



MIPC, LLC
920 Cherry Tree Road
Aston, PA 19014

October 9, 2023

VIA ELECTRONIC MAIL ONLY (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 MIPC, LLC's Responses to the Data Requests issued by the Law Bureau of the Pennsylvania Public Utility Commission, Set I. Please direct any questions regarding this matter to the undersigned.

Should any additional information be needed, please feel free to contact me at 484-816-3302.

Respectfully submitted,

A handwritten signature in black ink that reads "John Bowen". The signature is written in a cursive, flowing style.

John Bowen
Regulatory Compliance Lead

PUC Requested Item #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.

MIPC Response:

MIPC currently does not operate a pipeline within an agricultural area of Pennsylvania.

PUC Requested Item #2

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

- a) Provide the estimated cost to relocate if the pipeline is already out of service for other reasons, and/or**
- b) The cost to remove the pipeline from service to accomplish the relocation.**

MIPC Response:

The incremental costs to relocate an existing hazardous liquids pipeline away from a building is dependent upon a number of factors, including the diameter, length and location of the line, right-of-way (“ROW”) acquisition costs, and permitting costs.

- a) MIPC estimates the incremental cost per mile to relocate a pipeline that is currently out of service for other reasons, to be approximately \$2,250,000 to \$7,250,000.
- b) MIPC estimates the incremental cost per mile to relocate a pipeline that is not currently out of service for other reasons, to be approximately \$2,500,000 to \$7,500,000. This estimate assumes that the existing pipeline will remain in service until the tie-ins for the new pipeline are constructed.

PUC Requested Item #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.

MIPC Response:

Depending upon the complexity of the scenario (e.g. size of the line, geographic location & urban involvement), MIPC estimates the overall cost will range from \$2,500,000 to \$7,500,000.

PUC Requested Item #4

Regarding construction costs:

- a) **Cost of a single non-destructive test (NDT) on a weld during a pipeline construction project.**
- 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.**

MIPC Response:

- a) MIPC estimates that a single non-destructive weld on a pipeline during construction cost \$2,500. This is based on the daily cost of an NDT crew.
- b) \$2,500 for an NDT crew per day. An NDT crew can inspect between 4-6 welds in a daily shift. However, this widely depends on the pipeline and construction conditions, the NDT technician experience and the required NDT specifications.
- c) An NDT crew can inspect 4-6 welds per day. If the pipe is constructed of 40 foot pipe segments, there will be ~ 135 welds per mile of new construction. At \$2,500 per day for the NDT crew, one mile of pipe cost \$67,500.
- d) Each additional NDT crew added to a construction job will cost \$2,500/ day.

PUC Requested Item #5

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

MIPC Response:

MIPC estimates that the cost to install jersey barriers or bollards at a valve station would be approximately \$2,500 per jersey barrier or \$1,000 per bollard. The number of jersey barriers or bollards is dependent upon the valve station location and size. It is recommended that bollards are spaced 3-5 feet apart and installed at all corners.

PUC Requested Item #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.**

MIPC Response:

- a) Based on a recent project involving a 6" diameter pipeline that was less than ¼ mile in length, MIPC's incremental cost to hydrostatically test a pipeline and record the results is \$75,000 per quarter mile.
- b) MIPC estimates that the cost to take a hazardous liquids pipeline out of service for purposes of performing a hydrostatic test is an extrapolation of our recent test as noted above, approximately:
 - i. \$300,000 per mile
 - ii. \$1,200 per 1000 gallon of water
- c) MIPC has not hydrostatically tested a pipeline that is already purged of product.
- d) MIPC has not hydrostatically tested a pipeline that is already purged of product.
- e) MIPC estimates that the breakdown of 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 would be approximately \$75,000 per quarter mile.

PUC Requested Item #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.**

MIPC Response:

- a) Based upon its knowledge and experience, MIPC estimates that the incremental cost breakdown for ILI tool runs using Magnetic Flux Leakage (MFL), Caliper and Geo-tools depends upon the length of the line, its general characteristics, specific MFL technologies utilized, and if any modifications to the tool traps would be needed. MIPC estimates that this incremental cost would be approximately \$100,000 to \$150,000. This estimate includes tool run and reporting and assumes less than or equal to 10" diameter pipe. The higher end of this estimate includes the incorporation of different MFL technologies such as MFL-A, MFL-C and SMFL tools. If field changes are necessary to accommodate increased tool lengths, an additional \$50,000 can be expected to be included in the aforementioned estimate.
- b) MIPC has utilized ultrasonic crack detection tools but did not incorporate the technology onto an already planned tool run. These would be standalone tool runs, and similarly are dependent on pipeline mileage and other characteristics of the subject pipelines. MIPC's estimates that the cost of an ultrasonic tool for crack detection would cost approximately \$200,000 to \$330,000, including the tool run and reporting. Tracking is not included in this estimate as MIPC has historically performed this function internally.
- c) Based upon MIPC's recent tool runs and the fact that our pipeline segments are under 30 miles in length, the incremental cost of running MFL, Caliper, and Geo tools as well as Ultrasonic crack detection tools would be the full cost of each run as noted in responses to questions (a) and (b) above if MIPC were to perform in-line inspections on a 3-year interval vs. a 5-year interval.

PUC Requested Item #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.**

MIPC Response:

- a) MIPC 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 MIPC's experience, inline metering is the most accurate, followed by clamp on technology, then pressure point analysis. MIPC 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 per mile.
 - ii. Clamp-on sonic metering would range from \$150,000 to \$250,000 per mile.
 - iii. PPA (Pressure Point Analysis) locations monitor pressure at upstream and downstream locations via pressure transmitters would range from \$30,000 to \$100,000 per mile.
- b) MIPC 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. MIPC preliminarily estimates the cost per Tabletop exercise to be approximately \$10,000 to \$30,000 depending on number of people involved. This estimate assumes no field operations.
- c) MIPC 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. MIPC preliminarily estimates the cost per training to be approximately \$10,000 to \$20,000.
- d) MIPC estimates that the cost to meet in-person with local liaison officials would depend on the length of the meeting, the number of individuals participating in the meeting and whether or not consultants or legal representation are present. MIPC preliminarily estimates that the cost per meeting could be approximately \$1,000 to \$5,000 per meeting.

PUC Requested Item #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.**

MIPC Response:

- a) MIPC estimates the incremental cost of a Close Interval Survey (CIS) run, including paved areas in an urban environment, at approximately \$5,000/mile.
- b) MIPC estimates the incremental cost of Close Interval Survey (CIS) run, excluding paved areas in an urban environment, at approximately \$2,000/mile.