



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials Safety
Administration**

233 Peachtree Street Ste. 600
Atlanta, GA 30303

WARNING LETTER

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

February 15, 2019

Mr. Graham Bacon
Group Sr. Vice President, Operations & EHS&T
Enterprise Products Operating, LLC
1100 Louisiana Street
Houston, TX 77002

CPF 2-2019-5002W

Dear Mr. Bacon:

Between May 14 and June 7, 2018, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety, inspected Dixie Pipeline Company, LLC (Dixie) records and selected procedures in Dixie's Houston, TX office, pursuant to Chapter 601 of 49 United States Code (U.S.C.). Dixie is a subsidiary of Enterprise Products Operating, LLC.

As a result of the inspection, it is alleged that Dixie has committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (CFR). The items inspected and the probable violations are:

1. §190.233 Corrective action orders.

(a) Generally. Except as provided by paragraph (b) of this section, if the Associate Administrator finds, after reasonable notice and opportunity for hearing in accord with paragraph (c) of this section, a particular pipeline facility is or would be hazardous to life, property, or the environment, the Associate Administrator may issue an order pursuant to this section requiring the operator of the facility to take corrective action. Corrective action may include suspended or restricted use of the facility, physical inspection, testing, repair, replacement, or other appropriate action.

Dixie failed to meet the regulation because it did not follow the corrective actions prescribed in Corrective Action Order (CAO) 2-2007-5100H. Specifically, Dixie did not follow the written integrity verification plan (IVP), as required by Corrective Action No. 5 of the CAO, and as approved by the Director, Southern Region.

Following a failure on a segment of Dixie's 12-inch line between Erwinville, Louisiana, and Opelika, Alabama, PHMSA's Office of Pipeline Safety issued CAO 2-2007-5100H, dated November 2, 2007. The CAO prescribed various corrective actions required by Dixie. Corrective Action No.5 required Dixie submit a written IVP to verify the integrity of the referenced segment. Further, Corrective Action No.6 required that the plan be submitted for approval to the Director, Southern Region, and that the plan be implemented as approved. In response to the referenced requirements of the CAO, Dixie submitted a Long Term Integrity Verification Plan (LTIVP) on December 15, 2009 which included a Kiefner and Associates report (Kiefner's Report), titled "Long Term Integrity Verification Plan for the 12-Inch Pipe in the Dixie Pipeline," dated December 10, 2009, with an amendment being submitted on February 23, 2010. Following PHMSA's review, the LTIVP was approved on March 19, 2010. The CAO was closed on the same date.

The referenced LTIVP specified that reassessment intervals would be determined by pipe life calculations based, in part, on pressure cycle analysis as established in Kiefner's Report. The pressure cycle analysis included in Kiefner's Report referenced the Paris' Law crack growth equation. This equation, in turn, referenced crack growth constants. Kiefner's Report incorporated API/ASME's crack growth constants, as referenced in the 2007 Edition of API/ASME Standard 579, titled "Fitness-For-Service Assessment," for calculation of the Paris' Law equation.

During PHMSA's review, it was revealed that Dixie based the following pipe life calculations on PRCI crack growth constants rather than the API/ASME constants, as referenced in the approved IVP:

- LID 120, AID 5459 – 12" Tangipahoa Discharge (Dated 11/08/2017)
- LID 120, AID 5459 – 12" Mt. Herman Discharge (Dated 11/08/2017)
- LID 120, AID 1588 – Baker (Dated 11/09/2017)

Following PHMSA's review, Dixie conducted new pipe life calculations referencing the API/ASME constants. These revised calculations decreased the time to failure by 36-39% when compared to the calculations based on the PRCI constants. This decrease, however, did not affect the reassessment schedules.

2. §195.406 Maximum Operating Pressure.

(a)

(b) No operator may permit the pressure in a pipeline during surges or other variations from normal operations to exceed 110 percent of the operating pressure limit established under paragraph (a) of this section. Each operator must provide adequate controls and protective equipment to control the pressure within this limit.

Dixie failed to meet the regulation because it did not consider pipeline surges in evaluating the adequacy of controls and protective equipment. Specifically, Dixie could not provide documentation that a surge analysis had been completed to ensure controls and protective equipment on Line 119 were adequate for control within 110% of the established MOP.

During PHMSA's June 5, 2018, records review, Dixie personnel were unable to provide record of any surge study for Dixie's Line ID 119. Following PHMSA's review, Dixie personnel presented PHMSA personnel with a surge study, dated June 6, 2018, documenting the determination surge pressures on Line ID 119 could not exceed 110% with the existing control points.

3. §195.452 Pipeline integrity management in high consequence areas

(a)

(f) What are the elements of an integrity management program?

An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:

(1)

(4) Criteria for remedial actions to address integrity issues raised by the assessment methods and information analysis (see paragraph (h) of this section);

Dixie failed to meet the regulation because it did not include in its written integrity management program a mechanism to notify PHMSA if the operator cannot meet the schedule for evaluation and remediation and cannot provide safety through a temporary reduction in operating pressure, as required by §195.452(h)(1)(i).

Dixie's IM Procedure 5-01, titled "Determination of Temporary Reduction/Restriction to the Operating Pressure," prescribes requirements for determination of temporary reductions to the operating pressure. Section 1.2 of the above-referenced procedure identifies a "*possible pressure reducer*" as an "*Actionable anomaly that could affect an HCA... and cannot be remediated by the required regulatory date.*" The procedure, however, does not specify the requirement to notify PHMSA if the remediation is not completed by the regulatory date and a pressure reduction cannot be implemented. The

procedure does recognize long term pressure reductions as described in §195.452(h)(1)(ii) and requires notification to PHMSA if such an event occurs.

As of April 27, 2017, under 49 U.S.C. § 60122 and 49 CFR § 190.223, Dixie is 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, and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to correct the items identified in this letter. Failure to do so will result in Dixie 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 2-2019-5002W**. 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,



James A. Urisko
Director, Office of Pipeline Safety
PHMSA Southern Region