U.S. Department
of Transportation

**Pipeline and
Hazardous Materials
Safety Administration**

840 Bear Tavern Road, Suite 300
West Trenton, NJ 08628
609.771.7800

# NOTICE OF PROBABLE VIOLATION
# PROPOSED CIVIL PENALTY
# and
# PROPOSED COMPLIANCE ORDER

**OVERNIGHT EXPRESS DELIVERY**

March 15, 2019

Clark C. Smith
Chairman, President & CEO
Buckeye Partners, LP
9999 Hamilton Boulevard
Breinigsville, PA 18031

**CPF 1-2019-5003**

Dear Mr. Smith:

From June 22, 2017, to September 28, 2017, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA), and inspectors from the New York State Department of Public Services (NYSDPS), acting as agents of PHMSA, pursuant to Chapter 601 of 49 United States Code (U.S.C.), performed an integrated inspection of Buckeye Partners, LP's (Buckeye) "Buckeye East" pipeline system located throughout Pennsylvania, New Jersey and New York.

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

1. **§ 195.132 Design and construction of aboveground breakout tanks.**

   **(b) For aboveground breakout tanks first placed in service after October 2, 2000, compliance with paragraph (a) of this section requires one of the following:**

**(1) Shop-fabricated, vertical, cylindrical, closed top, welded steel tanks with nominal capacities of 90 to 750 barrels (14.3 to 119.2 m3) and with internal vapor space pressures that are approximately atmospheric must be designed and constructed in accordance with API Spec 12F (incorporated by reference, see § 195.3).**

**(2) Welded, low-pressure (i.e., internal vapor space pressure not greater than 15 psig (103.4 kPa)), carbon steel tanks that have wall shapes that can be generated by a single vertical axis of revolution must be designed and constructed in accordance with API Std 620 (incorporated by reference, see § 195.3)**

**(3) Vertical, cylindrical, welded steel tanks with internal pressures at the tank top approximating atmospheric pressures (i.e., internal vapor space pressures not greater than 2.5 psig (17.2 kPa), or not greater than the pressure developed by the weight of the tank roof) must be designed and constructed in accordance with API Std 650 (incorporated by reference, see § 195.3)**

**(4) High pressure steel tanks (i.e., internal gas or vapor space pressures greater than 15 psig (103.4 kPa)) with a nominal capacity of 2000 gallons (7571 liters) or more of liquefied petroleum gas (LPG) must be designed and constructed in accordance with API Std 2510 (incorporated by reference, see §195.3)".**

Buckeye failed to design and construct an aboveground breakout tank first placed in service after October 2, 2000, in accordance with one of the standards required pursuant to § 195.132(b). Specifically, Buckeye failed to design and construct the shop-fabricated, 476-barrel capacity relief breakout Tank 3 at its Tuckerton (RG) facility to a standard listed in § 195.132(b).

During the inspection, the PHMSA inspector reviewed records of aboveground breakout tanks within Buckeye's system. Based on a summary spreadsheet of breakout tank data provided by Buckeye, RG Tank 3 was documented as being designed and constructed in 2010 to the Underwriters Laboratories 142 (UL 142) standard. UL 142 applies to shop fabricated, steel, atmospheric tanks in a combination of shapes and orientations. Tank 3 is a welded, fixed roof, horizontally oriented relief breakout tank with a 476-barrel capacity.

Section 195.132(b) specifies that in order to comply with § 195.132(a), breakout tanks (as defined in § 195.2) must be designed and constructed in accordance with one of the four standards (incorporated by reference in § 195.3) listed therein; UL 142 is not listed. Additionally, the API standards listed in § 195.132(b) are intended for vertically oriented breakout tanks only, while Tank 3 is horizontally oriented. Thus, Tank 3 was not designed and constructed in accordance with a specified standard listed in § 195.132(b).

Therefore, Buckeye failed to design and construct its relief Tank 3 at its RG facility to a specification or standard incorporated by reference into Part 195 and specified in § 195.132(b).

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.**

Buckeye failed to follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities. Specifically, Buckeye failed to follow its *Corrosion Manual, Procedure A-02 External Corrosion Control,* issued 12/2012, (Procedure A-02), developed to comply with § 195.575(c),[1] by failing to inspect electrical isolation devices at 31 casings during its 2014-2016 annual surveys.

During the inspection, the PHMSA inspectors reviewed Buckeye's Procedure A-02 and annual corrosion-control survey records from 2014-2016 (Records) for the following pipeline segments:

- SN714RG-RG714ZG
- ZR802CY
- AN751BO
- BX751AN
- CZ751IX
- IX751WA

Section 9.4 of Procedure A-02 stated:

*"Annually during the corrosion control survey, installed electrical isolation devices shall be inspected for proper operation. Deficiencies shall be noted in the [Cathodic Protection Data Management (CPDM) System] and work orders initiated for repair or replacement of the deficient device."*

The Records demonstrated that in 34 instances on 31 different casings, Buckeye failed to inspect the casing's electrical isolation from the pipeline for proper operation on an annual basis during the 2014-2016 timeframe.

Therefore, Buckeye failed to follow its Procedure for annually inspecting electrical isolation devices in accordance with its Section 9.4.

[1] Section 195.575(c) states: "You must inspect and electrically test each electrical isolation to assure the isolation is adequate."

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.**

Buckeye failed to follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities. Specifically, Buckeye failed to follow its *Corrosion Manual, Procedure A-02 External Corrosion Control*, issued 12/12 (Procedure A-02), which required that abnormalities or equipment deficiencies be corrected within one inspection cycle or that the company document the reasons why such abnormalities or equipment deficiencies could not be corrected within that timeframe. Procedure A-02 contained both requirements under its own internal policies and procedures, as well as how to comply with § 195.573(e) and other corrosion-control regulations under Part 195. [2]

During the inspection, the PHMSA inspector reviewed Buckeye's Procedure A-02. Section 3.7, which stated in part:

*"...Any abnormality or equipment deficiency should be corrected within one inspection cycle. The reasons that any abnormality or equipment deficiency cannot be corrected within the timeframe must be documented in the Work Order."*

In the case of cathodic protection monitoring, Buckeye's procedures and 49 CFR 195.573(a)(1) require once per calendar year, not to exceed 15-month inspection cycles for protected pipelines.

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[2] Section 195.573(e) states: "(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)."

Section 195.401(b) states: "(b) An operator must make repairs on its pipeline system according to the following requirements:

(1) *Non Integrity management repairs.* Whenever an operator discovers any condition that could adversely affect the safe operation of its pipeline system, it must correct the condition within a reasonable time. However, if the condition is of such a nature that it presents an immediate hazard to persons or property, the operator may not operate the affected part of the system until it has corrected the unsafe condition.

(2) *Integrity management repairs.* When an operator discovers a condition on a pipeline covered under §195.452, the operator must correct the condition as prescribed in §195.452(h).

During the inspection, the PHMSA and NYDPS inspectors reviewed annual corrosion-control survey records from 2014-2017 and found the following recorded corrosion deficiencies where Buckeye failed to take corrective action within one inspection cycle, as required by Procedure A-02.

*Issue #1: Test Leads*

Procedure A-02 section 1.9.7 stated:

*"All test leads found to be defective (i.e., required readings cannot be obtained) shall be repaired within one inspection cycle, if other facilities are not readily available to ensure adequate protection."*

During the Long Island inspection, a NYSDPS inspector reviewed annual corrosion-control survey records for Buckeye's Long Island System. At the following test station, the records indicated that Buckeye failed to correct defective test leads within one inspection cycle. Buckeye also failed to document in the Work Order why the defective test leads could not be corrected within one inspection cycle.

Staten Island and Brooklyn to New Lots Junction Section B (2014-2016):

- Paulding & Speedwell Ave MP 5.004.

*Issue # 2: Structure-to-Soil Potentials (Low Readings)*

Procedure A-02, Sections 2.1.1-2.13, specify the cathodic-protection criteria that Buckeye utilizes at its test stations:

*"2.1.1 A negative structure-to-soil (cathodic) potential of at least 850 mV with the cathodic protection applied. This potential is measured with respect to a saturated copper/copper sulfate reference electrode contacting the electrolyte. Voltage drops other than those across the structure-to-electrolyte boundary must be considered for valid interpretation of this voltage measurement. Consideration is understood to mean the application of sound engineering practice in determining the significance of voltage drops using one or more of the following methods: reviewing the historical performance of the [cathodic protection (CP)] system, physical examinations for evidence of corrosion, measuring or calculating the voltage drop(s), and/or evaluating polarization levels.*

*2.1.2 A negative structure polarized potential of at least 850 mV relative to a saturated copper/copper sulfate reference electrode contacting the electrolyte.*

*2.1.3 A minimum of 100 mV of cathodic polarization between the structure surface and a stable reference electrode contacting the electrolyte. The formation or decay of polarization can be measured to satisfy this criterion."*

During the inspection, the PHMSA inspector reviewed annual corrosion-control survey records from 2014-2017 for the MX751RE, RE751AX, SN714RG-RG714ZG, MU720DT, and DT722DG pipeline segments. At the following 11 test stations, Buckeye's records designated it was utilizing the -0.850 Volt IR Free (IRF) criterion for determining adequate cathodic protection, which aligns with Section 2.1.2 of its Procedure A-02, and requires an IRF voltage more negative than -0.850 Volts. All 2014-2016 readings in the records for the following test stations demonstrated Structure (pipeline) IRF readings more positive than -0.850 Volts, and did not provide any justification as to why the required timeframe for remediation of these deficient readings could not be met:

DT722DG (2014-2016):

- Sun PL XNG 217+03

RE751AX (2014-2016):

- CR #85 Indian Creek Road MP 34.91
- Wild Cherry Rd MP 37.020
- CR #88 – Lower Macungie Rd MP 37.54
- CR #89 – East Texas Rd MP 38.050
- CR #93 – Hamilton Blvd. RT 222 MP 39.450
- Walnut St MP 39.972
- Broadway MP 40.358
- Briarcliff Rd. MP 40.397

SN714RG-RG714ZG (2014-2016):

- American Drive XNG Water Line 662+36

MU720DT (2014-2017):

- LR 07014 9686+94

In addition, records reviewed by NYDPS for the Long Island terminal, Test Point 16 sump tank discharge pipe demonstrated Structure pipe-to-soil (P/S) readings more postive than -0.850 V on 7/3/14 and 10/1/15. The records did not include any Structure IRF readings, indications of which criterion from Sections 2.1.1 – 2.1.3 of Procedure A-02 was utilized, or justification as to why the required timeframe for remediation of the deficient reading could not be met.

Therefore, for all the reasons detailed above, Buckeye failed in 26 instances to follow its own Procedure A-02, which requires that abnormalities or equipment deficiencies be corrected within one inspection cycle or that the company document the reasons why such abnormalities or equipment deficiencies could not be corrected within that timeframe.

This violation is a repeat of violations found in CPF 1-2013-5002, Item #1.

4. **§ 195.573 What must I do to monitor external corrosion control?**

   **(a)** ***Protected pipelines.*** **You must do the following to determine whether cathodic protection required by this subpart complies with § 195.571:**

   **(1) Conduct tests on the protected pipeline at least once each calendar year, but with intervals not exceeding 15 months. However, if tests at those intervals are impractical for separately protected short sections of bare or ineffectively coated pipelines, testing may be done at least once every 3 calendar years, but with intervals not exceeding 39 months.**

Buckeye failed to conduct tests on its cathodically protected pipelines at least once each calendar year, but with intervals not exceeding 15 months. Specifically, Buckeye failed to conduct tests at the required intervals at 20 test stations along the RE751AX pipeline and within its Long Island Pipeline System between 2014 and 2016.

During the inspection, the PHMSA inspector reviewed annual corrosion-control survey records from 2014-2016 for the MX751RE and RE751AX pipeline segments. At the following three test stations, Buckeye took CP readings on 6/19/2015 and 10/10/2016, exceeding the 15-month maximum interval by 21 days:

- SPECTRA (TET) Line #27 (36") Crossing, 1488+25
- SPECTRA (TET) Line #19 (30") Crossing, 1488+46
- SPECTRA (TET) Line #12 (24") Crossing, 1488+72

During the Long Island inspection, the NYSDPS inspector reviewed annual corrosion-control survey records for the Long Island System, including the Staten Island and Brooklyn to New Lots Junction (Section B) and the BP-Amoco-Ditmas Shippers Line (Section E). At the following 20 test stations, Buckeye failed in 30 instances to conduct CP tests at least once each calendar year:

| Section | MP No. | Test Station Location | Date Tested | Pipe-to-Soil Reading? | Number of Missed Calendar-Year Tests |
|---|---|---|---|---|---|
| B | 6.532 | S. Gannon/ Wooley Ave | 6/26/2014 | No reading | 3 |
| | | | 8/6/2015 | No reading | |
| | | | 11/1/2016 | No reading | |
| | 6.577 | S. Gannon/ Martin Ave | 8/6/2015 | Yes | 1 |
| | | | 11/1/2016 | No reading | |
| | 6.916 | Clove Lakes Expwy | 6/26/2014 | Yes | 2 |
| | | | 8/6/2015 | No reading | |
| | | | 11/1/2016 | No reading | |
| | 6.988 | S. Gannon/ Bradley | 8/6/2015 | Yes | 1 |
| | | | 11/1/2016 | No reading | |
| | 7.599 | Manor Road | 6/27/2014 | No reading | 2 |
| | | | 9/24/2015 | No reading | |
| | | | 11/1/2016 | Yes | |

| | | | | | |
|---|---|---|---|---|---|
| | 7.683 | Schmidts Lane | 9/24/2015 | Yes | 1 |
| | | | 11/1/2016 | No reading | |
| E | 0.001 | Long Island City Term. | 7/24/2014 | Yes | 1 |
| | | | 9/2/2015 | Yes | |
| | | | 11/9/2016 | No reading | |
| | 0.202 | Kingsland Ave/ N. Henry St | 7/10/2014 | Yes | 2 |
| | | | 9/3/2015 | No reading | |
| | | | 11/9/2016 | No reading | |
| | 0.219 | Kingsland Ave/ N Henry St | 7/10/2014 | Yes | 1 |
| | | | 9/3/2015 | No reading | |
| | | | 11/9/2016 | Yes | |
| | 0.405 | Kingsland Ave/ Greenpoint Ave | 7/10/2014 | No reading | 2 |
| | | | 9/3/2015 | No reading | |
| | | | 11/8/2016 | Yes | |
| | 0.428 | Kingsland Ave/ Greenpoint Ave | 7/10/2014 | Yes | 1 |
| | | | 9/3/2015 | No reading | |
| | | | 11/9/2016 | Yes | |
| | 0.754 | Kingsland Ave/ Noman Ave | 7/10/2014 | Yes | 1 |
| | | | 9/3/2015 | No reading | |
| | | | 11/9/2016 | Yes | |
| | 1.056 | Varick Ave/ Bridgewater Street | 7/10/2014 | Yes | 1 |
| | | | 9/3/2015 | Yes | |
| | | | 11/8/2016 | No reading | |
| | 1.192 | Varick/ Meeker Ave | 7/10/2014 | Yes | 1 |
| | | | 9/3/2015 | No reading | |
| | | | 11/8/2016 | Yes | |
| | 1.262 | Varick/80 Ft DS MP 1.237 | 7/10/2014 | No reading | 3 |
| | | | 9/3/2015 | No reading | |
| | | | 11/9/2016 | No reading | |
| | 1.279 | Varick/ Cherry St | 7/10/2014 | Yes | 2 |
| | | | 9/3/2015 | No reading | |
| | | | 11/9/2016 | No reading | |
| | 1.329 | Varick/ Anthony | 7/10/2014 | Yes | 1 |
| | | | 9/3/2015 | Yes | |
| | | | 11/8/2016 | No reading | |
| | 1.382 | Varick-284' DS of MP 1.425 | 7/10/2014 | Yes | 1 |
| | | | 9/3/2015 | No reading | |
| | | | 11/9/2016 | Yes | |
| | 1.586 | Varick-208' DS of MP 1.586 | 7/10/2014 | Yes | 1 |
| | | | 9/3/2015 | No reading | |
| | | | 11/9/2016 | Yes | |
| | 1.625 | | 7/10/2014 | Yes | 2 |
| | | | 9/3/2015 | No reading | |

| | | | | | |
|---|---|---|---|---|---|
| | | Varick-155Ft DS of MP 1.644 | 11/9/2016 | No reading | |

Therefore, Buckeye failed in 33 instances to conduct tests of the cathodic protection on its protected pipelines at least once each calendar year, but with intervals not exceeding 15 months, at 20 test stations.

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed $213,268 per violation per day the violation persists, up to a maximum of $2,132,679 for a related series of violations. For violation occurring on or after November 2, 2015, and before November 27, 2018, the maximum penalty may not exceed $209,002 per violation per day, with a maximum penalty not to exceed $2,090,022. For violations occurring prior to November 2, 2015, the maximum penalty may not exceed $200,000 per violation per day, with a maximum penalty not to exceed $2,000,000 for a related series of violations. For violations occurring prior to November 2, 2015, the maximum penalty may not exceed $200,000 per violation per day, with a maximum penalty not to exceed $2,000,000 for a related series of violations. The Compliance Officer has reviewed the circumstances and supporting documentation involved in the above probable violation(s) and has recommended that you be preliminarily assessed a civil penalty of $701,400 as follows:

| Item number | PENALTY |
|---|---|
| 2 | $219,600 |
| 3 | $265,200 |
| 4 | $216,600 |

Proposed Compliance Order

With respect to item 1 pursuant to 49 U.S.C. § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Buckeye Partners, L.P. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Response to this Notice

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. All material you submit in response to this enforcement action may be 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, or request a hearing under 49 CFR § 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 a Final Order. If you are responding to this Notice, we propose that you submit your correspondence to my office within 30 days from receipt of this Notice. This period may be extended by written request for good cause.

Please submit all correspondence in this matter to Robert Burrough, Director, PHMSA Eastern Region, 840 Bear Tavern Road, Suite 300, West Trenton, New Jersey 08628. Please refer to **CPF 1-2019-5003** on each document you submit, and whenever possible provide a signed PDF copy in electronic format. Smaller files may be emailed to robert.burrough@dot.gov. Larger files should be sent on a CD accompanied by the original paper copy to the Eastern Region Office.

Additionally, if you choose to respond to this (or any other case), please ensure that any response letter pertains solely to one CPF case number.

Sincerely,

Robert Burrough
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration

Enclosures: *Proposed Compliance Order*
*Response Options for Pipeline Operators in Compliance Proceedings*

# PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Buckeye Partners, L.P. (Buckeye) a Compliance Order incorporating the following remedial requirements to ensure the compliance of Buckeye with the pipeline safety regulations:

1. Regarding Item Number 1 of the Notice, pertaining to Buckeye's failure to construct Tank 3 at its Tuckerton (RG) facility in accordance with the standards required within § 195.132(b), Buckeye must complete one of the following actions within **90** days of receipt of the Final Order:

    a. Apply for a special permit with PHMSA for the continued operation of the breakout tank. Tank 3 must be removed and isolated from service until such time that the special permit receives approval.

    b. Permanently remove the breakout tank from operation.

2. Upon completion, Buckeye shall provide records demonstrating the removal of the tank from service (b. above), if elected.

3. It is requested (not mandated) that Buckeye maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Robert Burrough, Director, Eastern Region, Pipeline and Hazardous Materials Safety Administration. 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.