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VIA ELECTRONIC MAIL

February 9, 2023

Mr. Bryan Lethcoe
Director, Southwest Region,
Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

Re: Venture Global Gator Express Pipeline, L.L.C / CPF 4-2023-024-WL

Dear Mr. Lethcoe:

Venture Global Gator Express Pipeline, LLC (“Venture Global”) responds herein to the Pipeline and Hazardous Materials Safety Administration’s (“PHMSA”) Warning Letter (“Letter”), dated January 11, 2023, in the above-referenced matter.

We respect the importance of PHMSA’s regulatory authority and we very much appreciate all of its efforts to ensure Venture Global adheres to all applicable requirements. Venture Global has carefully reviewed PHMSA’s Letter and our own records and seeks to confirm our adherence to both regulatory requirements and our own comprehensive standards, as set forth in detail below. For ease of reference, Venture Global has provided below the text from the Letter associated with each inspection finding and responded to each such finding in turn.

INSPECTION FINDINGS:

- 1. § 192.303 Compliance with specifications or standards.
Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.**

Venture Global failed to construct its pipeline system in accordance with written comprehensive specifications or standards consistent with Part 192. Specifically, Venture Global failed to follow its written procedure, *Construction Inspection Plan, GX-500600-CNS-PLN-GIE-00003* (Section 8.8.8.2) which specifies that manufacturer’s recommendation and procedures must be followed during surface preparation and application of the coating system. The Manufacturer’s specification, Protal 7200 Brush

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Application, contains coating system application requirements. Section 4.1 of this specification states that “[a]ll contaminants shall be removed from the steel surface to be coated. Oil and grease should be removed in accordance with SSPC PS-1 using non-oily solvent cleaner (i.e., xylene, MEK, ethanol, etc.).” And section 6.1 states that “[t]he finished coating shall be smooth and free of runs, sags, and or holidays.”

PHMSA, on August 25, 2022, observed coated field joints with embedded grit, rough edges, and weld porosity. After PHMSA identified these issues, the Operator performed an investigation to locate these joints and subsequently attempted repairs. Venture Global then submitted repair records on these identified joints. However, PHMSA was unable to verify the repairs as the pipe had already been buried. Venture Global offered to excavate a field joint to inspect the coating, but PHMSA was uncertain that this would confirm repair of the previously observed defective field joints. Photographs presented by Venture Global seem to show that additional epoxy was applied to the defective field joint coating, but this was not consistent with the repair procedure specified by the manufacturer. This procedure required the defective coating be removed by abrasive blasting and recoated according to the manufacturer’s specifications (Denso Protal 7200 Brush Application Specification, Section 7.0).

Therefore, Venture Global failed to construct its Gator Express pipeline project in accordance with comprehensive written specifications or standards that are consistent with the requirements of Part 192 in accordance with § 192.303.

VENTURE GLOBAL RESPONSE:

During the inspection on August 25, and during conversations with PHMSA personnel thereafter, Venture Global clarified that the referenced field joints were still in the process of being coated, were located on temporary pipe supports, and were partially pre-jeeped and repaired. One joint in particular experienced airborne media that had compromised the coating due to high winds experienced during the curing process. None of the referenced field joints were in the process of being lowered into the ditch or being backfilled at the time of the PHMSA inspection.

Section 6.1 of the Manufacturer’s Specification, Protal 7200 Brush Application, entitled “Inspection/Testing for Backfilling,” indicates that “[t]he finished coating shall be smooth and free of runs, sags, and/or holidays.” This section requires that the finished coating attributes be compliant prior to backfilling. Venture Global confirms that any joint areas that were unsatisfactory were repaired in accordance with section 7.0, and section 4.0, where applicable, of the Manufacturer’s specification prior to backfilling.

Venture Global confirms that as to the weld joint referenced in the Letter, the coating was indeed removed in accordance with the manufacturer’s specifications to ensure that no contaminants were present after the surface preparations were complete. The Daily Inspection Coating Reports provided to PHMSA on September 30, 2022 documented the coating repairs to the referenced joints and described the surface preparations that were performed prior to applying the new coating. The Final Jeep Report Jeeping Information records document that final jeeping activities were completed prior to lowering the joints into the ditch. Additionally, as indicated on the Daily

Inspection Backfilling Reports, additional jeeeping activities were completed prior to backfilling to address coating damage that could have occurred after lowering in activities, thereby ensuring effective corrosion control.

By taking these actions before backfilling, Venture Global believes that it constructed its Gator Express pipeline project in accordance with comprehensive written specifications or standards that are consistent with the requirements of 49 C.F.R. § 192.303.

For further information about the single joint with weld porosity concerns, please refer to Venture Global's response to finding four below, clarifying the additional steps taken to ensure that there were no concerns with weld integrity.

INSPECTION FINDINGS:

2. § 192.303 Compliance with specifications or standards.

Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.

Venture Global failed to construct its Gator Express pipeline in accordance with its written specifications as required by § 192.303. Specifically, Venture Global failed to maintain a weld rejection rate of three percent or less. Section 7.0 of Venture Global's NDE Procedures and Personnel Certification requirements states that the "[c]ontractor shall maintain a reject rate of three percent or less. Owner has the right to require contractor to submit a mitigation plan to address the conformance of the required weld rejection rate provided the rejection rate is greater than the 3%."

Venture Global's construction records indicated that the weld rejection rate for the project was 8.96%. At the time of inspection (August 25, 2022), Venture Global had not yet investigated the cause and required the contractor to submit a mitigation plan.

On September 30, 2022, Venture Global provided the results of an investigation into the high weld rejection rate. The investigation failed to identify a specific cause. However, a technical welding representative employed by the contractor recommended that welders "pay attention to the basic welding techniques of preheat, grinding, buffing, and protecting the weld from inclement weather." Since the investigation, the weld rejection on the project has trended downward but is still greater than 3%.

Therefore, Venture Global failed to construct its Gator Express pipeline project in accordance with comprehensive written specifications or standards that are consistent with the requirements of Part 192 in accordance with § 192.303.

VENTURE GLOBAL RESPONSE:

The Venture Global Specifications for non-destructive examination (“NDE”) require it to be performed in accordance with 49 C.F.R. Part 192 and the 20th edition of API 1104, neither of which establish an acceptable or maximum weld rejection rate. Venture Global and its construction contractor have agreed to maintain a reject rate of three percent (3%) or less. Additionally, as PHMSA notes, Venture Global has the right to require its contractor to submit a mitigation plan if the weld rejection rate is greater than three percent (3%). Please note that under Venture Global’s contractual agreement with the construction contractor for NDE, Venture Global assesses the weld rejection rate based on the percentage of welds rejected for the total project.

Welding activities commenced on Gator Express in June 2022. Between June 2022 and August 2022, 336 welds (or 9% of the anticipated weld count for the project) were completed. During this time, Venture Global coordinated with its construction contractor to implement corrective actions to reduce the weld rejection rate. Venture Global communicated this activity to PHMSA in its September 22, 2022 response to the exit summary request for information. After implementing these corrective actions, the project weld rejection rate has decreased each month and cumulatively for the project. For example, the weld rejection rate for the month of October 2022 was 2.11%, while the weld rejection rate for November 2022 was 1.46%. The cumulative project weld rejection rate between June 2022 and October 2022 was 2.75%, and the cumulative weld rejection rate between June 2022 and November 2022 was 2.35%.

Based on the foregoing, Venture Global believes that it has constructed its Gator Express pipeline project in accordance with comprehensive written specifications or standards that are consistent with the requirements of 49 C.F.R. § 192.303.

INSPECTION FINDINGS:

3. **§ 192.303 Compliance with specifications or standards.**
Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.

Venture Global failed to construct its pipeline system in accordance with written comprehensive specifications or standards consistent with Part 192. Specifically, Venture Global failed to follow its written procedure, *Welding and Fabrication Specification*, VG-000000-PPL-SPC-VGL-00009 (Section 12.2.1) which states that the “NDT Contractor shall assign consecutive weld numbers each day for the given project to determine numbering sequence, and prior to welding on Company facilities.”

During PHMSA’s inspection on August 24, 2022, PHMSA determined that Venture Global failed to assign weld numbers prior to welding, as required by its procedures. Since weld identification numbers are used to associate records for non-destructive examination inspections, visual inspections of welds, weld repair records, and inspections of field joint coatings, improper weld numbering impedes PHMSA’s ability to review these records. Assigning weld numbers after welding is difficult and reduces the reliability of the records.

After PHMSA identified this issue, Venture Global committed to modifying its practices to be consistent with its procedures.

VENTURE GLOBAL RESPONSE:

49 C.F.R. § 192.243(d) requires the operator to select at random a certain percentage of each day's field butt welds for nondestructive testing. Venture Global asserts that it is going above and beyond this requirement by nondestructively testing all welds on the project, not just a certain percentage of welds selected by random as described in §192.243(d).

Through this work practice, final as-built records will provide for all welds on the project a nondestructive test record correlating the milepost, engineering station, or geographic feature by weld number. A weld log is maintained which identifies all welds on the project by weld number and includes, but is not limited to, weld repairs due to rejections and the disposition of the rejection. The final as-built documentation, in conjunction with the weld log, exceeds the regulatory requirements in § 192.243(f).

As stipulated in Venture Global Specifications, each weld must be 100% visually inspected and accepted with records indicated on the Daily Inspection Weld Records. Based on feedback from the PHMSA inspector, Venture Global modified its work practice to add pipe joint numbers to its Daily Inspection Weld Reports. The pipe joint numbers can be correlated to final as-built documentation produced at the end of the project, thereby allowing daily Inspection Weld Reports to be traced to a specific geographical location. Venture Global believes that this modified work practice that it implemented exceeds the requirements prescribed by 49 C.F.R. Part 192.

Venture Global has also updated its *Welding and Fabrication Specification* in Section 12.2.1 to more closely align with industry standards for pipeline construction (i.e., specifically authorizing the NDE contractor to assign weld identification numbers at the time a weld is inspected, not on each day and not prior to welding). Venture Global believes that this modified process, as well as the process described herein, also meets or exceeds the requirements established by 49 C.F.R. Part 192.

INSPECTION FINDINGS:

4. **§ 192.241 Inspection and test of welds.**
 - (a) **Visual inspection of welding must be conducted by an individual qualified by appropriate training and experience to ensure that:**
 - (1) **The welding is performed in accordance with the welding procedure; and**
 - (2) **The weld is acceptable under paragraph (c) of this section.**

§ 192.303 Compliance with specifications or standards.

Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.

Venture Global's welding inspectors failed to perform visual inspections of production welds as required by its procedures and § 192.241. Venture Global's written specification, *Welding and Fabrication Specification, VG-000000-PPL-SPC-VGL-00009* (Section 8.3) states:

A qualified welding inspector shall examine and accept welds in conformance with the applicable code. All API 1104 code welds shall be 100% visually inspected by the welding inspector prior to NDE and meet the following visual inspection requirements:

8.4. Girth arc welds shall be examined for:

8.4.1. Cracks: Any weld with a crack shall be removed.

8.4.2. Grinder marks: Excessive grinder marks (as judged by the welding inspector) are not allowed.

8.4.3. External undercut exceeding API 1104 acceptance criteria and pinholes in the final cap shall be repaired by grinding and recapping the affected portion of the weld. Spot welding to cover a pinhole in the final cap is not permitted. Welding a stripper bead outside the weld cap to cover undercut is not permitted.

8.4.4. Weld defects greater than 25% of the weld length shall not be repaired and must be cut out.

8.4.5. Weld metal: At no point shall crown surface be below outside surface of the pipe nor shall it be raised above parent metal by more than the height qualified in the WPS. Two beads shall not be started in the same location. Face of the completed weld shall be approximately 1/8-inch wider than and centered along the original groove.

During PHMSA's inspection of the Gator Express pipeline construction project on August 25, 2022, Venture Global failed to perform visual inspections and the acceptability of the visually inspected welds were not performed according to Section 9 of API 1104. Several weld joints with defects were observed as accepted by the welding inspectors. Venture Global's construction records confirmed that it accepted weld joints with defects. After PHMSA identified these issues, the Operator performed an investigation to locate these joints and subsequently attempted repairs. Venture Global then submitted repair records on these identified joints. However, these records did not indicate any weld repairs. Photographs presented by Venture Global seem to show that additional epoxy was applied to the defective weld joints. Additional PHMSA inspections did not observe other weld joints with similar issues.

Therefore, Venture Global failed to perform visual inspections in accordance with its procedures and § 192.241.

VENTURE GLOBAL RESPONSE:

Venture Global discussed the welds in question with PHMSA staff during the inspection conducted

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the week of August 25, 2022 and the October 5, 2022 inspection thereafter. Venture Global provided PHMSA Daily Inspection Welding Reports that indicated the subject welds were 100% visually accepted by a qualified Welding Inspector in accordance with Venture Global Specifications and Section 9 of the 20th edition of API 1104. Based on their acceptance by a qualified Welding Inspector, the referenced welds were not visually defective.

Welds that are not visually accepted by qualified Welding Inspectors are repaired in accordance with Venture Global Specifications and the 20th edition of API 1104. Venture Global utilizes an industry leading non-destructive testing (“NDT”) contractor with qualified personnel (ANST Level II certified with support from an ANST Level III, if required) examining the welds. Any welds that do not conform with the non-destructive examination requirements, as prescribed by Venture Global Specifications and the 20th edition of API 1104, are rejected and repaired in accordance with these requirements.

The weld porosity referenced in the first finding above was 100% visually accepted by a qualified Welding Inspector, as indicated on the Daily Welding Inspection Report, then non-destructively tested and found acceptable by an ANST Level II technician, in accordance with the 20th edition of API 1104, as provided on the Digital Radiographic Testing Report. After PHMSA questioned the integrity of a portion of the weld (2400mm-2700mm), Venture Global contracted an independent third-party NDE specialist with an ANST Level III qualification to review the radiographic film of the area. This specialist confirmed the weld area was acceptable based on the 20th edition of API 1104. The independent third party NDE specialist noted that the picture of the area in question “[did] not represent the X-ray image, but rather a thick, uneven coating applied to the weld”. Venture Global provided PHMSA with the independent third-party’s NDE evaluation results on September 14, 2022. Please refer to the response to the first finding for further details regarding the coating repairs to this weld.

In sum, Venture Global confirms that visual examinations were completed on 100% of welds by a qualified Welding Inspector in accordance with Venture Global Specifications, and Section 9 of the 20th edition of API 1104. The NDE results examined by a ANST Level II technician confirmed that the welds were acceptable as stipulated in the 20th edition of API 1104. Venture Global also received additional confirmation from an ANST Level III specialist that the weld was acceptable; therefore, no further welding repairs were necessary.

INSPECTION FINDINGS:

5. **§ 192.461 External corrosion control: Protective coating**
 - (a)
 - (c) **Each external protective coating must be inspected just prior to lowering the pipe into the ditch and backfilling, and any damage detrimental to effective corrosion control must be repaired.**

§ 192.303 Compliance with specifications or standards.

Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.

Venture Global failed to backfill the pipe immediately after the protective coating was inspected as required by its procedures and § 192.461(c). Venture Global's written specification, *Pipeline Construction Specification, VG-000000-CNS-SPC-VGL-00003* (Section 22) states that "[a]ll pipe coating must be inspected just prior to lowering the pipe into the ditch or pulling the pipe into the hole and any damage discovered must be repaired." Section 27.2 states that "[b]ackfilling shall start as soon as possible after the lowering-in operation has been completed to prevent floating of the pipe in case water enters the trench, and to prevent damage to the coating by movement of the pipe caused by temperature changes. Extreme care shall be taken so as not to damage the pipe or pipe coating."

On October 5, 2022, a PHMSA inspection of construction records indicated that pipe was backfilled three (3) days after the external coating was inspected. The pipeline span from Station 616+00 to Station 616+80 was jeeped on September 12, 2022, inspected on September 14, lowered-in on September 15, and backfilled on September 17. Failure to backfill the pipe immediately after inspecting and lowering could cause damage to pipe coating.

Therefore, Venture Global failed to backfill the pipe immediately after the protective coating was inspected as required by its procedures and § 192.461(c).

VENTURE GLOBAL RESPONSE:

The pipe segment locations in question are two parallel 42" lines ("TGP" and "TETCO") installed within a 50 foot right of way with roughly 4.5 feet spacing between the pipes. Due to the close proximity of the parallel pipelines, the construction contractor could not dig one pipeline ditch, backfill, then repeat the same process again for the second pipeline because there was not enough space to ensure safe excavation slopes in accordance with OSHA trenching and excavation safety requirements.

Section 22.4.7 of Venture Global's Pipeline Construction Specification (VG-000000-CNS-SPC-VGL-00003) states: "pipe jeeping is performed prior to lowering the pipe into the ditch. If holidays are identified during jeeping activities, coating repairs are performed until acceptable external protective coating is achieved."

Final jeeping activities were complete and identified holidays repaired, in accordance with Section 7.0 of the coating Manufacturer's Specification, prior to lowering each pipe into the ditch, as indicated on Final Jeep Report Jeeping Information records and the Lowering In Daily Reports.

Section 27 of the Venture Global Pipeline Construction Specification states "[b]ackfilling of the pipeline in the ditch shall be performed as soon as practical following lowering-in, but in no case

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before Company has ascertained that the pipe has proper fit in the ditch, has the required depth, bedding, and the coating has not been damaged and the line has been surveyed in.”

Prior to backfilling, visual inspections were conducted on the dual lines to verify there was not any coating damage that could inhibit effective corrosion control. The dual lines were jeeped prior to backfilling, as described on the Daily Inspection Backfilling Reports. Conducting pipe jeeping prior to lowering pipes into the ditch and prior to backfilling is consistent with 49 C.F.R. § 192.461(c) and in accordance with 49 C.F.R. § 192.303 and Venture Global’s procedures.

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Thank you again for PHMSA’s support on our project and commitment to ensuring our compliance. Should you have any questions about Venture Global’s responses above or require any additional information, please do not hesitate to contact me at 202-759-6738.

Sincerely,

**VENTURE GLOBAL GATOR EXPRESS
PIPELINE, LLC**

By: *Fory Musser*
Name: Fory L. Musser
Title: Senior Vice President

cc: Greg Coppola
Cassie Harrison
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