

April 28, 2023

VIA ELECTRONIC MAIL TO: david.sheppard@denbury.com

David Sheppard
Executive Vice President and Chief Operating Officer
Denbury Onshore, LLC
5320 Legacy Drive
Plano, Texas 75024

Re: CPF No. 4-2022-041-NOPV

Dear Mr. Sheppard:

Enclosed please find the Final Order issued in the above-referenced case. It makes findings of violation, specifies actions that need to be taken by Denbury Onshore, LLC, to comply with the pipeline safety regulations, and withdraws one alleged violation and its associated compliance order. When the terms of the compliance order have been completed, as determined by the Director, Southwest Region, this enforcement action will be closed. Service of the Final Order by e-mail is effective upon the date of transmission and acknowledgement of receipt as provided under 49 C.F.R. § 190.5.

Thank you for your cooperation in this matter.

Sincerely,

Alan K. Mayberry
Associate Administrator
for Pipeline Safety

Enclosure

cc: Mr. Bryan Lethcoe, Director, Southwest Region, Office of Pipeline Safety, PHMSA
Mr. Randy Robichaux, Vice President, Environmental, Health, and Safety, Debury
Onshore, LLC, randy.robichaux@denbury.com

Mr. George C. Hopkins, Outside Counsel for Denbury Onshore, LLC, Vinson &
Elkins, LLP, ghopkins@velaw.com

CONFIRMATION OF RECEIPT REQUESTED

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, D.C. 20590**

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In the Matter of)	
)	
Denbury Onshore, LLC,)	CPF No. 4-2022-041-NOPV
)	
Respondent.)	
)	

FINAL ORDER

From February 23 to August 19, 2021, pursuant to 49 U.S.C. § 60117, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), inspected Denbury Onshore, LLC’s (Denbury or Respondent) carbon dioxide transmission pipeline system in Louisiana and Mississippi. Since 2001, Denbury has acquired or constructed approximately 750 miles of carbon dioxide pipelines in the Gulf Coast.¹ As of December 31, 2021, Respondent owns approximately 925 miles of carbon dioxide pipelines in Louisiana, Mississippi, and Texas.²

As a result of the inspection, the Director, Southwest Region, OPS (Director), issued to Respondent, by letter dated August 5, 2022, a Notice of Probable Violation and Proposed Compliance Order (Notice). In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that Denbury had violated 49 C.F.R. § 195.452 and proposed ordering Respondent to take certain measures to correct the alleged violations.

Denbury responded to the Notice by letter dated September 9, 2022 (Response). Respondent contested two of the three allegations, offered additional information in response to the Notice, and requested an extension of time to complete the proposed compliance order (PCO) for Item 2. Respondent did not request a hearing and therefore has waived its right to one.

FINDINGS OF VIOLATION

The Notice alleged that Respondent violated 49 C.F.R. Part 195.452, as follows:

¹ *Pipeline Network*, DENBURY, available at <https://www.denbury.com/operations/pipeline-network/> (last accessed April 26, 2023).

² *Id.*

Item 1: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(1), which states:

§ 195.452 Pipeline integrity management in high consequence areas.

(a)...

(i) *What preventative and mitigative measures must an operator take to protect the high consequence area?*

(1) *General requirements.* An operator must take measures to prevent and mitigate the consequences of a pipeline failure that could affect a high consequence area. These measures include conducting a risk analysis of the pipeline segment to identify additional actions to enhance public safety or environmental protection. Such actions may include, but are not limited to, implementing damage prevention best practices, better monitoring of cathodic protection where corrosion is a concern, establishing shorter inspection intervals, installing EFRDs on the pipeline segment, modifying the systems that monitor pressure and detect leaks, providing additional training to personnel on response procedures, conducting drills with local emergency responders and adopting other management controls.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(1) by failing to conduct a risk analysis in 2019 for its Brandon Pump Station, Lockhart Meter Station, Jordan Meter Station, Industrial Park Lateral Meter Station, and South Gluckstadt Extension Temporary Pig Receiver to identify preventive and mitigative measures (P&MM) that may enhance public safety or environmental protection. In addition, the Notice alleged that when Respondent eventually performed a P&MM evaluation on November 2, 2021, the evaluation was inadequate because it failed to identify additional P&MM.

In its Response, Denbury did not dispute that it failed to complete the risk analysis as required in 2019. Denbury contested, however, the allegation that it failed to identify additional P&MM during the November 2, 2021 risk assessment. Respondent explained that it considered an additional P&MM, namely, “installation of remote mounted cameras” to address the risk of “outside force related failure,” but ultimately determined that the P&MM already in place were sufficient.

Under § 195.452(f)(6), identification of P&MM to protect the high consequence area (HCA) is an element of an integrity management program (IMP). An operator must continually change this program to reflect operating experience, conclusions drawn from results of the integrity assessments, other maintenance and surveillance data, and evaluation of consequences of a failure on the HCA.³ Pursuant to § 195.452(j)(3), an operator must continually evaluate and assess pipeline integrity at intervals of five years, not to exceed 68 months. Denbury’s own procedures establish a five-year interval for P&MM risk analysis.⁴ Denbury complied with

³ 49 C.F.R. § 195.452(f).

⁴ See Violation Report Exhibit-B1, *Integrity Management Program, IMP0100, 3.10 Integrity Management for Facilities Other than Line Pipe, 3.10.1 Process* (Revised: 2021-02-15).

neither. An operator must follow their manual of written procedures.⁵ Prior to the November 2, 2021 facility risk assessment, Denbury last performed a risk analysis in 2014. In its Response, Denbury did not dispute that it did not complete a risk analysis in 2019, within the requisite intervals.

After considering all of the evidence, I find that Respondent violated 49 C.F.R. § 195.452(a)(i)(1) by failing to conduct a risk analysis in 2019 for its Brandon Pump Station, Lockhart Meter Station, Jordan Meter Station, Industrial Park Lateral Meter Station, and South Gluckstadt Extension Temporary Pig Receiver to identify P&MM that may enhance public safety or environmental protection.

Item 2: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(4), which states:

§ 195.452 Pipeline integrity management in high consequence areas.

(a)....

(i) *What preventive and mitigative measures must an operator take to protect the high consequence area?*

(1)....

(4) *Emergency Flow Restricting Devices (EFRD)*. If an operator determines that an EFRD is needed on a pipeline segment to protect a high consequence area in the event of a hazardous liquid pipeline release, an operator must install the EFRD. In making this determination, an operator must, at least, consider the following factors – the swiftness of leak detection and pipeline shutdown capabilities, the type of commodity carried, the rate of potential leakage, the volume that can be released, topography or pipeline profile, the potential for ignition, proximity to power sources, location of nearest response personnel, specific terrain between the pipeline segment and the high consequence area, and benefits expected by reducing the spill size.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(i)(4) by failing to perform a risk assessment to determine whether emergency flow restricting devices (EFRDs) are needed on its pipeline segments to protect HCAs in the event of a release. Specifically, the Notice alleged that Respondent failed to perform an EFRD risk assessment using all of the factors in § 195.452(i)(4) in accordance with its written IMP. During the inspection, Denbury failed to provide an EFRD risk assessment for its system to evaluate the potential impact on HCAs.

In its Response, Respondent argued that that §195.452(i) is not applicable to operators of carbon dioxide pipelines. Denbury further disputed that it failed to follow the requirements of its IMP to consider the need for an EFRD analysis. Respondent asserted that it followed its IMP because its subject matter expert (SME) reviewed information from work done on the Denbury Green Pipeline, which is a sister company’s pipeline, and determined that no further evaluation of EFRDs was needed.

Per § 195.452(a), pipeline integrity management applies to each carbon dioxide pipeline that

⁵ 49 C.F.R. § 195.452(b)(5).

could affect an HCA. Under § 195.452(i)(1), operators must conduct a risk analysis of the pipeline segment to identify additional actions to enhance public safety or environmental protection and mitigate the consequences of a pipeline failure that could affect a HCA. However, § 195.452(i)(4) specifically applies only to hazardous liquid pipelines, stating: “[i]f an operator determines that an EFRD is needed on a pipeline segment to protect a high consequence area in the event of a *hazardous liquid pipeline* release, an operator must install the EFRD” (emphasis added). Carbon dioxide is not a hazardous liquid, as that term is defined under § 195.2. Therefore, because the pipeline at issue transports carbon dioxide, § 195.452(i)(4) is not applicable. Accordingly, after considering all of the evidence, I hereby withdraw Notice Item 2.

Item 3: The Notice alleged that Respondent violated 49 C.F.R. § 195.452(k), which states:

§ 195.452 Pipeline integrity management in high consequence areas.

(a)...

(k) *What methods to measure program effectiveness must be used?* An operator’s program must include methods to measure whether the program is effective in assessing and evaluating the integrity of each pipeline segment and in protecting the high consequence areas. See Appendix C of this part for guidance on methods that can be used to evaluate a program’s effectiveness.

The Notice alleged that Respondent violated 49 C.F.R. § 195.452(k) by failing to measure the effectiveness of its IMP in assessing and evaluating the integrity of each pipeline segment and in protecting HCAs. Specifically, during the inspection, Denbury stated that its last IMP performance measure was conducted in 2014 and that it failed to conduct the annual IMP performance measure from 2015 to 2020.

In its Response, Respondent did not dispute this allegation.

Accordingly, after considering all of the evidence, I find that Denbury violated 49 C.F.R. § 195.452(k) by failing to measure the effectiveness of its IMP in assessing and evaluating the integrity of each pipeline segment and in protecting HCAs.

These findings of violation will be considered prior offenses in any subsequent enforcement action taken against Respondent.

COMPLIANCE ORDER

The Notice proposed a compliance order with respect to Items 1, 2, and 3 in the Notice for violations of 49 C.F.R. §§ 195.452(i)(1), 195.452(i)(4), and 195.452(k), respectively. Under 49 U.S.C. § 60118(a), each person who engages in the transportation of hazardous liquids or who owns or operates a pipeline facility is required to comply with the applicable safety standards established under chapter 601.

With regard to the violation of 49 C.F.R. § 195.452(i)(1) (Item 1), Respondent did not dispute

that it failed to complete a risk analysis in 2019. Rather, it argued that the risk analysis it performed on November 2, 2021, identified an additional P&MM for the next five years. Following a review of the documentation from this risk analysis, the Southwest Region, in a Region Recommendation dated December 15, 2022, recommended finding that the terms of the PCO for Item 1 have been satisfied. Accordingly, I hereby find that the terms of the PCO have been completed.

With regard to the violation of 49 C.F.R. § 195.452(i)(4) (Item 2), Respondent, without admitting any violation of its IMP, agreed to complete the terms of the PCO for Item 2. Denbury requested an extension of time to complete the work set out in the PCO to 180 days. As discussed above, I have withdrawn Notice Item 2. Consequently, I hereby withdraw the compliance order associated with this Item. I acknowledge Denbury's commitment to completing the terms of the PCO for Item 2 within the time period Denbury has proposed.

With regard to the violation of § 195.452(k) (Item 3), Denbury did not contest the allegation of violation or the PCO terms.

For the above reasons, the Compliance Order is modified as set forth below.

Pursuant to the authority of 49 U.S.C. § 60118(b) and 49 C.F.R. § 190.217, Respondent is ordered to take the following actions to ensure compliance with the pipeline safety regulations applicable to its operations:

With respect to the violation of § 195.452(k) (**Item 3**), Respondent must measure whether its IMP is effective in assessing and evaluating the integrity of each pipeline segment and in protecting HCAs. Denbury must submit the IMP effectiveness review to the Director, Southwest Region, PHMSA, within 60 days of the issuance of the Final Order.

The Director may grant an extension of time to comply with any of the required items upon a written request timely submitted by the Respondent and demonstrating good cause for an extension.

PHMSA requests that Respondent maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to the Director. It is requested that these costs be reported in two categories: (1) total cost associated with preparation/revision of plans, procedures, studies and analyses; and (2) total cost associated with replacements, additions and other changes to pipeline infrastructure.

Failure to comply with this Order may result in the administrative assessment of civil penalties not to exceed \$200,000, as adjusted for inflation (*see* 49 C.F.R. § 190.223), for each violation for each day the violation continues or in referral to the Attorney General for appropriate relief in a district court of the United States.

Under 49 C.F.R. § 190.243, Respondent may submit a Petition for Reconsideration of this Final Order to the Associate Administrator, Office of Pipeline Safety, PHMSA, 1200 New Jersey Avenue, SE, East Building, 2nd Floor, Washington, DC 20590, with a copy sent to the Office of Chief Counsel, PHMSA, at the same address. The written petition must be received no later than 20 days after receipt of the Final Order by Respondent. Any petition submitted must contain a statement of the issue(s) and meet all other requirements of 49 C.F.R. § 190.243. The terms of the order, including corrective action, remain in effect unless the Associate Administrator, upon request, grants a stay.

The terms and conditions of this Final Order are effective upon service in accordance with 49 C.F.R. § 190.5.

April 28, 2023

Alan K. Mayberry
Associate Administrator
for Pipeline Safety

Date Issued