



U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Avenue SE
Washington DC 20590

JUL 12 2019

Mr. Todd Denton
President
Phillips 66 Pipeline, LLC
3010 Briarpark Drive, PWC-7109
Houston, Texas 77042

Re: CPF No. 4-2016-5002

Dear Mr. Denton:

Enclosed please find the Final Order issued in the above-referenced case. It makes a finding of violation and specifies actions that need to be taken by Phillips 66 Pipeline, LLC to comply with the pipeline safety regulations. 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 certified mail is effective upon the date of mailing 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: Ms. Mary McDaniel, Director, Southwest Region, Office of Pipeline Safety, PHMSA
Mr. Van P. Williams, Esq., Senior Counsel, Phillips 66 Pipeline, LLC, HST-13-N1348,
1075 W. Sam Houston Parkway N., Suite 200, Houston, Texas 77042

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

² On March 21, 2016, Phillips 66 requested a 30-day time extension to respond to the Notice, which was granted by the Director on March 28, 2016.

FINDING OF VIOLATION

The Notice alleged that Respondent violated 49 C.F.R. Part 195, as follows:

Item 1: The Notice alleged that Respondent violated 49 C.F.R. § 195.202, which states:

§ 195.202 Compliance with specifications or standards.

Each pipeline system must be constructed in accordance with comprehensive written specifications or standards that are consistent with the requirements of this part.

The Notice alleged that Respondent violated 49 C.F.R. § 195.202 by installing multiple pipes through a single bore hole when using horizontal directional drilling (HDD) as part of its Mont Belvieu to Sweeney, Texas highly volatile liquid (HVL) pipeline construction project without having comprehensive written specifications for constructing the pipeline in this manner. The Notice referenced §§ 195.246(a) and 195.563(a) and specifically alleged that the written construction plans and procedures used by Phillips 66 to construct the HVL pipeline at the San Bernard River crossing were not comprehensive enough to be consistent with the requirements of Part 195 because they did not account for the additional stresses and possibility of damage to the pipe or the impact on cathodic protection associated with pulling more than one pipe through a HDD bore.

In its Response and at the hearing, Phillips 66 argued that the written specifications and procedures it had in place at the time the multiple pipeline HDD installation at the San Bernard River crossing was conducted in December 2014 fully complied with the regulations. Respondent provided a copy of a written HDD standard P66PL-TIP-4010 which provided guidance on HDD drilling in support of pipeline installation.³ Respondent also stated that its contractors, Hard Rock Directional Drilling and Troy Construction, were experienced with bundled HDD installations and had processes and procedures for deviations from a single pipe HDD installation.⁴ In connection with the hearing, Phillips 66 also provided e-mail correspondence with its contractors, a three-page drilling operations plan from Hard Rock Directional Drilling, a two-page description of the ream and swab pass cutter diameters and sequence, a Troy Construction daily progress report, a geotechnical exploration data report, a pulling load summary, bore bumper system instructions, and various other field notes and photographs.⁵ Phillips 66 argued that collectively these materials constituted comprehensive procedures for installing multiple pipes through a single bore hole when using HDD. Respondent also argued that no undue stress, damage, or other specific deficiency in the construction had been shown that would warrant the issuance of a Notice of Probable Violation

³ Response at 2.

⁴ *Id.*

⁵ Phillips 66 pre-hearing submission, Exhibits D–T. Phillips 66 is correct that there is no requirement that all procedures used by an operator be contained in a single manual.

and Proposed Compliance Order by OPS, and that the issue of adequate cathodic protection was not a valid concern due to its use of rubber bumpers during the pipe installation.⁶

With respect to Respondent's argument that its HDD standard P66PL-TIP-4010 in place at the time of construction, together with the various items in its exhibits, constituted comprehensive procedures for installing multiple pipes through a single bore hole when using HDD, during the hearing and in the region recommendation, OPS explained that the standard HDD process is performed by pulling a single pipe through a horizontally directionally drilled bore hole with the pipe being concentric to the bore hole. Respondent's HDD standard P66PL-TIP-4010 is the acknowledged procedure for this operation. According to OPS, however, "the existing Phillips 66 procedure did not address the complexities or integrity issues introduced by installing multiple pipes through the same bore."⁷ Specifically, OPS stated that the existing procedure did not address the additional risks arising from a multiple pipe installation such as damage to the pipe, damage to the pipe coating, the introduction of excessive stresses on a single pipe or pipes depending on how the pipes are pulled, and the lack of adequate soil compaction around each pipe to ensure adequate structural support among other things.⁸ OPS is correct that Respondent's HDD standard P66PL-TIP-4010 did not cover bundled HDD installations.

In the materials submitted by Phillips 66 in connection with the hearing, the closest thing to written specifications for undertaking a bundled HDD installation at the San Bernard River crossing is the Nov. 19, 2014 Specification Deviation Request for Troy Construction which states, in its entirety:

P66 Integrity Group was contacted on 11/19/14 to grant approval to install the HDD across the San Bernard River by bundling the two (2) 10" & 16". P66 Integrity Group granted approval to perform the two bundles. Troy will place spacers on individual pipelines at 10 feet intervals to protect the pipe. After the pilot hole has been drilled, the following will take place, the first reamer pass will be a 30" hole, then ream to 36", followed by a 42"/48" reamer. The driller plans to clean the hole with a 36"/40" swab pass before pulling the pipe. The pull heads will be connected to a 2" plate pinned back by a swivel.

The construction of a pipeline at a river crossing is a complex undertaking. Establishing comprehensive construction plans in advance is critical because the pipeline operator is responsible for overseeing its contractors and ensuring that detailed plans are followed and quality control is maintained. River crossings are particularly sensitive areas for hazardous liquid pipeline construction because once the pipe is in place accessing it for inspection or repair

⁶ Response at 2-3.

⁷ Region recommendation at 4.

⁸ *Id.*

if a failure occurs can involve significant environmental and safety consequences.⁹ The planning process must be sufficient to ensure appropriate measures are in place to address known risks such as pipe stress and damage and coating damage when more than one pipe will be installed in a single bore. These risks are not present in a standard single pipe installation. Therefore, Respondent's HDD standard P66PL-TIP-4010 was inadequate for the San Bernard River crossing, even as supplemented by the extremely austere one-paragraph Specification Deviation Request which did not even include procedures for the use of bumper rings, ensuring that the bumper rings could not be damaged or torn off during the pull, or how to validate that adequate spacing of 12-inches under Part 195 or electrical isolation required by the regulations would be achieved.¹⁰ Notably, Phillips 66 subsequently did establish a written procedure in April of 2015 for bundled HDD installations in an Appendix A to HDD standard P66PL-TIP-4010 entitled "Bundled Drills," but it was not in place during the relevant period of December 2014 when the construction took place.¹¹

As for Respondent's argument that no undue stress or pipe damage during the installation had been shown by the post-installation integrity assessment, while this information is potentially relevant to the proposed compliance order and whether it may be partially satisfied, it is not dispositive on the question of whether there was an absence of comprehensive written specifications for constructing the pipeline by installing multiple pipes through a single bore hole when using HDD.¹²

Accordingly, after considering all of the evidence and the legal issues presented, I find that Respondent violated 49 C.F.R. § 195.202 by installing multiple pipes through a single bore hole when using HDD as part of its Mont Belvieu to Sweeney, Texas HVL pipeline construction project without having comprehensive written specifications for constructing the pipeline in this manner.

This finding of violation will be considered a prior offense in any subsequent enforcement action taken against Respondent.

COMPLIANCE ORDER

The Notice proposed a compliance order with respect to Item 1 in the Notice for violation of 49

⁹ The purpose of the pipeline safety regulations is to provide adequate protection against risks to life, property, and the environment. 49 U.S.C. § 60102.

¹⁰ See 49 C.F.R. §§ 195.250 and 195.575.

¹¹ Phillips 66 pre-hearing submission, Exhibit C.

¹² In its February 23, 2018 Reply to the Region Recommendation, Respondent took issue with various representations made by OPS in the December 28, 2017 recommendation including the accuracy of Figures 1 and 2 and OPS' assertions that there was a complete absence of certain procedures involving foreign crossings and protective current, that decisions were made without proper approval, and that Phillips 66 made decisions "on the fly." I disregarded these statements by OPS and my findings in this Order are not based on them in any way whatsoever.

C.F.R. § 195.202. 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.

In its Response, Phillips 66 noted that it had revised its written procedures for HDD to cover bundled drills in April 2015. Respondent stated that it has performed an engineering critical assessment (ECA) on the two 10-inch segments installed through a single HDD under the San Bernard River and included a report of an inspection conducted by T.D. Williamson dated June 19, 2015.¹³ The Director has indicated that the documentation submitted by Respondent thus far does not satisfy the requirements of the proposed compliance order.¹⁴ Accordingly, the compliance terms are included in this order.

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:

1. With respect to the violation of § 195.202 (**Item 1**), Respondent must develop, submit and execute a plan to evaluate the integrity of the multiple pipes that were installed in this manner. The plan must include a means to evaluate each pipe for metal loss; dents; dents with metal loss; cracks; the external coating; adequate structural support of the pipes by the surrounding soil; whether the entire circumference of each of the pipes is in contact with the soil so that each pipe is protected from external corrosion by cathodic protection current; whether excessive secondary stresses were introduced by the installation method; whether the minimum required spacing requirements have been met; and whether the rubber spacers installed on the pipes shield the pipes from cathodic protection current. Prior to commencing implementation of the plan, Phillips 66 must submit the proposed plan to the Director for approval.
2. Respondent must submit the plan described in Item 1 of this Compliance Order to the Director for approval within thirty (30) days of the date of receipt of this Final Order. Upon the Director's approval of the plan, Phillips 66 must complete all evaluations within ninety (90) days and submit the evaluation results, along with all supporting documents and data, to the Director. If the evaluations indicate that the installation introduced integrity threats in any of the pipes, Respondent must develop a plan to mitigate the integrity threats and submit the mitigation plan to the Director for approval with thirty (30) days of completing the evaluations. Upon approval of the mitigation plan by the Director, Phillips 66 must submit documentation demonstrating completion of all items in the mitigation plan to the Director within one-hundred twenty (120) days of commencing the implementation of the approved mitigation plan.

The Director may grant an extension of time to comply with any of the required items upon a

¹³ Phillips 66 post-hearing submission, Exhibit W.

¹⁴ Region recommendation at 6-7.

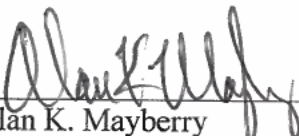
written request timely submitted by the Respondent and demonstrating good cause for an extension.

It is requested (not mandated) 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 (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, no later than 20 days after receipt of service of this 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.



Alan K. Mayberry
Associate Administrator
for Pipeline Safety

JUL 12 2019

Date Issued