

NOTICE OF AMENDMENT

ELECTRONIC MAIL - RETURN RECEIPT REQUESTED

November 12, 2020

John Filiatrault
Senior Vice President - CO2 Pipeline and Supply
Denbury Onshore, LLC
5320 Legacy Drive
Plano, Texas 75024

CPF 4-2020-009-NOA

Dear Mr. Filiatrault:

From May 11, 2020 through July 29, 2020, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected your *Operation and Maintenance Procedure (O&M)* manual.

On the basis of the inspection, PHMSA has identified the apparent inadequacies within Denbury Onshore, LLC's plans or procedures, as described below:

1. **§ 195.402 - Procedural manual for operations, maintenance, and emergencies.**

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

§ 195.110 - External loads.

(a) Anticipated external loads (e.g.), earthquakes, vibration, thermal expansion, and contraction must be provided for in designing a pipeline system. In providing for expansion and flexibility, Section 419 of ASME/ANSI B31.4 must be followed.

Denbury's *O&M* manual does not reference Section 419 of ASME/ANSI B31.4 concerning external loads as referenced in § 195.110. Denbury's *O&M* manual should be amended to reference Section 419 of AMSE/ANSI B31.4 with respect to anticipated external loads in providing for expansion and flexibility.

2. **§ 195.402 - Procedural manual for operations, maintenance, and emergencies.**

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

§ 195.207 - Transportation of pipe.

(a) ...

(c) Truck. In a pipeline to be operated at a hoop stress of 20 percent or more of SMYS, an operator may not use pipe having an outer diameter to wall thickness ratio of 70 to 1, or more, that is transported by truck unless the transportation is performed in accordance with API RP 5LT (incorporated by reference, *see* § 195.3).

Denbury's procedure for transportation of pipe(s) is inadequate. Denbury's *Engineering Standards Manual* does not provide for the use of API RP 5LT when transporting pipe(s) by truck. Denbury provides references for API RP 5L1 and 5LW to transport pipe(s) by rail and marine vessels or barge, but does not provide a reference for API RP 5LT when transporting pipe(s) by truck. Denbury must amend its procedure to include API RP 5LT standards when transporting pipe(s) by truck.

3. **§ 195.402 - Procedural manual for operations, maintenance, and emergencies.**

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence,

and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

§ 195.262 - Pumping equipment.

(a) Adequate ventilation must be provided in pump station buildings to prevent the accumulation of hazardous vapors. Warning devices must be installed to warn of the presence of hazardous vapors in the pumping station building.

Denbury's written procedures regarding adequate ventilation within pump stations buildings are inadequate. Section 17. *Heating, Ventilation, and Air Conditioning (HVAC) Requirements of Denbury's Engineering Design Manual (Section E0200)* is insufficient per § 195.262(a) due to the lack of reference to ventilation provided in pump station buildings to prevent the accumulation of hazardous vapors, and the lack of reference to warning devices for hazardous environments when entering enclosed pump station buildings. This section only references conformance to UBC, IBC, and ASHRAE, in addition to climate control. Denbury must amend its procedures regarding adequate ventilation within pump stations buildings to address the requirements of § 195.262(a).

4. **§ 195.402 - Procedural manual for operations, maintenance, and emergencies.**

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

(1)

(7) Starting up and shutting down any part of the pipeline system in a manner designed to assure operation within the limits prescribed by § 195.406, consider the hazardous liquid or carbon dioxide in transportation, variations in altitude along the pipeline, and pressure monitoring and control devices.

Denbury's written procedures *O&M 0502, High-Pressure Plant Start-Up Procedures* of Denbury's *O&M Manual*, Sections 2. *Scope* and 3. *Core Information and Requirements* are inadequate per § 195.402(c)(7) as they do not provide written shutdown procedures, but only start-up procedure steps. The procedures must be amended to ensure operation within

limits prescribed by § 195.406 during startup and shutdown and should address the following:

1. Inspecting all over-pressure protection devices required for the start-up of a new pipeline, including the testing of set pressures and the checking of capacities, if necessary;
 2. Establishing communication with field personnel and control personnel; and
 3. Controlling the flow rate when pressurizing the pipeline and monitoring pressures until normal operation is established.
5. **§ 195.402 - Procedural manual for operations, maintenance, and emergencies.**

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

§ 195.403 - Emergency response training.

(a)

(c) Each operator shall require and verify that its supervisors maintain a thorough knowledge of that portion of the emergency response procedures established under § 195.402 for which they are responsible to ensure compliance.

Denbury's *O&M, Emergency Response*, Section 4. *Training* procedures are inadequate as they do not provide a process to require and verify that supervisors are trained and maintain a thorough knowledge of the emergency response procedures for which they are responsible. Denbury must amend its procedures to provide a process for supervisors to be trained and maintain the necessary knowledge of the emergency response procedures established under § 195.402.

6. **§ 195.402 - Procedural manual for operations, maintenance, and emergencies.**

(a) ...

(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations:

(1)....

(3) Operating, maintaining, and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

§ 195.573 - What must I do to monitor external corrosion control?

(a) ...

(e) Corrective action. You must correct any identified deficiency in corrosion control as required by § 195.401(b). However, if the deficiency involves a pipeline in an integrity management program under § 195.452, you must correct the deficiency as required by § 195.452(h).

Denbury's *O&M* manual, *External Corrosion Control for Buried or Submerged Pipeline*, Section 3.4.7 *Remedial Action* is inadequate because it does not contain procedures for responding to deficiencies found by the required monitoring per § 195.573(e).

Denbury must amend its procedures to include a process and time frame for responding to deficiencies identified during external corrosion control monitoring. The amended procedures should include a minimum of: (1) a time frame for evaluating data and determining a course of action; and (2) a time frame for any new installation to be operational and cathodic protection to be in the adequate range. These time frames should consider the population density and environmental concerns of the area that could potentially be affected by a release of a hazardous liquid.

Response to this Notice

This Notice is provided pursuant to 49 U.S.C. § 60108(a) and 49 C.F.R. § 190.206. Enclosed as part of this Notice is a document entitled Response Options for Pipeline Operators in Compliance Proceedings. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document, you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b).

Following the receipt of this Notice, you have 30 days to submit written comments, revised procedures, or a request for a hearing under §190.211. If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue an Order Directing Amendment. If your plans or procedures are found inadequate as alleged in this Notice, you may be ordered to amend your plans or procedures to correct the inadequacies (49 C.F.R. § 190.206). If you are not contesting this Notice, we propose that you submit your amended procedures to my office within 60 days of receipt of this Notice. This period may be extended by written request for good cause. Once the inadequacies identified herein have been addressed in your amended procedures, this enforcement action will be closed. It is requested (not mandated) that Denbury Onshore, LLC maintain documentation of the safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Mary McDaniel, Director, Southwest, Pipeline and Hazardous Materials Safety Administration. In correspondence concerning this matter, please refer to **CPF 4-2020-009-NOA**, and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Mary L. McDaniel, P.E.
Director, Southwest Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

cc: Chad Docekal, Regulatory Compliance Specialist, Denbury Resources, Inc.,
chad.docekal@denbury.com