# BEFORE THE PUBLIC SERVICE COMMISSION
# OF THE STATE OF MISSOURI

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| In the Matter of Laclede Gas Company | ) | |
| Concerning a Natural Gas Incident at | ) | **File No. GS-2016-0160** |
| 5730 Mango Drive in Oakville, Missouri | ) | |

## STAFF REPLY TO LACLEDE GAS COMPANY'S RESPONSE TO STAFF RECOMMENDATIONS

**COMES NOW** the Staff of the Missouri Public Service Commission and submits this Reply to *Laclede Gas Company's Response to Staff Recommendations in Staff's Gas Incident Report* and in support thereof states as follows:

1. This case concerns a gas safety incident which occurred on December 14, 2015, in Oakville, Missouri, an area served by Laclede Gas Company ("Laclede" or "Company").

2. On October 21, 2016, the Staff's Safety Engineering Unit filed its *Gas Incident Report* in this case. Among other items, the *Gas Incident Report* contained certain recommendations based on Staff's investigation and analysis of the incident.

3. On January 26, 2017, Laclede filed *Laclede Gas Company's Response to Staff Recommendations in Staff's Gas Incident Report* ("Response"). Laclede's Response included a modified version of Staff's recommendations from the *Gas Incident Report*, with edits by Laclede based on Laclede's discussions with Staff's Safety Engineering Unit. Laclede's Response indicates that it agrees to those recommendations, as edited.

4. Staff's recommendations, with Laclede's edits, are as follows:

"Staff recommends that the following be done to include identification, monitoring and evaluation of these threats going forward in the Company's DIMP:

1. Staff recommends that Laclede gather and provide to Staff the following information that will serve as a baseline to assess these threats going forward:

   A. Review its historical PE heat-fusion procedures to determine when the Company first required its PE joiners to be qualified to make heat-fusion joints in accordance with a procedure that produced joints stronger than the pipe.[1] If this date cannot be determined, a default of July 1, 1981, should be used.[2]

   B. Review its past leak history on the PE pipe installed using heat fusion joining methods **prior to and including** the date determined in part A above (or July 1, 1981 if date cannot be determined) for a period covering the past five years of data and determine:

      i. Number of leaks attributed to joint failure per year;

      ii. Number of leaks with contributing factors of roots indicated per year; and

      iii. Number of leaks where the cause was not determined per year.[3]

[1] Specifically, when the Company's procedures were revised to be consistent with the requirements of 49 CFR 192.281, 192.283 and 192.285 that were effective as of July 1, 1980.

[2] Staff added one year after the effective date requiring that the joint be stronger than the body of the pipe, assuming that some time would have been required for Missouri to adopt the federal regulation and for Laclede to implement revisions to its procedures.

[3] This recommendation is included to capture instances where pipe was not excavated to determine the cause of a leak, but instead repair was made by installing a replacement segment of pipe. Staff's opinion is that that may have been the case in the past when leaks occurred under trees. Rather than remove the tree to determine the cause of the leak, the Company may have installed replacement piping.

C. Review its past leak history on the PE pipe installed using heat fusion joining methods installed **after** the date determined in part A above (or July 1, 1981 if date cannot be determined) for a period covering the past five years of data and determine:

i. Number of leaks attributed to joint failure per year;

ii. Number of leaks with contributing factors of roots indicated per year; and

iii. Number of leaks where the cause was not determined per year.

2. Staff recommends that going forward, the Company should:

A. Revise its applicable procedures to require field personnel to remove and retain each PE pipe segment where a leak was exposed in the normal course of operations (the “exposed leak”), and tree roots could have contributed to the leak;

B. Have knowledgeable personnel examine the exposed segments in the field to determine and document if the tree roots contributed to the leak by exertion of force or were simply present in the excavation and did not contribute to the leak;

C. For each instance where tree roots contributed to an exposed leak, record where the leak occurred (e.g. body of pipe, heat-fusion joint);

D. For each instance where tree roots contributed to an exposed leak, determine and record the installation date of the pipe; and

E. Compile the data on an on-going basis and evaluate annually to determine if there are any ascertainable trends in damages done by tree-roots.

Staff further recommends that this additional monitoring be incorporated into the Company's DIMP, and that the results be reviewed annually to evaluate the relative risk ranking and determine if additional corrective measures or accelerated actions are warranted.

3. Staff recommends that going forward, the Company should:

   A. Add a sub-threat of PE heat-fusion joints installed on or before July 1, 1981 (or other date as determined in recommendation 1 by review of procedures), under the Material/Weld/Joint category of its DIMP plan;

   B. Revise its applicable procedures to require field personnel to remove and retain each PE heat-fusion joint that appears to have failed resulting in an exposed leak;

   C. Have knowledgeable personnel examine each retained PE heat-fusion joint to determine and document whether the failure occurred in the joint or in the body of the pipe;

   D. For each instance where a failure occurred in a heat-fusion joint with an exposed leak, record additional contributing factors (e.g., tree root, past excavation damage);

   E. For each instance where a failure occurred in a heat-fusion joint with an exposed leak, determine and record the installation date of the pipe; and

   F. Compile the data on an on-going basis and evaluate annually to determine if there are any ascertainable trends in PE heat-fusion joint failures.

Staff further recommends that this additional monitoring be incorporated into the Company's DIMP, and that the results be reviewed annually to evaluate the relative risk

ranking and determine if additional corrective measures or accelerated actions are warranted."

5. Staff agrees with the edited recommendations as set forth above, which have been agreed to and accepted by Laclede.

**WHEREFORE**, Staff respectfully requests the Commission issue an order directing Laclede to comply with the recommendations set forth hereinabove.

Respectfully submitted,

**/s/ Jeffrey A. Keevil**
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## CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing have been mailed, hand-delivered, or transmitted by facsimile or electronic mail to counsel of record this 6th day of February, 2017.

**/s/ Jeffrey A. Keevil**