U.S. Department
of Transportation

Pipeline and Hazardous Materials
Safety Administration

12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

WARNING LETTER

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

January 21, 2019

Mr. John S. Watson
Chairman and Chief Executive Officer
Chevron Products Company
6001 Bollinger Canyon Road
San Ramon, CA 94583

CPF 5-2019-5003W

Dear Mr. Watson:

From July 25 through 29, 2016, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code (U.S.C.), inspected your Willbridge Facilities in Portland, Oregon. As part of that inspection we reviewed your operation and maintenance procedures, and supporting implementation records and documentation. I sincerely apologize for our late transmittal of these findings to Chevron, but still hope that by detailing our observations and regulatory findings that you can further improve public safety.

Based on our inspection findings, PHMSA determined you may have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (CFR). The deficiencies noted and probable violations were:

1. **§ 194.121 Response plan review and update procedures.**
   (a) Each operator shall update its response plan to address new or different operating conditions or information. In addition, each operator shall review its response plan in full at least every 5 years from the date of the last submission or the last approval as follows…
   (b) If a new or different operating condition or information would substantially affect the implementation of a response plan, the operator must immediately modify

its response plan to address such a change and, within 30 days of making such a change, submit the change to PHMSA. Examples of changes in operating conditions that would cause a significant change to an operator's response plan are:...

The operator did not update its response plan to address new or different operating conditions or information. The most recent version of the operator's facility response plan was submitted to PHMSA in February 2016 and, prior to that submission, in 2014, 2010, 2008, and 2004 (Submissions). Each of those Submissions, or the letters received by the operator in response to the Submissions, generally describes new or different operating conditions or information reflected or to be included in the updated response plans. However, the operator produced no records that demonstrate that the operator reviewed (and updated where necessary) its response plan to address the new or different operating conditions or information described in the Submissions.

The operator provided p. 43 of the table of contents of the facility response plan entitled "Record of Changes." The Record of Changes simply details two changes made on August 2, 2016 and fails to fill out any of the columns entitled "Section/Amended/Page Number," "Department Notified Yes/No," and "Initials of Person Making Changes." Furthermore, the Record of Changes did not capture the historic changes reflected in the response plan Submissions to PHMSA or the resulting correspondence. The current Record of Changes document is not sufficient to show that the operator reviewed and updated the facility response plan as required in § 194.121(a).

2. **§ 195.264 Impoundment, protection against entry, normal/emergency venting or pressure/vacuum relief for aboveground breakout tanks.**

...

(b) After October 2, 2000, compliance with paragraph (a) of this section requires the following for the aboveground breakout tanks specified:

(1) For tanks built to API Spec 12F, API Std 620, and others (such as API Std 650 (or its predecessor Standard 12C)), the installation of impoundment must be in accordance with the following sections of NFPA-30 (incorporated by reference, see § 195.3);

(i) Impoundment around a breakout tank must be installed in accordance with section 22.11.2; and...

Regarding its 2009 Chevron Willbridge Terminal Expansion Project, the operator did not demonstrate that the impoundment areas were installed according to § 195.264 or NFPA-30 Section 22.11.2.1. The operator provided the August 5, 2016 "Chevron Willbridge Terminal NFPA-30 Impoundment Evaluation" (Evaluation) to demonstrate compliance with NFPA-30 Section 22.11.2 for its 2009 Chevron Willbridge Terminal Expansion Project, which installed two large gasoline/diesel storage tanks and corresponding impoundments. However, several deficiencies exist as to demonstrating compliance using this sole document. Compliance with NFPA-30 Section 22.11.2.1 requires "[a] slope of not less than 1 percent away from the tank shall be provided for at least 50 ft (15 m) or to the dike base, whichever is less." The operator stated in the Evaluation that the slope was "[c]onfirmed visually and through observations that rainwater freely drains away from tanks." Visual confirmation for a quantifiable requirement is not sufficient to satisfy either § 195.264 or NFPA-30 Section 22.11.2.1. Chevron should have used a quantifiable measure of the slope to demonstrate compliance.

3. § 195.432 Inspection of in-service breakout tanks.

...

(b) Each operator must inspect the physical integrity of in-service atmospheric and low-pressure steel above-ground breakout tanks according to API Std 653 (except section 6.4.3, Alternative Internal Inspection Interval) (incorporated by reference, see § 195.3). However, if structural conditions prevent access to the tank bottom, its integrity may be assessed according to a plan included in the operations and maintenance manual under § 195.402(c)(3). The risk-based internal inspection procedures in API Std 653, section 6.4.3 cannot be used to determine the internal inspection interval.

The operator did not inspect the physical integrity of in-service atmospheric and low-pressure steel above-ground breakout tanks according to API Standard 653, as required by § 195.432. API Standard 653 (Third Edition, December 2001) requires that "[a]ll tanks shall be given a visual external inspection by an authorized inspector" in Section 6.3.2.1. PHMSA inspectors in the field observed the following on Tank 47: a petroleum sheen high on the side of the riveted tank, a gouge a few feet above the ground on the side of the tank, and a coating failure hole that appeared to contain corrosion pits. None of these deficiencies were noted in the May 21, 2013 Tank #47 API 653 External Inspection Report. These observed deficiencies are inconsistent with adequate regular inspection and maintenance of the facilities.

4. § 195.434 Signs.

Each operator must maintain signs visible to the public around each pumping station and breakout tank area. Each sign must contain the name of the operator and a telephone number (including area code) where the operator can be reached at all times.

The operator did not maintain signs visible to the public around each pumping station and breakout tank area that included name of the operator and a telephone number where the operator can be reached at all times. Inspectors observed inadequate signage on both the terminal area and the impoundment area of the Willbridge Facilities. On the terminal side of the street (the gated side), inspectors observed only one sign sufficient to meet requirements on hundreds of feet of available space of fencing, which included several entrances and exits from the facilities. On the tank farm/impoundment wall side of the street, only one sign was observed containing emergency information and that sign did not contain the name of the operator. On that same side, hundreds of feet of unmarked impoundment walls, including numerous vehicle and personnel access points, were lacking proper signage. The main "Chevron" sign on the tank farm side of the property was buried in shrubs and was not visible to the general public. Signage at the operator's Chevron Willbridge Facilities did not fully comply with the visibility requirements of § 195.434.

5. **§ 195.577 What must I do to alleviate interference currents?**
(a) For pipelines exposed to stray currents, you must have a program to identify, test for, and minimize the detrimental effects of such currents.

The operator did not demonstrate that the Chevron Willbridge Facilities were tested and determined not to be exposed to stray currents nor did they produce documentation of an interference current program. The "Chevron Distribution Terminals O&M Manual," Procedure 602.3 Interference Currents, does not meet § 195.577(a) because no testing for interference currents is required by the procedure. The operator stated that no interference current testing has ever been performed in the Willbridge Facilities despite the presence of numerous potential sources of interference current such as other pipelines and terminals in the area, as well as adjacent tank farms. The operator's personnel stated that they understood that identification, testing, and minimizing the effects of stray currents, in accordance with § 195.577, applies to the breakout tanks and other facilities at the Willbridge Facilities. The operator made no effort to determine whether stray currents existed at the facilities and concluded, with no data or analysis, that no stray current existed. Without testing for stray current, the operator's assumption that no stray current exists is unfounded and violates § 195.577(a).

6. **§ 195.579 What must I do to mitigate internal corrosion?**
...
(c) Removing pipe. Whenever you remove pipe from a pipeline, you must inspect the internal surface of the pipe for evidence of corrosion. If you find internal corrosion requiring corrective action under § 195.585, you must investigate circumferentially and longitudinally beyond the removed pipe (by visual examination, indirect method, or both) to determine whether additional corrosion requiring remedial action exists in the vicinity of the removed pipe.

The operator did not inspect the internal surface of the pipe whenever pipe was removed from a pipeline at the Willbridge Facilities. The operator verified that removed pipe was never inspected for internal corrosion as required for compliance with § 195.579(c). Further, there are no records documenting internal corrosion inspections on removed pipe sections.

7. **§ 195.581 Which pipelines must I protect against atmospheric corrosion and what coating material may I use?**
(a) You must clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, except pipelines under paragraph (c) of this section.

(b) Coating material must be suitable for the prevention of atmospheric corrosion.
(c) Except portions of pipelines in offshore splash zones or soil-to-air interfaces, you need not protect against atmospheric corrosion any pipeline for which you demonstrate by test, investigation, or experience appropriate to the environment of the pipeline that corrosion will:
(1) Only be a light surface oxide; or
(2) Not affect the safe operation of the pipeline before the next scheduled inspection.

Chevron Products Company (Chevron) did not protect its pipelines at the Willbridge facilities from atmospheric corrosion as required by 49 C.F.R. § 195.581(a). Specifically, Chevron did not clean and coat each pipeline or portion of pipeline that is exposed to the atmosphere, or by demonstrating by test, investigation, or experience appropriate to the environment of the pipelines, that corrosion will only be a light surface oxide, or that the corrosion will not affect the safe operation of the pipeline before the next scheduled inspection. Visual observation of Chevron's Willbridge facilities by PHMSA inspectors showed numerous areas of regulated pipeline, pipeline P-110 in particular, without coating and with severe atmospheric corrosion. Visual evidence revealed that the current conditions are inconsistent with a light surface oxide, as the corrosion appears severe and to have existed for several years.

Chevron asserts that even if the corroded infrastructure is not simply a light surface oxide, the corrosion does not affect the safe operation of pipeline P-110. In response to PHMSA inspectors' questions about observable pipeline corrosion, Chevron submitted a document entitled "§ 195.581(c) Discussion" (Discussion). The Discussion addresses two Chevron-selected locations on a single pipe, P-110, comparing Ultrasonic (UT) inspections from 2005 and 2011 to demonstrate compliance with § 195.581(c)(2). (Pictures of P-110 and schematics of the ultrasound location are attached as exhibits to the Violation Report.) The Discussion shows little to no metal loss in the two locations addressed, and the wall thickness is shown to have slightly increased in certain o'clock positions at the locations on the two Chevron-selected points on pipeline P-110.

In response to PHMSA inspectors' questions, Chevron provided a report after the inspection from its own expert, Mr. Phil Meyers, entitiled the January 18, 2011 "Willbridge Cathodic Protection Justification." In that report, Mr. Meyers opined that a volume expansion occurs during the corrosion process which may show a false increase in wall thickness. Further, Chevron stated that the data from pipe P-110, as listed in the Discussion, illustrates the worst case scenario of pipeline corrosion on P-110. The "worst case scenario" refers to the most progressed corrosion on the pipe. The data from points P01-01 and P01-02 on P-110, the two Chevron-selected locations addressed in the Discussion, produced average corrosion rates of 1.2 mils/year and 0.2 mils/year, respectively. However, the PHMSA inspectors observed significant pitting at area P01-02, in contrast to the UT data and photographs supplied by the operator. The PHMSA inspectors also question the area P02-01, a third point listed in the Discussion on the same pipe, which showed significant (30+%) metal loss and consistent (4 out of 4 measurements in excess of 0.1 inches) metal loss for the 2005 - 2011 time period. The average corrosion rate at P02-01 was 17 mils/year, one and two orders of magnitude over the "worst case scenario" points chosen by Chevron. Accordingly, Chevron incorrectly identified its worst case scenario of pipeline corrosion on P-110. The rate of corrosion is shown to be greatly increased in a third area of the P-110 pipeline simply by looking at the UT data Chevron provided in the Discussion. Even by UT testing, Chevron fails to demonstrate that the corrosion will not affect the safe operation of the pipeline before the next scheduled inspection, particularly if 30+% corrosion loss over 6 years is seen on parts of the P-110 pipeline.

The documents provided by Chevron did not demonstrate by test, investigation, or experience appropriate to the operating environment of the pipeline, that corrosion will only be light surface oxide, or that the corrosion will not affect the safe operation of the pipeline before the next scheduled inspection.

8. § 195.583 What must I do to monitor atmospheric corrosion control?
(a) You must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:
If the pipeline is located onshore then the frequency of inspection is: At least once every 3 calendar years, but with intervals not exceeding 39 months.

For all pipelines at the Willbridge Terminal, the operator did not produce records demonstrating compliance with 49 C.F.R. § 195.583(a). The pipelines at the Willbridge Terminal are onshore pipelines and are exposed to the atmosphere. Accordingly, Chevron is required to inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion at least once every 3 calendar years, but with intervals not exceeding 39 months. Chevron stated that weekly checks, monthly checks, and 5-year API 570 inspections, in combination, satisfy § 195.583(a). Chevron provided May - July 2016 records of weekly and monthly checks of the pipelines at the Willbridge Terminal, which showed no mention of any atmospheric corrosion as opposed to what the PHMSA inspectors saw in the field. More detailed API 570 inspections were disclosed which note some atmospheric corrosion issues, however, these inspections are performed on a 5-year interval.

Additionally, Chevron's internally developed weekly and monthly checklists were not completed by qualified atmospheric corrosion inspectors. Also, the weekly and monthly checks were not focused on atmospheric corrosion but instead, the foci were the "Willbridge Terminal Routine Duties" and the "Willbridge Terminal Monthly In-Service Tank Inspection," respectively. The operator's current practices of a combination of weekly and monthly checks and 5-year inspections are insufficient to comply with the requirements of § 195.583(a).

As of April 27, 2017, under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed $209,002 per violation per day the violation persists up to a maximum of $2,090,022 for a related series of violations. We have reviewed the circumstances and supporting documents involved in this case, including the extensive time to transmit our findings, and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to correct the item(s) identified in this letter. Failure to do so will result in Chevron being subject to additional enforcement action.

No reply to this letter is required. If you choose to reply, in your correspondence please refer to **CPF 5-2019-5003W.** 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).

Sincerely,

Chris Hoidal
Acting Director, Western Region
Pipeline and Hazardous Materials Safety Administration

Cc: PHP-60 Compliance Registry
PHP-500 J. Owens (#152513)