island. FERC staff reviewed the ongoing HRSG work and progress to date at the site. Since the previous FERC construction inspection in August 2024, HRSG 373 has completed the HRSG remediation and has been returned to service. Initial results show the repairs have been successful and HRSG 373 water consumption will continue to be monitored by site personnel [sic]. Work is ongoing with the next HRSG requiring tube repairs. At the time of the inspection, HRSG 374 was out of service, with all old tubes removed, nearly 70% of the new tubes installed, and welding underway. FERC staff will continue to monitor the progress of HRSG 374 and review associated conditions of the order that require FERC review and approval prior to the reintroduction of hazardous fluids in these systems. To date, three of the five HRSGs have had their permanent boiler tube repairs with progress underway on the fourth. The fifth and final HRSG remediation project is expected to begin before the end of the 2024 calendar year on HRSG 371.

* * *

Venture Global updated FERC staff on the progress of other efforts to correct unexpected equipment performance. At the time of the inspection, two gas processing units had been in outages to implement modifications to remedy performance shortfalls. FERC staff found that the Venture Global team was approaching the diagnosis and remediation of the equipment performance in a careful, technically sound manner to correctly identify the problem, and work collaboratively with the equipment vendor and other industry experts to establish a permanent solution to resolve the equipment performance. FERC staff will continue to track Venture Global's progress in resolving these open equipment performance issues. As these remediation evaluations continue, if solutions are identified requiring construction of new, or modification of existing installations, Venture Global would provide construction packages to FERC for review and approval.

See Venture Global Calcasieu Pass, LLC, FERC Inspection Report, FERC Docket No. CP15-550, (issued Dec. 12, 2024) (Accession No. 20241210-3002), available at: https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20241210-3002&optimized=false. Due to inclement weather and complications encountered, the timeline for completing the remaining repairs to the HRSGs has shifted since this inspection report was issued but the repairs are anticipated to be completed by the end of February 2025.

The repair/rectification work on each HRSG is documented in detailed reports to FERC that are considered as Critical Energy Infrastructure Information (CEII) pursuant to 18 C.F.R. 388.113(c) and (d). The scope of the repair/rectification work was reviewed and approved by FERC. See *Venture Global Calcasieu Pass, LLC*, Notice to Proceed with Heat Recovery Steam Generator Modifications, Letter Order (issued Oct. 12, 2023) (Accession No. 20231012-3072) available at: https://elibrary.ferc.gov/eLibrary/filelist?accession_number=20231012-3072&optimized=false. Documents protected under CEII status are subject to the procedures under 18 C.F.R. 388.113. Calcasieu Pass refers EPA to these procedures.

8. Define/describe what equipment and activities are included in shakedown activities.

Response:

The term shakedown refers to the period between the actual start-up of a piece of equipment subject to an NSPS standard that requires performance testing until the completion of the performance test. This commonly used term is based on the provisions of 40 C.F.R. § 60.8(a) which provides:

§ 60.8 Performance tests.

(a) Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

For Calcasieu Pass, this shakedown period is applicable to all turbines (subject to 40 C.F.R. Part 60, Subparts A and KKKK) and hot oil heaters (subject to 40 C.F.R. Part 60, NSPS Subparts A and Db). The activities that are included during the shakedown period vary with the type of equipment involved but generally include checking equipment for any leaks or mechanical issues, making adjustments, tuning, testing different operating conditions, and addressing any deficiencies found.

LDEQ rules specifically use the term shakedown to refer to this period in LAC 33:III.537, General Condition VIII, as follows:

VIII. The emissions testing described in Louisiana General Condition VII, or established in the Specific Requirements of the permit, shall be conducted within 60 days after achieving normal production rate or after the end of the shakedown period, but in no event later than 180 days after initial start-up (or restart-up after modification). The Office of Environmental Services shall be notified at least 30 days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Office of Environmental Services within 60 days after the completion of testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling ports in stacks or ducts and such other safe and proper sampling and testing facilities as are necessary for proper determination of the emission limits.

9. On December 4, 2024, EPA initiated an opening conference for the on-site inspection with Venture Global representatives, Tyler Conlee and Santhosh Kapildev. During this conference, the representatives stated the facility was in a “commissioning phase” because the material produced, or product, was “not on-spec”. Representatives also stated the product was considered “off-spec”. Describe and define the following terms used by representatives as they were referenced during the inspection: “not on-spec” and “off-spec.” If the company is unable to describe or define these terms, document as such in your response.

Response:

Calcasieu Pass believes that EPA may have misunderstood any comments during the referenced discussion. To the best of our knowledge, facility representatives indicated that while they believed commissioning was ongoing due to equipment not meeting specifications; they did not indicate that any product did not meet specifications. Further, Mr. Conlee and Mr. Kapildev clearly stated that they were not knowledgeable people on commissioning and that EPA would need to discuss this topic with operations personnel. Also, please refer to the response to Data Request No. 7, above.

10. Define/describe Startup/Shutdown (SU/SD) with respect to the flares.

Response:

Startup and shutdown with respect to the flares means the startup and shutdown of equipment venting to the flares. Refer to the response to Data Request No. 15 for further information on startup and shutdown. Further, PSD-M4 describes the flare system operations on pages 16-18 of EDMS Document ID 12782238 (<https://edms.deq.louisiana.gov/app/doc/view?doc=12782238>).

11. Define/describe Gasup/Cooldown (GU/CD) with respect to the LP Flare.

Response:

The initial application for the Title V permit describes the flare system and gas-up/cooldown (GU/CD) operations on Pages 33-36 of 802 ([EDMS Document ID 10505508](#)). Please note at the time of initial application, GU/CD operations was to be handled by a Marine Flare; however, that flare was later removed from the project and emissions from GU/CD operations were authorized under the LP Vent Flare in a subsequent Title V permit modification (refer to [EDMS Document ID 12132988](#)).

12. Provide the following information for each flare at the Facility:
- Date of installation;
 - Manufacturer and model number;
 - Purpose (e.g., emergency only, routine, intermittent process waste gas);
 - General design type (e.g., ground or elevated, multi-tip or single tip, assisted or non-assisted; if assisted, indicate whether the flare is steam, air, or pressure assisted);
 - Minimum assist steam and/or assist air (in scf/hr) rate at all locations on each flare, and means of control of steam and/or air (e.g., valve, bypass orifice);
 - Description of how the amount of waste gas, purge gas, sweep gas, supplemental gas, assist steam, and assist air is measured or monitored;
 - Provide manufacturer's and/or engineer design documentation, including injection point for assisted air/steam, waste gas, purge gas, sweep gas, and supplemental gas; and
 - Determine the unobstructed cross-sectional area of the flare tip that vent gas can pass through and provide the calculation formula to show how this value was derived;

Response for Data Request 12.a - 12.d:

Table 12-1, below, provides the date of installation, manufacturer name, purpose, and flare design for the Cold, Warm, LP Vent, and Backup Warm/Cold Flares.

Table 12-1. Warm, Cold, LP Vent, and Backup Warm/Cold Flares Information

Flare ID	Description	Construction Start Date	Manufacturer	Model	Purpose	Flare Design
EQT 0013	Warm Flare	6/9/2020	Zeeco	Not Applicable	Intermittent	Elevated, Single Tip, Air Assisted
EQT 0014	Cold Flare	6/9/2020	Zeeco	Not Applicable	Intermittent	Elevated, Single Tip, Air Assisted
EQT 0015	LP Vent Flare	6/9/2020	Zeeco	Not Applicable	Intermittent	Elevated, Single Tip, Non-Assisted
EQT 0016	Backup Warm/Cold Flare	6/9/2020	Zeeco	Not Applicable	Intermittent	Elevated, Single Tip, Air Assisted

Response for Data Request 12.e:

The design air flow rate for the Cold Flare and Backup Flare blowers is 154,730 standard cubic feet per minute (SCFM) each. The design air flow rate for the Warm Flare blower is 68,270 SCFM. Assist air is auto managed by a Variable Frequency Drive (VFD) motor controller in response to the volume of flare gas and the heating value of the flare gas. Accordingly, based on the flare gas flow rate and heating value, sufficient assist-air is automatically injected at the flare-tip by the VFD motor controller.

Note that LP Vent Flare is not assisted.

Response for Data Request 12.f

The amount of waste gas, purge gas, sweep gas, and supplemental gas is measured based on flow meters and engineering calculations. As provided in response to Data Request 12.e, the assist-air is auto-managed by a Variable Frequency Drive (VFD); thus, no monitoring of the assist-air flowrate is required on a routine basis. Also, no regulatory requirement is applicable to Calcasieu Pass that would require monitoring of the assist-air flow.

Response for Data Request 12.g

The manufacturer's and/or engineer design documentation for each flare is considered to be Confidential Business Information subject to protection under 40 C.F.R. Part 2, Subpart B. Further, engineering drawings, P&IDs, and flare operating procedures for the flares have been submitted as CEII to FERC and are subject to the procedures of 18 C.F.R. 388.113. With respect to this information classified as CEII, Calcasieu Pass refers EPA to the procedures of 18 C.F.R. 388.113.

Response for Data Request 12.h

The Warm Flare, Cold Flare, and Backup Warm/Cold Flare at Calcasieu Pass are air-assisted flares and, therefore, comply with exit velocity requirement specified in 40 CFR § 60.18(c)(5). 40 CFR § 60.18(c)(5) does not require cross sectional area of the flare tip.

The unobstructed cross-sectional area of the flare tip for LP Flare is 11.05 ft², and is derived as shown below:

Flare Tip Diameter = 3.75 ft

Cross Sectional Area = $\pi * D^2 / 4 = 3.14 * (3.75)^2 / 4 = 11.05 \text{ ft}^2$

13. Please provide the following information for each flare in searchable and editable electronic format (e.g., spreadsheet):
- The calculated net heating value of the vent gas, in British Thermal Units per standard cubic foot per 1-hour-block;
 - The cumulative volumetric flow rate of the vent gas, in standard cubic feet per 1-hour block;
 - The cumulative volumetric flow rate of assist steam, in standard cubic feet per 1-hour block;
 - The cumulative volumetric flow rate of assist air, in standard cubic feet per 1-hour block; and
 - The composition of the total vent gas to the flare per 1-hour block.
- NOTE 1: If any 1-hour block data for the subsections above are measured, but data is not available, provide an explanation for each time period missing data (e.g., flare not in service, instrumentation malfunction).
- NOTE 2: If any 1-hour block data for the subsections above are not measured, please provide estimated values and how the estimation is derived.

[Data Request as modified by e-mail from Sophia Ong, EPA, on December 13, 2024]

Response:

A response to this data request will be provided to EPA on or before January 6, 2025 for 2023 and 2024 data and on or before January 13, 2025 for 2022 data, in accordance with the December 17, 2024 e-mail from Justin Lannen, EPA.

14. For each of the Facility flares, describe how assist steam and/or assist air is monitored or adjusted by operations staff and how assist media is adjusted in response to a smoking flare.
- a. For each of the Facility flares, describe how the pilot flame is monitored and how the monitoring data is recorded.
 - i. Provide the monitoring data for the flare pilot flame.
 - ii. Provide records of each 15-minute block during which there was at least one minute that no pilot flame is present when waste gas was routed to a flare.
 - b. For each flare, provide copies of documents pertaining to operating procedures, monitoring procedures, flare performance testing, and any performance guarantees.
 - c. For each flare, state whether the flare is configured to receive gases/vapors from one or more PRDs, which is a safety device used to prevent pressures from exceeding the maximum allowable working pressure of the process equipment.

Response:

The assist air for the Warm Flare, Cold Flare, and Backup Warm/Cold Flare is auto managed by the Variable Frequency Drive (VFD) motor controller based on the flare gas flowrate and heating value to ensure smokeless operation. The operators do not adjust the flow rate manually because the VFD motor controller automatically adjusts the amount of assist air required. To address unusual circumstances, the manual override can be used to override the VFD motor controller. The LP Vent Flare is a non-assisted flare.

a.i The Cold, Warm, and Backup Warm/Cold Flares each have 3 pilots and 3 thermocouples to monitor the pilot flame to ensure the pilots are operational. All three flare stacks are collocated and have a common fault alarm that is triggered when any one of the pilots (out of 9) is not on. The LP Vent Flare is equipped with 4 pilots and 4 thermocouples and has its own fault alarm for pilots. When a pilot is not lit, an alarm is triggered in the main control room alerting operators to check the pilot. The pilot system for each flare is equipped with an ignition panel that ignites the pilots automatically if a pilot goes out. To the best of our knowledge, the pilots have been lit for each flare at all times any vent was routed to the flare.

Thus, there is a high degree of redundancy in the system to ensure that a pilot is always lit for each flare when in operation. These 4 levels of redundancy exist:

- 1) Each flare has more than 1 pilot
- 2) Each flare has more than 1 thermocouple monitoring the pilots
- 3) Each flare is designed with auto-ignition for a pilot to relight when the thermocouple indicates it has gone out.
- 4) An alarm alerts operations to check the pilot in the event the thermocouple detects that the pilot has gone out.

Note that the Title V permit does not require Calcasieu Pass to keep records of pilot monitoring.

Additionally, during each shift, an operator completes an operator round report (a redacted sample report is included as Attachment 14.a-1) that requires the operator to perform a visual observation to confirm the presence of pilots (i.e., answer "Yes/No" on the report) for each flare. Data from the operator round reports have been summarized in Attachment 14.a-2. Beginning in mid-2022, the operator rounds were completed and

stored in a database. Data showing the operator rounds for each shift during 2023 and 2024 are included (except for shifts on three days in 2023 [1/1/2023, 4/24/2023, and 12/20/2023] and two days in 2024 through [December 15, 2024 [1/16/2024 and 10/17/2024]. For 2022, data are available for 154 days. Again, as noted above, the Title V permit does not require the operator shift round records nor maintenance of such records.

The information provided in Attachments 14.a-1 and 14a.2 in response to this Data Request is considered to be confidential business information and Venture Global Calcasieu Pass, LLC requests protection of this information as CBI pursuant to 40 C.F.R. Part 2, Subpart B]. A justification for Confidentiality for this information is provided in a document labeled "CBI Justification for Attachments 14.a-1 and 14.a-2".

a.ii Calcasieu Pass does not have the records of each 15-minute block during which there was at least one minute that no pilot flame is present when waste gas was routed to a flare, nor is such a record is required by the Title V permit.

b. This request asks that Calcasieu Pass provide copies of documents pertaining to operating procedures, monitoring procedures, flare performance testing, and any performance guarantees for each flare. The standard operating procedure for each flare is considered to be Confidential Business Information subject to protection under 40 C.F.R. Part 2, Subpart B. Further, flare standard operating procedures for the flares have been submitted as CEII to FERC and are subject to the procedures of 18 C.F.R. 388.113. With respect to this information classified as CEII, Calcasieu Pass refers EPA to the procedures of 18 C.F.R. 388.113.

The monitoring procedures for the flares are described in the responses to Data Request Nos. 12.f, 13, 14.a.i., and 25. Performance testing for the flares will be conducted at the end of the commissioning period in accordance with any testing required by 40 C.F.R. 60.18. To the best of Calcasieu Pass's knowledge, there are no performance guarantees for the flares.

- c. The Warm Flare, Cold Flare, LP Vent Flare, and Backup Warm/Cold Flare are each configured to receive gases/vapors from one or more PRDs. This design ensures control to a degree of at least 98% for pressure relief events that would otherwise be emitted to the atmosphere.

14. **[Second]** Define/describe an upset event with respect to each flare. Explain the criteria for an upset scenario and how flow is diverted to each flare. What is the criteria for reporting an upset event to the state.

Response:

The term “upset” refers to an affirmative defense to a violation of certain air permit requirements or regulatory requirements. This term is defined under LAC 33:III.507.J., which provides as follows:

J. Upset Provisions

1. *For the purposes of this Subsection, an upset is any situation arising from sudden and reasonably unforeseeable events beyond the control of the owner or operator, including acts of God, which situation requires immediate corrective action to restore normal operation and that causes the source to exceed a technology-based emissions limitation under the permit due to unavoidable increases in emissions attributable to the situation. An upset shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.*
2. *An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based emissions limitations provided the owner or operator demonstrates through properly signed, contemporaneous operating logs or other relevant evidence that:*
 - a. *an upset occurred and that the owner or operator can identify the cause(s) of the upset;*
 - b. *the permitted facility was at the time being properly operated;*
 - c. *during the period of the upset the operator took all reasonable steps to minimize levels of emissions that exceeded the emissions standards and other requirements in the permit; and*
 - d. *the owner or operator notified the permitting authority in accordance with LAC 33:I.Chapter 39.*
3. *In any enforcement proceeding, the owner and operator seeking to establish the occurrence of an upset has the burden of proof.*
4. *The provisions of this Subsection are in addition to any emergency or upset provisions contained in any applicable requirement.*
5. *The provisions of this Subsection do not apply to acid rain emission limitations.*

In general, with regard to all equipment, Calcasieu Pass will protectively report events potentially meeting the criteria for an upset under LAC 33:III.507.J. within two days in accordance with LAC 33:III.535, General Condition N, when it determines to avail itself of this affirmative defense. In some cases, Calcasieu Pass may later determine that there was no regulatory deviation, and Calcasieu Pass will submit a courtesy letter to the LDEQ requesting withdrawal of the affirmative defense. In some cases, Calcasieu Pass may later determine after a root cause analysis that an event did not meet the criteria for an upset. In any case, if there was a potential permit deviation, Calcasieu Pass will report the event to LDEQ on the Title V Semi-Annual Monitoring Report, which reiterates the claim of upset defense if Calcasieu Pass still maintaining that claim.

The sentence "Explain the criteria for an upset scenario and how flow is diverted to each flare," in the second sentence of this item is ambiguous. As indicated in the Response to Data Request No. 5, above, vents from trips of the Acid Gas Thermal Oxidizers (AGTOs) are routed to the Warm Flare, vents from the trips of the BOG compressors are routed to the LP Flare, and vents from pressure relief devices may be routed to the Warm Flare, Cold Flare, Backup Warm/Cold Flare, or LP vent Flare. Routing such emissions in this manner achieves a high level of control of these vents (98% or greater) rather than routing such emissions to the atmosphere. The cause of the AGTO or BOG compressor trips or similar events may or may not meet the definition of "upset" in LAC 33:III.507.J., depending upon the circumstances of each event.

15. Define/describe a Startup, Shutdown, and Malfunction (SSM) event with respect to each the flare. What is the criteria for reporting an SSM event to the state?

Response:

There are no NSPS or NESHAP regulated vents directed to the flares; thus, there are no NSPS Subpart A or NESHAP Subpart A provisions for startup, shutdown or malfunction applicable to the flares. As used in the Title V Permit V4 and PSD Permit M4, refer to startup, shutdown or malfunction of equipment for which the flares are control devices. The terms startup, shutdown and malfunction are defined in LAC 33:III.111 as follows:

Malfunction—any sudden and unavoidable failure of air pollution control equipment or process equipment or of a process to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown shall not be considered malfunctions.

Shutdown—the cessations of operation of an affected facility for any purpose.

Start-Up—the setting in operation of an affected facility for any purpose.

Calcasieu Pass reports an SSM event generating vents to a flare to the state in the Semi-Annual Monitoring Report, as required by Specific Requirement No. 120, which requires compliance with LAC 33:III. 535, General Condition R.2 or 3, if the SSM event resulted in a deviation from the Title V permit limits. If the deviation resulted in emissions in excess of a Reportable Quantity, Calcasieu Pass would also report the deviation to the state pursuant to Specific Requirement 120, which requires compliance with LAC 33.III.535, General Condition R.1.

For ease of reference, LAC 33:III.535, General Condition R provides:

R. The permittee shall submit prompt reports of all permit deviations as specified below to the Office of Environmental Compliance. All such reports shall be certified by a *responsible official* as defined in LAC 33:III.502.A.

1. A written report shall be submitted within seven days of any emission in excess of permit requirements by an amount greater than the reportable quantity established for that pollutant in LAC 33.I.Chapter 39.
2. A written report shall be submitted for any emission in excess of permit emission limitations, regardless of the amount, where such emission occurs over a period of seven days or longer. The report shall be submitted no later than 14 days from the initial occurrence of the release event.
3. A written report shall be submitted semiannually to address all permit deviations not included in Paragraph 1 or 2 of Part 70 General Condition R. Unless required by an applicable reporting requirement, a written report is not required during periods in which there is no deviation. The semiannual deviation reports may be consolidated with the semiannual reports required by Part 70 General Condition K as long as the

report clearly indicates this, and all required information is included and clearly delineated in the consolidated report. For previously reported permit deviations (not reported in accordance with Paragraph 1 or 2 of Part 70 General Condition R), in lieu of attaching the individual deviation reports, the semiannual report may clearly reference the communications or correspondences constituting the prior report, including the date the prior report was submitted. The semiannual report shall be submitted by March 31, for the preceding period encompassing July through December, and by September 30, for the preceding period encompassing January through June.

4. Any written report submitted in advance of the time frames specified in Paragraphs 1-3 of Part 70 General Condition R, in accordance with an applicable regulation, may serve to meet the reporting requirements of this Condition provided the report is certified in accordance with 40 CFR 70.5(d) and contains all information relevant to the permit deviation. Reporting under this Condition does not relieve the permittee from the reporting requirements of any applicable regulation, including LAC 33.I.Chapter 39, LAC 33.III.Chapter 9, and LAC 33.III.5107.

16. Define/describe a planned Maintenance, Startup, and Shutdown (MSS) event with respect to each the flare. What is the criteria for reporting an MSS event to the state?

Response:

The terms startup and shutdown, with respect to equipment venting to the flares are discussed in the response to Data Request No. 15, above. The term “maintenance” is used in several different contexts throughout the Louisiana Air Pollution Control Regulations (LAC Title 33, Part III) but the term is not defined in those regulations. Rather, the term maintenance with regard to equipment, is used in its commonly understood sense to mean actions taken to keep in an existing state of repair or efficiency, or operability and/or to preserve the equipment from failure or decline.

Calcasieu Pass would report to the state a maintenance activity resulting in venting to a flare if the activity resulted in a deviation from the Title V permit emission limits, to the same extent that a startup or shutdown resulting in a deviation would be reported, as described in the response to Data Request No. 15, above.

17. What criteria does the facility use to determine that an emission release event (non-MSS) is reportable with respect to each flare? Are these criteria determined by the facility or the state? Provide written procedure to identify when the facility makes this determination and when they are required to report to the state.

Response:

This data request does not define what is meant by a “release event”. However, Calcasieu Pass believes that a “release event” with respect to a flare means an “unauthorized” discharge or release from a flare. LAC 33:III.927 provides:

§ 927. Notification Required (Unauthorized Discharges)

- A. The unauthorized discharge of any air pollutant into the atmosphere shall be reported in accordance with the provisions of LAC 33:I.Chapter 39, Notification Regulations and Procedures for Unauthorized Discharges. Written reports pursuant to LAC 33:I.3925 must be submitted to the department. Timely and appropriate follow-up reports should be submitted detailing methods and procedures to be used to prevent similar atmospheric releases.

Thus, Calcasieu Pass would report a release event from a flare in the Semi-Annual Monitoring Report required by Specific Requirement No. 120, which requires compliance with LAC 33:III.525, General Condition R.2 or 3, if the release event resulted in a deviation from the Title V permit limits because such excess emissions above permit limits would be unauthorized. If the deviation resulted in emissions above the permit limit in excess of a Reportable Quantity, Calcasieu Pass would also report the deviation to the state pursuant to Specific Requirement No. 120, which requires compliance with LAC 33:III.535, General Condition R.1 as well as Specific Requirement No. 127, which requires compliance with LAC 33:I.Ch. 39. The provisions of LAC 33:III.535, General Condition R, are provided in response to Data Request No. 15, above.

Finally, LAC 33:I.Ch. 39 requires the reporting of any **unauthorized** release that results in an “emergency condition.” LAC 33:I.3915. An “emergency condition” is defined in LAC 33:I.3905 as: “any condition which could reasonably be expected to endanger the health and safety of the public, cause significant adverse impact to the land, water or air environment, or cause severe damage to property.”

Venture Global Calcasieu Pass’s Environmental Incident Standard is used by the facility to assist in making a determination concerning when an unauthorized release from a flare is reportable and how it is reported. That document is provided as Attachment 17-1. This procedure contains Confidential Business Information and Venture Global Calcasieu Pass, LLC requests protection of this document as CBI pursuant to 40 C.F.R. Part 2, Subpart B. A document describing the basis for the confidentiality request is provided as “CBI Justification for Attachment 17-1.”

18. Provide, in an electronic spreadsheet format, records of release incidents associated with the flares, including excess emissions events routed to the flare (reported and non-reported). What additional data was used to determine that the release was reportable vs non-reportable? The spreadsheet should include:
- Date and time of the release event (start time, end time, & duration);
 - Which flare emission source was vented to the flare during the release;
 - Provide calculation used to determine quantity of the released emissions from the equipment and from the flare;
 - A summary of the each release event associated with the flares, and the identified root cause(s); and
 - Any corrective action or monitoring initiated in response to each release event.

Response:

There were no excess emissions (unauthorized emissions) from the flares in excess of the applicable limits in Specific Requirement 107 in 2022, 2023, or 2024 through December 5, 2024.

19. Provide, in an electronic spreadsheet format, copies of any citizen complaint logs associated with the flares. The log should include:
- Date and time of the complaint;
 - Date and time of the event that occurred associated with each complaint;
 - Location of the event about which the complaint was made;
 - Description of complaint; and
 - Any corrective action or monitoring activities initiated in response to the complaint.
- [Clarified by EPA via phone conference on December 12, 2024 to refer to any citizen complaints received directly from citizens or received by an agency that then requested Calcasieu Pass to respond]

Response for Data Request 19.a to 19.d:

Calcasieu Pass does not maintain any citizen complaint log in electronic spreadsheet format. Calcasieu Pass does respond to citizen complaints made directly to the facility and responds to any requests from appropriate regulatory authorities concerning flaring. Calcasieu Pass is providing a summary of known citizen complaints that have been received by the facility directly or through an agency request to Calcasieu Pass concerning a citizen complaint associated with the flares in Table 19-1.

Table 19-1. Citizen Complaint Logs – Calcasieu Pass

Date	Filed with?	Weblink for Relevant Information
3/19/2022 ^[1]	Louisiana Department of Environmental Quality (LDEQ) ^[1]	https://edms.deq.louisiana.gov/app/doc/view?doc=13246176
4/28/2022 ^[1]		https://edms.deq.louisiana.gov/app/doc/view?doc=13294515
5/6/2022 ^[1]		https://edms.deq.louisiana.gov/app/doc/view?doc=13331363
7/19/2022 ^[1]		https://edms.deq.louisiana.gov/app/doc/view?doc=13500477
2/12/2023 ^[1]		https://edms.deq.louisiana.gov/app/doc/view?doc=13907024
2/12/2023 ^[1]		https://edms.deq.louisiana.gov/app/doc/view?doc=13907026
5/27/2023 ^[1]		https://edms.deq.louisiana.gov/app/doc/view?doc=14156764
12/17/2023		https://edms.deq.louisiana.gov/app/doc/view?doc=14192922
6/22/2024		https://edms.deq.louisiana.gov/app/doc/view?doc=14406952
10/4/2024		https://edms.deq.louisiana.gov/app/doc/view?doc=14561668
3/22/2022	Calcasieu Pass	Same complaint filed with LDEQ on 3/19/2022 (https://edms.deq.louisiana.gov/app/doc/view?doc=13246176)
10/5/2024		Same complaint filed with LDEQ on 10/4/2024 (https://edms.deq.louisiana.gov/app/doc/view?doc=14561668)

^[1] Additional information was submitted to LDEQ as a part of air quality compliance inspection conducted by LDEQ, available at <https://edms.deq.louisiana.gov/app/doc/view?doc=13907002>.

^[2] Based on the review of the documents available in LDEQ's Electronic Document Management System (EDMS) as of December 17, 2024.

Response for Data Request 19.e:

None of these complaints or communications were made contemporaneously with the flaring noted in the communication. Most complaints or communications were made days later. Calcasieu Pass provided LDEQ with all of the requested information and documents to address these complaints. None of the events associated with complaints or citizen communications involved permit deviations. Calcasieu Pass proactively monitors its flare stacks for potential opacity concerns and has procedures in place to take actions to mitigate any opacity issues.

20. Provide monthly operating hours and 12-month rolling for each flare attributed to Startup/Shutdown (SU/SD).

Response:

Calcasieu Pass is not required to limit the hours of equipment startup or shutdown (SU/SD) emissions vented to the flares until the end of the commissioning period. The hour limitation for SU/SD at the flares is contained in Specific Requirement No. 60 of the Title V Permit V4, which is expressly identified as a Best Available Control Technology (BACT) limit. That Specific Requirement 60 states:

60. [LAC 33:III.509.J]. Flares Shall Comply with the Following BACT:

* * *

Limit the flares SU/SD to 60 hours per year.

Specific Requirement 107 of Title V-V4 provides:

For Flares (EQT 0013, EQT 0014, EQT 0015, and EQT 0016): ***During initial startup, commissioning, and/or shakedown activities, the BACT limits set forth in this permit and in PSD-LA-805 (M-3) shall not apply. Instead, during such periods, the maximum hourly (lb/hr) or annual emissions (tpy during any 12 consecutive month period) that include initial startup, commissioning, and/or shakedown activities shall not exceed the emission rates provided below.*** This specific requirement does not authorize any exceedance of an applicable federal or state standard. Emissions from flare operations during commissioning shall not be counted against permitted limits for the flares, but they shall be reported to the LDEQ in accordance with LAC 33:III.919.

(emphasis added; TPY and maximum lb/hr limits as a cap over all flares omitted).

Thus, the BACT limitation of limiting SU/SD for each flare to 60 hours per year does not apply during the commissioning period covered by SR 107. Instead, the cap over tons per year and the cap on maximum pounds per hour from all flares combined applies during this timeframe.

21. Provide monthly operating hours and 12-month rolling for the LP Flare attributed to Gasup/Cooldown (GU/CD).

Response:

Calcasieu Pass is not required to limit the hours of gasup or cooldown operations vented to the LP Vent Flare until the end of the commissioning period. The 240- hour limitation for GU/CD at the LP Vent Flare is contained in Specific Requirement No. 60 of the Title V Permit V4, which is expressly identified as a Best Available Control Technology (BACT) limit. That Specific Requirement 60 states in relevant part:

60. [LAC 33:III.509.J]. Flares Shall Comply with the Following BACT:

* * *

For SCN0015, limit GU/CD to 240 hours per year

Specific Requirement 107 of Title V-V4 provides that:

For Flares (EQT 0013, EQT 0014, EQT 0015, and EQT 0016): ***During initial startup, commissioning, and/or shakedown activities, the BACT limits set forth in this permit and in PSD-LA-805 (M-3) shall not apply. Instead, during such periods, the maximum hourly (lb/hr) or annual emissions (tpy during any 12 consecutive month period) that include initial startup, commissioning, and/or shakedown activities shall not exceed the emission rates provided below.*** This specific requirement does not authorize any exceedance of an applicable federal or state standard. Emissions from flare operations during commissioning shall not be counted against permitted limits for the flares, but they shall be reported to the LDEQ in accordance with LAC 33:III.919.

(emphasis added; TPY and maximum lb/hr limits as a cap over all flares omitted).

Thus, the BACT limitation of limiting GU/CD to 240 hours per year does not apply during the commissioning period covered by SR 107.

That said, Calcasieu Pas is voluntarily providing the monthly operating hours for the LP Vent Flare attributed to GU/CD operations in Table 21-1, below. Note that Calcasieu Pass is not required to maintain a 12-month rolling hours for GU/CD operations; rather, these hours of operation are on a calendar year basis.

**Table 21-1. LP Flare – Gas-up/Cooldown Hours of Operations
(January 2022 through November 2024)**

Year	Month Number	Gas-up/Cooldown Hours
2022	3	34.3
	4	0.3
	5	8.8
	6	20.0
	7	10.7
	9	17.0
	11	14.3
2023	1	22.6
	2	23.9
	4	6.2
	5	6.6
	10	17.2
	12	15.7
2024 (as of December 5, 2024)	8	11.5

22. Provide maximum actual hourly emissions (lb/hr) for each flare. Also, provide operational status of the flare at this time (e.g., start-up, commissioning, shakedown, and/or normal).

Response:

As indicated in the December 17, 2024 e-mail from Justin Lannen, EPA, Calcasieu Pass is permitted to provide to EPA a response to this data request on or before January 6, 2025 for 2023 and 2024 data and on or before January 13, 2025 for 2022 data.

23. Provide monthly emissions and 12-month rolling emissions (ton/yr) for each flare.

Response:

The monthly emissions for the Warm, Cold, and LP Vent Flares are shown in Tables 23-1 through 23-3, respectively. Calcasieu Pass is subject to 12-month rolling emission limits authorized under the Specific Requirement (SR) No. 107 of the current Title V Permit for all flares combined. Accordingly, the 12-month rolling emissions for all flares combined are shown in Table 23-4, which demonstrates compliance with the emissions authorized under SR No. 107. Note that the Backup Warm/Cold Flare emissions were embedded in Table 23-1 and Table 23-2 when the Backup Warm/Cold Flare acted as the Warm Flare or acted as the Cold Flare, respectively.

**Table 23-1. Warm Flare – Monthly Emissions, tons
(January 2022 through November 2024)**

Month	Year	NO _x	CO	PM	SO ₂	VOC	CO ₂ e
1	2022	1.79	4.10	0.05	0.17	0.55	3,076.60
2	2022	2.63	6.02	0.08	0.62	1.29	4,521.18
3	2022	0.63	1.45	0.02	0.94	0.27	1,086.57
4	2022	0.09	0.22	0.003	0.23	0.05	161.70
5	2022	1.83	4.20	0.05	0.10	0.61	3,153.63
6	2022	0.80	1.84	0.02	0.06	0.27	1,384.72
7	2022	0.96	2.19	0.03	0.34	0.32	1,645.63
8	2022	2.78	6.37	0.08	0.59	1.38	4,779.20
9	2022	3.11	7.14	0.09	0.13	0.97	5,362.32
10	2022	1.19	2.73	0.03	0.25	0.64	2,047.33
11	2022	4.00	9.18	0.12	0.15	1.29	6,891.99
12	2022	2.86	6.56	0.08	0.19	0.79	4,926.33
1	2023	0.45	1.03	0.01	0.03	8.13	772.81
2	2023	3.29	7.55	0.10	0.33	1.06	5,669.24
3	2023	5.56	12.75	0.16	1.22	4.13	9,572.66
4	2023	2.67	6.13	0.08	0.23	2.62	4,604.22
5	2023	0.67	1.55	0.02	0.001	0.25	1,160.56
6	2023	1.12	2.57	0.03	0.01	0.55	1,932.32
7	2023	3.12	7.16	0.09	0.07	1.35	5,376.27
8	2023	2.54	5.82	0.07	0.20	0.87	4,369.69
9	2023	0.97	2.22	0.03	0.32	0.37	1,667.12
10	2023	1.02	2.34	0.03	0.22	0.71	1,754.38
11	2023	2.43	5.56	0.07	0.31	2.78	4,176.49

Month	Year	NO _x	CO	PM	SO ₂	VOC	CO ₂ e
12	2023	2.73	6.26	0.08	0.52	1.03	4,696.05
1	2024	0.58	1.34	0.02	0.01	0.49	1,004.88
2	2024	0.70	1.59	0.02	0.03	0.48	1,197.10
3	2024	1.70	3.91	0.05	0.17	0.77	2,931.94
4	2024	3.09	7.09	0.09	0.08	1.29	5,319.15
5	2024	0.80	1.84	0.02	0.16	0.36	1,382.51
6	2024	2.17	4.97	0.06	0.43	0.85	3,729.79
7	2024	1.10	2.53	0.03	0.05	0.46	1,897.24
8	2024	1.59	3.64	0.05	0.01	0.53	2,734.57
9	2024	1.91	4.37	0.06	0.12	4.51	3,280.57
10	2024	0.38	0.88	0.01	0.01	0.30	660.63
11	2024	0.96	2.20	0.03	0.11	0.90	1,650.98

**Table 23-2. Cold Flare – Monthly Emissions, tons
(January 2022 through November 2024)**

Month	Year	NO _x	CO	PM	SO ₂	VOC	CO ₂ e
1	2022	0.06	0.13	0.00	0.18	0.61	98.56
2	2022	2.60	5.97	0.08	0.06	3.18	4,480.38
3	2022	2.49	5.71	0.08	0.07	4.38	4,289.22
4	2022	1.16	2.67	0.04	0.06	2.63	2,003.32
5	2022	0.55	1.27	0.02	0.07	3.90	950.51
6	2022	0.55	1.25	0.02	0.06	2.03	940.33
7	2022	0.67	1.53	0.02	0.07	2.35	1,148.93
8	2022	0.52	1.18	0.02	0.07	2.50	888.06
9	2022	0.42	0.96	0.02	0.06	2.75	717.17
10	2022	1.59	3.65	0.05	0.07	2.11	2,736.77
11	2022	2.30	5.28	0.07	0.06	2.51	3,964.79
12	2022	2.09	4.80	0.07	0.07	2.12	3,605.29
1	2023	10.34	23.72	0.30	0.00	0.41	17,801.99
2	2023	4.93	11.30	0.14	0.00	0.17	8,480.75
3	2023	17.39	39.90	0.51	0.00	0.63	29,948.78
4	2023	10.13	23.25	0.30	0.00	0.49	17,449.98
5	2023	21.31	48.90	0.63	0.00	0.90	36,701.43

Month	Year	NO _x	CO	PM	SO ₂	VOC	CO ₂ e
6	2023	3.14	7.21	0.09	0.00	0.16	5,410.13
7	2023	1.92	4.41	0.06	0.00	0.15	3,307.17
8	2023	4.97	11.39	0.15	0.00	0.32	8,550.18
9	2023	2.00	4.58	0.06	0.00	0.28	3,439.97
10	2023	0.26	0.60	0.01	0.00	0.05	452.13
11	2023	0.47	1.08	0.01	0.00	0.08	811.42
12	2023	0.29	0.66	0.01	0.00	0.05	497.24
1	2024	0.83	1.89	0.02	0.01	1.48	1,422.24
2	2024	1.48	3.39	0.04	0.02	3.12	2,542.22
3	2024	1.37	3.14	0.04	0.00	0.68	2,358.03
4	2024	1.31	3.01	0.04	0.00	0.64	2,257.79
5	2024	0.58	1.34	0.02	0.00	0.37	1,006.82
6	2024	0.98	2.26	0.03	0.00	0.31	1,692.84
7	2024	1.90	4.35	0.06	0.00	0.33	3,267.06
8	2024	1.23	2.83	0.04	0.00	0.18	2,121.41
9	2024	0.39	0.89	0.01	0.00	0.09	667.29
10	2024	0.84	1.92	0.02	0.00	0.14	1,441.68
11	2024	0.59	1.36	0.02	0.00	0.14	1,022.64

**Table 23-3. LP Vent Flare – Monthly Emissions, tons
(January 2022 through November 2024)**

Month	Year	NO _x	CO	PM	SO ₂	VOC	CO ₂ e
1	2022	1.40	8.07	0.36	0.07	0.00	6,053.89
2	2022	2.67	15.35	0.68	0.06	0.00	11,519.36
3	2022	5.04	29.02	1.29	0.07	0.00	21,780.82
4	2022	5.02	28.87	1.28	0.14	0.00	21,670.17
5	2022	1.01	5.79	0.26	0.07	0.00	4,348.99
6	2022	0.65	3.75	0.17	0.06	0.00	2,813.95
7	2022	0.48	2.78	0.12	0.07	0.00	2,087.86
8	2022	0.81	4.63	0.21	0.07	0.00	3,471.60
9	2022	0.53	3.05	0.14	0.06	0.00	2,291.70
10	2022	0.40	2.28	0.10	0.07	0.00	1,708.25
11	2022	0.26	1.49	0.07	0.06	0.00	1,117.08

Month	Year	NO _x	CO	PM	SO ₂	VOC	CO ₂ e
12	2022	0.79	4.55	0.20	0.07	0.00	3,417.69
1	2023	0.09	0.20	0.01	0.00	0.01	153.22
2	2023	0.45	1.03	0.05	0.00	0.01	774.73
3	2023	0.75	1.71	0.08	0.00	0.01	1,283.36
4	2023	1.14	2.62	0.12	0.00	0.02	1,962.91
5	2023	1.14	2.62	0.13	0.00	0.02	1,965.35
6	2023	4.24	9.73	0.46	0.00	0.03	7,300.38
7	2023	0.73	1.68	0.08	0.00	0.01	1,263.76
8	2023	0.91	2.09	0.10	0.00	0.02	1,571.37
9	2023	1.09	2.49	0.12	0.00	0.02	1,868.90
10	2023	0.55	1.25	0.06	0.00	0.01	941.86
11	2023	0.54	1.24	0.06	0.00	0.01	928.71
12	2023	0.58	1.33	0.06	0.00	0.01	998.99
1	2024	0.97	2.22	0.11	0.01	0.80	1,667.56
2	2024	0.80	1.83	0.09	0.01	0.73	1,371.05
3	2024	0.40	0.91	0.04	0.01	0.75	685.28
4	2024	0.41	0.93	0.04	0.01	0.69	698.53
5	2024	0.44	1.00	0.05	0.01	0.75	754.14
6	2024	0.26	0.59	0.03	0.00	0.41	440.05
7	2024	0.07	0.16	0.01	0.00	0.06	120.50
8	2024	0.08	0.18	0.01	0.00	0.06	134.06
9	2024	0.07	0.15	0.01	0.00	0.05	112.78
10	2024	0.06	0.14	0.01	0.00	0.05	107.97
11	2024	0.07	0.16	0.01	0.00	0.06	122.24

**Table 23-4. Cold, Warm, and LP Vent Flares – 12-Month Rolling Emissions, tons
(January 2022 through November 2024)**

Month	Year	NO _x	CO	PM	SO ₂	VOC	CO ₂
1	2022	3.30	12.41	0.42	0.68	1.17	9,316.51
2	2022	11.19	39.75	1.26	1.42	5.64	29,837.43
3	2022	19.36	75.93	2.65	2.49	10.29	56,994.03
4	2022	25.63	107.69	3.97	2.93	12.96	80,829.22

Month	Year	NO _x	CO	PM	SO ₂	VOC	CO ₂
5	2022	29.02	118.95	4.30	3.16	17.47	89,282.36
6	2022	31.03	125.80	4.52	3.35	19.77	94,421.35
7	2022	33.13	132.30	4.69	3.81	22.43	99,303.76
8	2022	37.23	144.48	5.00	4.53	26.32	108,442.62
9	2022	41.29	155.63	5.24	4.79	30.04	116,813.81
10	2022	44.47	164.28	5.43	5.17	32.79	123,306.15
11	2022	50.99	180.14	5.68	5.32	36.58	135,206.55
12	2022	56.73	196.04	6.04	5.51	39.49	147,141.85
1	2023	64.36	208.69	5.95	5.13	46.89	156,640.82
2	2023	65.13	201.24	5.40	4.72	43.66	151,044.62
3	2023	80.67	219.42	4.77	4.86	43.78	164,692.82
4	2023	88.34	219.66	3.94	4.66	44.23	164,874.74
5	2023	108.08	261.46	4.38	4.43	40.88	196,248.94
6	2023	114.58	274.12	4.76	4.25	39.32	205,752.78
7	2023	118.25	280.87	4.81	3.85	38.17	210,817.58
8	2023	122.56	288.00	4.83	3.33	35.48	216,169.96
9	2023	122.55	286.14	4.79	3.38	32.42	214,774.77
10	2023	121.21	281.69	4.70	3.23	30.46	211,430.80
11	2023	118.08	273.62	4.59	3.26	29.53	205,373.55
12	2023	115.93	265.95	4.39	3.45	27.71	199,616.54
1	2024	107.43	246.45	4.21	3.45	21.92	184,983.21
2	2024	101.73	233.38	4.07	3.17	25.02	175,168.87
3	2024	81.50	186.97	3.45	2.14	22.44	140,339.32
4	2024	72.36	166.00	3.12	2.00	21.93	124,597.69
5	2024	51.06	117.13	2.44	2.17	22.25	87,913.81
6	2024	45.96	105.43	1.97	2.59	23.09	79,133.66
7	2024	43.25	99.22	1.83	2.58	22.44	74,471.25
8	2024	37.73	86.56	1.60	2.39	22.01	64,970.05
9	2024	36.04	82.68	1.47	2.19	26.00	62,054.70
10	2024	35.49	81.43	1.42	1.98	25.72	61,116.60
11	2024	33.68	77.27	1.33	1.78	23.95	57,995.85
Permit Limit, tons (12-month Rolling)		183.76	837.72	20.14	30	139.63	369,790

24. Provide a list of employees who performs Method 9 visible emission observation readings at the facility and their training records.

Response:

Per the December 12, 2024 phone call between the EPA representatives (Sophia Ong and Justin Lannen) and Calcasieu Pass representatives (Rahul Pendse and Maureen Harbourt), it is our understanding that the EPA requested a list of current employees who perform Method 9 visible emission observations at Calcasieu Pass and their training records (i.e., copies of the previous Method 9 certification and the latest re-certification, as applicable). Table 24-1 provides the requested information. The copies of Method 9 certificates are provided in Attachment 24-1.

Table 24-1. List of Method 9 Certified Current Employees at Calcasieu Pass

Name	Latest Certification Date	Previous Certification Dates
Adam Sherman	8/29/24	2/29/24
Alex Credeur	8/8/24	--
Chace Olmsted	8/8/24	2/8/24
Chad Benoit	8/29/24	8/10/23; 9/2/22
Cody Wright	8/29/24	2/29/24
Colton Duplichan	8/8/24	8/10/23
Daniel Nunez	8/29/24	
Dwayne Haynie	8/29/24	2/8/24; 2/9/23; 2/10/22
Dex Murphy	8/29/24	2/29/24
Granville Handy	8/8/24	--
Jacob Latiolais	8/29/24	8/31/23; 2/9/23; 9/2/22
James Zeno	8/29/24	--
Jason Theriot	8/29/24	2/29/24; 9/2/22
Jessica Randall	8/8/24	--
John Boudreaux	8/29/24	2/29/24; 8/10/23; 3/2/23
Jordan Fawcett	8/8/24	--
Jose Campbell	8/29/24	2/29/24
Joseph Trosclair	8/29/24	8/31/23; 3/2/23
Lennex Lomeli	8/29/24	--
Mason Warr	8/8/24	2/8/24
Matthew Martin	8/29/24	--
Randall Credeur	8/8/24	8/10/23
Shantell McDaniel	8/8/24	2/29/24; 8/10/23; 3/2/23
Todd Jeffers	8/29/24	2/8/24; 2/9/23; 9/2/22
Travis Pradia	8/29/24	8/31/23

Name	Latest Certification Date	Previous Certification Dates
Tyler Conlee	8/8/24	8/10/23; 2/6/23
Tyler Fontenot	8/8/24	8/31/23; 3/2/23
Tyler Guillory	8/8/24	2/29/24
Wesley Collins	8/8/24	--

25. Provide information/records (visible emission observation readings, checks and opacity logs) for all flaring events/complaints and visible emission observation records for the flares for the following requested months: Feb 2023, May 2023, Dec 2023, June 2024, Sept 2024, Oct 2024, Nov 2024, and Dec 2024 (up to date Dec 6, 2024).

Response:

Pursuant to the December 17, 2024 e-mail from Justin Lannen, EPA, Calcasieu Pass is to provide to EPA a-response to this data request on or before January 6, 2025 for the requested 2023 and 2024 data.

Appendix 6
Venture Global
Start-Up Notification to LDEQ
3/27/2025

CALCASIEU PASS
TransCameron
PIPELINE

1001 19TH Street North
Suite 1500
Arlington, Virginia 22209

O 202.759.6740
F 703.243.1813
www.ventureglobalng.com

March 27, 2025

Office of Environmental Compliance
Enforcement Division
Louisiana Department of Environmental Quality
P.O. Box 4312
Baton Rouge, LA 70821-4312

2025 MAR 28 PM 4: 10

LED RECEIPT

RE: Notification of Actual Date of Startup — Combined Cycle Combustion Turbines 1 through 5 (EQT 0001, EQT 0002, EQT 0003, EQT 0004, and EQT 0005) and Aeroderivative Simple Cycle Combustion Turbine 1 (EQT 0051)
Venture Global Calcasieu Pass, LLC and TransCameron Pipeline, LLC
Cameron Parish, Louisiana
Title V Permit No. 0560-00987-V5 and PSD Permit No. PSD-LA-805(M-5)
Agency Interest No. 194203

Dear Sir or Madam,

Venture Global Calcasieu Pass, LLC (Calcasieu Pass) and TransCameron Pipeline, LLC, a wholly owned subsidiary of Venture Global LNG, Inc. (Venture Global LNG), operates the natural gas liquefaction, storage, and export facilities at a liquefied natural gas (LNG) terminal on the east side of the Calcasieu Ship Channel in Cameron Parish, Louisiana (Terminal Facilities). The Terminal Facilities are currently authorized under Title V Permit No. 0560-00987-V5 and Prevention of Significant Deterioration (PSD) Permit No. PSD-LA-805(M-5).

Calcasieu Pass was an area source of Hazardous Air Pollutants (HAPs) and was not subject to 40 C.F.R. 63 Subpart YYYYY (MACT YYYYY). With the issuance of the Title V Permit No. 0560-00987-V5 and PSD Permit No. PSD-LA-805(M-5), effective 3/17/2025, the equipment listed below at Calcasieu Pass became subject to the requirements of MACT YYYYY. The turbines subject to Subpart YYYYY have been in operation for several years; thus, we do not believe that a notice of actual startup is required. However, out of an abundance of caution, we are providing the dates of actual startup for turbines subject to Subpart YYYYY. Therefore, pursuant to the requirements of 40 C.F.R. 63.9(b)(4)(v), Calcasieu Pass herein submits this notification of the actual startup of Combined Cycle Combustion

VENTURE GLOBAL **LNG**

Turbines 1 through 5 (EQTs 0001 through 0005) and Aeroderivative Simple Cycle Combustion Turbine 1 (EQT 0051) within 15 days of the effective date for the Title V Operating Permit No. 0560-00987-V5 and PSD Permit No. PSD-LA-805(M-5). The actual dates of startup for the turbines are provided below, and the turbines have been operational since their corresponding startup dates.

- Combined Cycle Combustion Turbine 1, EQT 0001 – July 26, 2022
- Combined Cycle Combustion Turbine 2, EQT 0002 – August 16, 2022
- Combined Cycle Combustion Turbine 3, EQT 0003 – September 18, 2022
- Combined Cycle Combustion Turbine 4, EQT 0004 – March 21, 2022
- Combined Cycle Combustion Turbine 5, EQT 0005 – March 24, 2022
- Aeroderivative Simple Cycle Combustion Turbine 1, EQT 0051 – July 31, 2021

Should you have any questions or require additional information, please contact me at (337) 587-8062 or at avaughn@ventureglobalng.com. You may also contact Rahul Pendse at (832) 924-9902 or at rpendse@ventureglobalng.com.

Sincerely,



Andy Vaughan
Vice President, Operations
Venture Global Calcasieu Pass, LLC

cc: LDEQ Southwest Regional Office