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File #: 137804

August 24, 2023

***VIA EMAIL (ADYOUNG@PA.GOV)***

Adam Young, Assistant Counsel  
Pennsylvania Public Utility Commission,  
Law Bureau  
P.O. Box 3265  
Harrisburg, PA 17101-3265

**Re: Notice of Proposed Rulemaking Regarding Hazardous Liquid Public Utility Safety Standards at 52 Pa. Code Chapter 59; Docket No. L-2019-3010267**

Dear Mr. Young:

Enclosed please find Laurel Pipe Line Company, L.P.'s Responses to the Data Requests issued by the Law Bureau of the Pennsylvania Public Utility Commission ("Commission"), Set I. Please direct any questions regarding this matter to the undersigned.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Garrett P. Lent".

Garrett P. Lent

GPL/dmc  
Enclosures

cc: Kriss E. Brown, Deputy Chief Counsel  
Elizabeth H. Barnes, Deputy Chief Counsel

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Notice of Proposed Rulemaking Regarding :  
Hazardous Liquid Public Utility Safety : Docket No. L-2019-3010267  
Standards at 52 Pa. Code Chapter 59; Docket :  
No. L-2019-3010267 :

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**LAW BUREAU  
DATA REQUESTS, SET I  
DIRECTED TO LAUREL PIPE LINE COMPANY, L.P.  
AND RESPONSES THERETO**

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1. Please provide the estimated incremental cost to increase the depth of cover of a hazardous liquid (HL) pipeline within an agricultural area of Pennsylvania, as required in the proposed regulations.

**RESPONSE:**

Laurel Pipe Line Company, L.P. (“Laurel” or the “Company”) generally increase the depth of cover of an existing HL pipeline when it seeks to relocate a pipeline. Laurel further provides an estimate of the costs it would expect to incur to relocate a pipeline in response to request numbers 2 and 3, below.

**RESPONDENT:**

Stephen Guenther, Director, Project Execution  
Buckeye Partners, L.P  
6161 Hamilton Blvd.  
Allentown PA 18106

**Dated: August 24, 2023**

2. Please provide incremental cost to relocate a pipeline away from a building, as required in the proposed regulations.

**RESPONSE:**

The quantification of the incremental costs to relocate an existing hazardous liquids pipeline away from a building would be dependent on a number of factors, including the diameter, length and location of the line, the method of relocation used, right-of-way (“ROW”) acquisition costs, and permitting costs, among other things.

- a. With respect to the estimated incremental cost per mile to relocate a pipeline that is currently out of service for other reasons, Laurel would preliminarily estimate this incremental cost per mile to be approximately \$1.25-\$2.25 million dollars. This estimate does not include the cost to idle and/or remove the existing pipeline from service to perform the relocation.
- b. With respect to the estimated incremental cost per mile to relocate a pipeline that is not currently out of service for other reasons, Laurel would preliminarily estimate this incremental cost per mile to be approximately \$1.5-\$2.5 million dollars. This estimate does include the cost to idle and/or remove the existing pipeline from service to perform the relocation. Laurel estimates that the cost to idle the pipeline would be approximately \$250,000-\$500,000 per mile. However, the cost estimate to idle and/or remove the existing pipeline from service is dependent on the length of the line; the cost estimate may be less for much shorter lines and may be much greater for much longer lines with laterals and/or aboveground valve stations that are connected to the line.

**RESPONDENT:**

Stephen Guenther, Director, Project Execution  
Buckeye Partners, L.P.  
6161 Hamilton Blvd.  
Allentown PA 18106

**Dated: August 24, 2023**

3. Provide the best case and worse case cost estimates to relocate a pipeline to maintain a 12-inch clearance from other underground structures or pipelines.

**RESPONSE:**

Under a best case scenario, the cost to relocate an existing pipeline to maintain a 12-inch clearance from other underground structures or pipelines would be \$500,000 if the length of the line was short and the purge of the line was uncomplicated and cost-efficient. Under a worst case scenario, the cost to relocate an existing pipeline to maintain a 12-inch clearance from other underground structures or pipelines would be \$1.5 million or more if the line required a long purge and the clearance was complicated and not cost-efficient.

**RESPONDENT:**

Stephen Guenther, Director, Project Execution  
Buckeye Partners, L.P.  
6161 Hamilton Blvd.  
Allentown PA 18106

**Dated: August 24, 2023**

4. Regarding construction costs:
  - a. Cost of a single non-destructive test (NDT) on a weld during a pipeline construction project and
  - b. Additional cost if ALL welds must be NDT.
  - c. Provide an estimated cost per mile to NDT each weld on a pipeline new construction or reconstruction/repair.
  - d. Incremental cost to add additional NDT while on a construction job that already required NDT.

**RESPONSE:**

- a. Based upon its knowledge and experience, Laurel estimates that it costs around \$2,500 for an NDT crew per day. However, the cost to perform the NDT on a weld will vary based upon the number of welds that this crew could perform over the course of the day. For example, performing an NDT for a single weld might cost \$500 if this crew was able to perform an NDT on 5 welds that day, or it could cost \$2,500 in a circumstance where the crew is just testing a tie-in weld. The number of welds that could be tested will depend on the size, length and other characteristics of the line.
- b. This cost estimate would depend on the size of the line and how many welds could be tested by an NDT crew over the course of a day. Please see the response to subpart (a) above.
- c. Please see the response to subpart (a) above.
- d. Please see the response to subpart (a) above.

**RESPONDENT:**

Stephen Guenther, Director, Project Execution  
Buckeye Partners, L.P.  
6161 Hamilton Blvd.  
Allentown PA 18106

**Dated: August 24, 2023**

5. Cost for protection of valve stations from vehicular damage using jersey barriers or other adequate vehicular protection such as bollards.

**RESPONSE:**

Based upon its knowledge and experience, Laurel estimates that the cost to install jersey barriers or other vehicular protection (e.g., bollards) at a valve station would be approximately \$2,500 per jersey barrier or bollard installed around a valve station. The total costs to implement these protections at a valve station will be dependent on the size, location and other characteristics of the valve station.

**RESPONDENT:**

Stephen Guenther, Director, Project Execution  
Buckeye Partners, L.P.  
6161 Hamilton Blvd.  
Allentown PA 18106

**Dated: August 24, 2023**

6. Pressure testing: Section 59.139
  - a. Incremental cost to hydrostatically test a pipeline and record results.
  - b. Breakdown of estimated cost to take a HL pipeline out of service to perform a hydrostatic test.
    - i. Cost per mile
    - ii. Cost per 1000 gallon of water treatment and disposal.
  - c. Breakdown of estimated cost to run a hydrotest on a pipeline that is already purged of product.
  - d. Breakdown of incremental estimated cost to run a hydrotest on a pipeline that is already purged of product.
  - e. Breakdown of incremental estimated cost to run a hydrotest on a pipeline that is not flowing product but has not been purged or prepared for a hydrostatic test.

**RESPONSE:**

- a. Based upon its knowledge and experience, Laurel estimates that the incremental cost to hydrostatically test and record the results of the test to be approximately \$345,000 per mile. This estimate would vary based on the length, complexity and other characteristics of the subject pipeline.
- b. Based upon its knowledge and experience, Laurel estimates that the cost to take a hazardous liquids pipeline out of service for purposes of performing a hydrostatic test is dependent on the length, complexity and other characteristics of the subject pipelines. However, Laurel provides the following estimated costs with respect to subpart (b):
  - i. \$250,000 – \$500,000
  - ii. \$690 per 1000 gallon of water treatment and disposal.
- c. Based upon its knowledge and experience, Laurel estimates that the estimated cost to run a hydrostatic test on a pipeline that is already purged of product is dependent on the length, complexity and other characteristics of the subject pipelines. However, Laurel preliminarily estimates that this cost would be approximately \$500,000 to \$1 million per mile for a given pipeline.
- d. Based upon its knowledge and experience, Laurel estimates that the incremental estimated cost to run a hydrostatic test on a pipeline that is already purged of product is dependent on the length, complexity and other characteristics of the subject pipelines. However, Laurel preliminarily estimates that this incremental cost would be approximately \$100,000 to \$300,000 per mile for a given pipeline.
- e. Based upon its knowledge and experience, Laurel estimates that the incremental estimated cost to run a hydrostatic test on a pipeline that is not flowing product but has not been purged or prepared for a hydrostatic test is dependent on the length, complexity and other characteristics of the subject pipelines. However, Laurel

preliminarily estimates that this incremental cost would be approximately \$250,000 to \$500,000 per mile for a given pipeline.

**RESPONDENT:**

Nicholas E. Bartal, Manager, Pipeline Integrity  
and  
Stephen Guenther, Director, Project Execution  
Buckeye Partners, L.P.  
6161 Hamilton Blvd.  
Allentown PA 18106

**Dated: August 24, 2023**

7. In-line inspection (ILI) tool runs:
  - a. Incremental cost breakdown for ILI tool runs using Magnetic Flux Leakage (MFL), Caliper and Geo-tools.
  - b. Incremental cost breakdown for adding another tool, such as an ultrasonic tool for crack detection, to an already planned tool run.
  - c. Incremental cost increase to perform ILI tool runs on a 3-year interval vs. a 5-year interval.

**RESPONSE:**

- a. Based upon its knowledge and experience, Laurel estimates that the incremental cost breakdown for ILI tool runs using Magnetic Flux Leakage (MFL), Caliper and Geo-tools is dependent on pipeline mileage and other characteristics of the subject pipelines. However, Laurel preliminarily estimates that this incremental cost would be approximately \$75,000 to \$350,000. This estimate includes tool run, reporting, and field costs.
- b. Based upon its knowledge and experience, Laurel estimates that the incremental cost breakdown for adding another tool, such as an ultrasonic tool for crack detection, to an already planned tool run is dependent on pipeline mileage and other characteristics of the subject pipelines. However, Laurel preliminarily estimates that this incremental cost would be approximately \$325,000 to \$1,000,000.
- c. Based upon its knowledge and experience, Laurel preliminarily estimates that the incremental cost increase to perform ILI tool runs on a 3-year interval vs. a 5-year interval would be about \$225,000 per year. This estimate includes MFL, Caliper and Geo-tools at each assessment but does not include incremental costs of adding ultrasonic tools to each assessment.

**RESPONDENT:**

Nicholas E. Bartal, Manager, Pipeline Integrity  
Buckeye Partners, L.P.  
6161 Hamilton Blvd.  
Allentown PA 18106

**Dated: August 24, 2023**

8. Leak detection and training:
  - a. Cost per mile for leak detection technology that can detect a small leak and alarm to a control room.
  - b. Cost to perform a Tabletop exercise in Pennsylvania involving regionalized parties.
  - c. Cost perform training to localized emergency response officials.
  - d. Cost to meet in person with local liaison officials.

**RESPONSE:**

- a. Based upon its knowledge and experience, Laurel estimates that the cost per mile for leak detection technology that can detect a small leak and alarm to a control room will depend on the level of accuracy designed and required for this technology. In Laurel's experience, inline metering is the most accurate, followed by clamp on technology, then pressure point analysis. Laurel preliminarily estimates the cost per mile to implement this technology as follows:
  - i. Inline metering, such as turbine or Coriolis meters, would range from \$250,000 to \$500,000.
  - ii. Clamp-on sonic metering would range from \$150,000 to \$250,000.
  - iii. PPA (Pressure Point Analysis) locations monitor pressure at upstream and downstream locations via pressure transmitters would range from \$30,000 to \$100,000.
- b. Based upon its knowledge and experience, Laurel estimates that the cost to perform a Tabletop exercise in Pennsylvania involving regionalized parties will depend on the number of people involved in the exercise and whether or not there are field operations involved. Laurel preliminarily estimates the cost per Tabletop exercise to be approximately \$40,000-60,000 depending on number of people involved. This estimate assumes no field operations.
- c. Based upon its knowledge and experience, Laurel estimates that the cost to perform training for localized emergency response officials will depend upon the number of people involved and the level of training provided. Laurel preliminarily estimates the cost per training to be approximately \$10,000-\$20,000.
- d. Based upon its knowledge and experience, Laurel estimates that the cost to meet in person with local liaison official would depend on the length of the meeting, the number of individuals participating in the meeting and whether or not consultants or legal representation is present. Laurel preliminarily estimates that

the cost per meeting could be approximately several hundred to several thousand dollars per meeting.

**RESPONDENT:**

Stephen Guenther, Director, Project Execution  
Buckeye Partners, L.P.  
6161 Hamilton Blvd.  
Allentown PA 18106

**Dated: August 24, 2023**

9. Corrosion:
- a. Incremental cost of Close Interval Survey (CIS) runs including paved areas in an urban environment.
  - b. Incremental Cost of CIS excluding paved areas in an urban environment.

**RESPONSE:**

The Laurel pipeline system consists of several pipeline segments totaling 364 miles in length. Currently, there is no regulatory mandate to perform a Close Interval Survey (CIS) on a regular schedule. Based upon Laurel's knowledge and experience of existing market conditions, it estimates that the cost of a CIS in an urban environment could be budgeted at a rate of approximately \$600/mile over unpaved land.

When CIS is required over pavement/concrete (i.e. roadways, parking lots), holes need to be drilled in the pavement for each reading, water filled into the hole, reading collected, and then each hole filled with pavement filler. In addition, if holes are not filled, water retention will cause pavement and concrete to crack from freeze/thaw over time. Based upon Laurel's knowledge and experience of existing market conditions, the process to take reads across pavement adds additional cost to a survey of approximately 10x the cost of unpaved land (i.e., approximately \$6000/mile) for each area for additional time, materials, traffic control, and scheduling (often roadways can only be accessed at night).

- a. Incremental cost of Close Interval Survey (CIS) runs including paved areas in an urban environment: approximately \$6,000/mile.
- b. Incremental cost of Close Interval Survey (CIS) excluding paved areas in an urban environment: approximately \$600/mile.

**RESPONDENT:**

Robert C. Geib, Manager, Corrosion Control  
Buckeye Partners, L.P.  
6161 Hamilton Blvd.  
Allentown PA 18106

**Dated: August 24, 2023**

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Notice of Proposed Rulemaking Regarding :  
Hazardous Liquid Public Utility Safety : Docket No. L-2019-3010267  
Standards at 52 Pa. Code Chapter 59; Docket :  
No. L-2019-3010267 :

**VERIFICATION**

I, Robert Geib, being Manager, Corrosion Control for Buckeye Partners, hereby state that the fact above set forth are true and correct to the best of my knowledge, information, and belief and that I expect Buckeye Partners, L.P. to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 8/23/2023

  
\_\_\_\_\_  
Robert Geib  
Manager, Corrosion Control  
Buckeye Partners, L.P.

**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

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Hazardous Liquid Public Utility Safety : Docket No. L-2019-3010267  
Standards at 52 Pa. Code Chapter 59; Docket :  
No. L-2019-3010267 :

**VERIFICATION**

I, Stephen Guenther, being Director Project Execution for Buckeye Partners, L.P., hereby state that the fact above set forth are true and correct to the best of my knowledge, information, and belief and that I expect Buckeye Partners, L.P. to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 8/24/23

  
Stephen Guenther  
Director Project Execution  
Buckeye Partners, L.P.

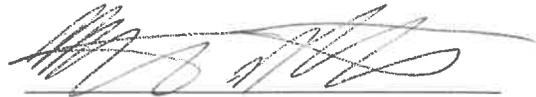
**BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Notice of Proposed Rulemaking Regarding :  
Hazardous Liquid Public Utility Safety : Docket No. L-2019-3010267  
Standards at 52 Pa. Code Chapter 59; Docket :  
No. L-2019-3010267 :

**VERIFICATION**

I, Nicholas Bartal, being Manager, Pipeline Integrity for Buckeye Partners, L.P., hereby state that the fact above set forth are true and correct to the best of my knowledge, information, and belief and that I expect Buckeye Partners, L.P. to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 8/23/2023



Nicholas Bartal  
Manager, Pipeline Integrity  
Buckeye Partners, L.P.