

MEMORANDUM

TO: Missouri Public Service Commission Official Case File
Case File No. GS-2004-0257, City Utilities of Springfield

FROM: Rick Fennel, Energy Department - Safety/Engineering

/s/ Rick Fennel 6/18/2007 /s/ Lera Shemwell 6/18/2007
Project Coordinator General Counsel's Office

SUBJECT: Staff Reply to City Utilities of Springfield Response to Staff's Reply Filed May 10, 2007.

DATE: June 18, 2007

SUMMARY

After review of the modification to the recommendations of the Energy Department – Safety/Engineering Staff of the Missouri Public Service Commission (Staff) filed on May 17, 2007 and discussions with Staff, City Utilities' of Springfield (City Utilities) has indicated that it does not object to Staff's modified recommendations, with two exceptions. Since it filed its response to Staff's May 17, 2007 report, Staff and City Utilities have come to an agreement regarding one of the exceptions - the reporting requirements. However, Staff and City Utilities have not come to an agreement on the other exception. Staff still believes that a significant reduction in the replacement of nearby or adjacent pipe segments beyond the specific piping in the same work order number as proposed by City Utilities would be counter productive to the program. Staff's recommends that the Commission adopt its Recommendation 1. as modified in Staff's May 17, 2007 report.

BACKGROUND

On March 30, 2007, the Energy Department – Safety/Engineering Staff of the Missouri Public Service Commission (Staff) filed a *Staff Status Report* (Report) in Case No. GS-2004-0257. The Report detailed the current status of Staff's evaluation of City Utilities' of Springfield (City Utilities) plastic pipe monitoring, evaluation, and replacement program. The Report listed several recommendations to the current replacement program for plastic piping. On April 16, 2007, City Utilities voluntarily filed CITY UTILITIES OF SPRINGFIELD'S RESPONSE TO PSC STAFF RECOMMENDATIONS FILED MARCH 30, 2007 (RESPONSE). City Utilities' RESPONSE listed several objections to Staff's recommendations. On April 18, 2007, the Commission issued an ORDER DIRECTING FILING for Staff to file a reply to City Utilities' RESPONSE no later than April 26, 2007. On April 26, 2007, Staff filed STAFF'S REPLY TO THE COMMISSION'S ORDER TO RESPOND TO CITY UTILITIES OF SPRINGFIELD RESPONSE TO PSC STAFF RECOMMENDATIONS (REPLY). Staff's REPLY

requested additional time to discuss and formulate a reply to City Utilities' April 16, 2007 RESPONSE to address concerns with the progress of the program. On April 30, 2007, the Commission issued an ORDER GRANTING EXTENSION OF TIME for Staff to file its reply to City Utilities' April 16, 2007 RESPONSE no later than May 10, 2007. On May 10, 2007, Staff filed STAFF'S REPLY TO RESPONSE OF CITY UTILITIES OF SPRINGFIELD. Staff's REPLY listed several modifications to Staff's March 30, 2007 recommendations. On May 17, 2007, City Utilities voluntarily filed CITY UTILITIES OF SPRINGFIELD'S RESPONSE TO PSC STAFF REPLY FILED MAY 10, 2007. In this response, City Utilities indicated that it does not object to Staff's modified recommendations, with two exceptions. The Commission issued an ORDER DIRECTING STAFF RESPONSE for Staff to file a reply to City Utilities' May 17, 2007 RESPONSE no later than June 18, 2007.

Staff's initial recommendations filed in its March 30, 2007 Report, and its modified recommendations, as listed in Staff's May 17, 2007 REPLY, can be summarized as follows:

Staff's March 30, 2007 Recommendation 1

- 1. By March 31, 2009, replace the categories and amount of piping as listed below:*
 - (a) 7.9 miles of pre-1983 piping operating at high pressure that is currently on the "Plastic Pipe Failures Master List".*
 - (b) 1.5 miles of pre-1983 piping operating at high pressure that was found to have a rock-dirt mix backfill around the pipe (1) during the "spot checks" and (2) during the exposed pipe inspections.*

The Staff expects City Utilities to continue their practice of replacing nearby or adjacent pipe segments that are beyond the specific piping in the same work order number because the piping was installed in the same time period and could likely have been installed using the same methods and in the same environment. Since the beginning of the program, this practice has resulted in replacing approximately 50% more piping than was specifically listed in the program.

Staff's Modification to the March 30, 2007 Recommendation 1

Staff recommends that City Utilities be allowed 2 years from the date of the Commission's order to complete the replacement of natural gas pipe described in 1(a) and 1(b) and be allowed 3 years from the date of the Commission's order to replace the main segments currently on the "Plastic Pipe Failures Master List" that are not pre-1983 high pressure pipe. As noted in Staff's March 30, 2007 filing and for the reasons stated in the first paragraph on page 3 of its May 10, 2007 filing, Staff fully expects that replacements would include adjacent segments at the approximate rate that have been occurring with previous replacements in this program (approximately 50%).

Staff's March 30, 2007 Recommendation 2

2. During 2007, all main segments where rock impingement leaks are found and where exposed pipe reports indicate the pipe is in a rock-dirt mix backfill shall be added to the "Plastic Pipe Failures Master List", and replaced by December 31, 2009.

Staff's Modification to the March 30, 2007 Recommendation 2

Staff recommends that, where post-1983 piping is found to have a rock-dirt mix backfill around the pipe, that this piping be replaced within 3 years of discovery of the rock-dirt mix backfill.

Staff's March 30, 2007 Recommendation 3

3. By May 1, 2007, provide the Staff with additional information concerning the backfill conditions on pre-1983 piping operating at high pressure that has been requested and any other information City Utilities believes would be helpful in the replacement prioritization of pre-1983 piping operating at high pressure.

Staff's Modification to the March 30, 2007 Recommendation 3

In discussions with City Utilities personnel prior to the March 30 filing, Staff indicated it wanted information involving plastic piping segments that, as a result of examination, were found not to be in contact with a rock-dirt mix backfill. This information would help facilitate the replacement prioritization. City Utilities should submit this information to Staff within 30 days of the Commission's order.

Additional Reporting

As discussed in the March 30, 2007 Status Report, City Utilities is currently conducting a leak survey over all pre-1983 piping operating at high pressure that is not included in the current annual leak surveys. Staff requested that the results of this survey be submitted to Staff as soon as the survey is completed and the results are compiled to determine if further enhancements need to be made to the program.

As recommended in the March 30, 2007 Status Report, Staff proposed that the next update report be filed during the first quarter of 2008 (March 31, 2008). The 2008 report would include a comprehensive status report detailing the results of the plastic pipe replacement program, pipe inspection reports, rock impingement leaks found, and results from leak surveys completed in calendar year 2007.

Staff further recommended that in addition to continuing the submission of semi-annual reports to Staff, City Utilities provide Staff with brief monthly updates indicating the number of rock impingement leaks found and replacements made during the month.

City Utilities' Response to Staff's Modifications

City Utilities indicated that it does not object to Staff's modified recommendations, with two exceptions:

First, City Utilities indicated in their May 17, 2007 filing that they have voluntarily replaced pipe that it was not required to replace by the Commission's previous orders. City Utilities further states that under the accelerated program, as proposed by Staff, that City Utilities will not be able to continue voluntary pipe replacements at the same rate (approximately 50%).

Second, City Utilities requested that the brief monthly updates, as proposed by Staff, be quarterly, instead of monthly.

STAFF REPLY

First, the Staff is of the firm belief that if the type of backfill around the plastic pipe has not been determined, the piping should be replaced. Staff used the "Plastic Pipe Failure Master List" as a logical starting point to replace pipe that was known to be in contact with rock, most of which experienced a leak due to rock impingement. While this replacement program has resulted in the replacement of piping that needed to be replaced, it has not, up to this point, resulted in a significant decrease in rock impingement leaks.

City Utilities has been voluntarily replacing pipe beyond the associated piping in the same work order number because the piping was installed in the same time period and could have been installed using the same methods and in the same environmental conditions (rock-dirt mix). This is a logical and sound practice, and has resulted in a significant amount of extra piping being replaced that could have been installed in a rock-dirt mix backfill. This follows one of the goals of the program, which is to replace piping that may be susceptible to a rock impingement leak (due to rock-dirt mix backfill) before a leak occurs.

Therefore, to address City Utilities' first objection directly, the Staff believes that a significant reduction in the replacement of nearby or adjacent pipe segments beyond the specific piping in the same work order number would be counter productive to the program.

The Staff reiterates that replacement of pipe on the "Plastic Pipe Failure Master List" is a logical starting point for this effort, as long as adjacent pipe segments, which are probably in a rock/dirt mix backfill, are also replaced as has been done with previous replacements in this program. This has historically resulted in a total replacement rate that is approximately 50% over the required replacement amount during the last 2-year period. The Staff does understand that there are differences in how plastic pipe installations were constructed, especially in subdivisions. Replacing nearby or adjacent segments of piping in some areas may not equal the historical 50% rate because there is less adjacent piping, or City Utilities may have verified the adjacent or adjoining segment is in "clean" backfill. However, the Staff expects City Utilities to continue the practice of replacement

of nearby and adjacent segments of piping of City Utilities' historical extra replacement rate of approximately 50%. Significant reductions from the historic 50% replacement rate would indicate the nearby and adjacent piping in contact with rock are not being replaced and Staff believes replacement of these segments of piping are essential in removing pipe before it develops a leak and therefore reduce the number of leaks found.

Addressing the second objection regarding reporting requirements, over the past several weeks City Utilities and Staff have discussed this issue and have agreed upon a form for reporting the updates and have agreed that the reporting will be on a monthly basis.

CONCLUSION

Staff believes City Utilities should follow the modifications to the recommendations contained in Staff's May 10, 2007 Reply with the understanding that City Utilities may not achieve the historical 50% rate of replacing nearby or adjacent piping beyond the associated piping in the same work order number. However, Staff believes that a significant reduction in the overall replacement rate of nearby and adjacent segments of piping (less than 40%) would decrease the effectiveness of the program. Staff also recommends that the current requirement from previous Commission orders for City Utilities to replace 4.2 miles of piping by August 16, 2007, be waived, if City Utilities follows Staff's May 10, 2007 modifications with the exception noted above.

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

In the Matter of an Investigation into City Utilities of)
Springfield Plastic Pipe Failures and the Adequacy of)
its Leak Survey Procedures, Installation Procedures)
and Replacement Criteria.)

Case No. GS-2004-0257

VERIFICATION

STATE OF MISSOURI)
)
COUNTY OF COLE)

I, Richard A. Fennel, Utility Technical Specialist II in the Commission's Energy – Safety/Engineering Department, of lawful age, on oath state: that I participated in the preparation of Staff's Memorandum that is being filed in the above case on June 18, 2007, consisting of five (5) pages to be presented in this case; that information in the Staff's Memorandum was given by City Utilities of Springfield; that I have true knowledge of the matters set forth in such Memorandum; and that such matters are true to the best of my knowledge and belief.

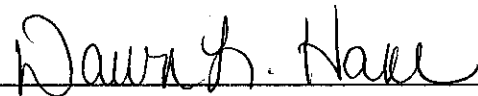


Richard A. Fennel

Subscribed and sworn to before me this 18th day of June, 2007.



DAWN L. HAKE
My Commission Expires
March 18, 2009
Cole County
Commission #05407643



NOTARY PUBLIC