

Exhibit No:
Issue: Effect of Plastic Pipe Retirements
on ISRS costs; Compliance with
Safety Requirements; Regulatory
Oversight
Witness: Craig R. Hoeflerlin
Type of Exhibit: Direct Testimony
Sponsoring Party: Spire Missouri Inc.
Case Nos.: GO-2016-0332, GO-2016-0333,
GO-2017-0201, GO-2017-0202,
GO-2018-0309, GO-2018-0310

Date Prepared: August 22, 2018

SPIRE MISSOURI INC.

**File Nos. GO-2016-0332, GO-2016-0333,
GO-2017-0201, GO-2017-0202,
GO-2018-0309, GO-2018-0310**

DIRECT TESTIMONY

OF

CRAIG R. HOEFERLIN

August 2018

TABLE OF CONTENTS

I. PURPOSE OF TESTIMONY 2

II. COST IMPACTS OF PLASTIC RETIREMENTS..... 3

III. COMPLIANCE WITH SAFETY REQUIREMENTS..... 7

IV. REGULATORY OVERSIGHT OF PROGRAMS..... 12

CRH-D1

DIRECT TESTIMONY OF CRAIG R. HOEFERLIN

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Craig R. Hoeflerlin, and my business address is 700 Market Street, St. Louis,
3 Missouri 63101.

4 **Q. WHAT IS YOUR PRESENT POSITION?**

5 A. I am presently employed by Spire Missouri (“Spire Missouri” or “Company”) as Vice
6 President – Operations Services.

7 **Q. PLEASE STATE HOW LONG YOU HAVE HELD YOUR POSITION AND**
8 **BRIEFLY DESCRIBE YOUR RESPONSIBILITIES.**

9 A. I was appointed to my current position on April 1, 2012. In this capacity, I manage the
10 Company’s engineering, pipeline safety and replacement programs, environmental
11 compliance, operations training, GIS and system planning, damage prevention, right of
12 way, standards and testing, and employee safety departments.

13 **Q. PLEASE DESCRIBE YOUR EXPERIENCE WITH SPIRE MISSOURI PRIOR TO**
14 **ASSUMING YOUR CURRENT POSITION.**

15 A. I have been continuously employed by Spire Missouri since June 1984. Prior to my current
16 position, I held a variety of positions in the Engineering, Gas Supply and Control, and
17 Construction and Maintenance Departments.

18 **Q. WHAT OTHER EXPERIENCE DO YOU HAVE WITH REGARDS TO PIPELINE**
19 **OPERATIONS AND SAFETY?**

20 A. I am a past chair and current member of the Operating Section Managing Committee for
21 the American Gas Association. In this capacity, I interacted with Federal Pipeline and
22 Hazardous Materials Administration (PHMSA) as well as the staff of the National

1 Transportation Safety Board. I am also a board member of the Common Ground Alliance
2 (CGA) representing the natural gas distribution industry. The CGA is a national
3 organization committed to preventing damage to underground infrastructure. Finally, I am
4 a past president and current member of the Missouri One Call Systems (MOCS) Board of
5 Directors,

6 **Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?**

7 A. I received a Bachelor of Science Degree in Chemical Engineering in 1984 from the
8 University of Missouri-Columbia.

9 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

10 A. Yes, I have. I previously submitted testimony in Case Nos. GR-98-374, GR-99-315, GR-
11 2001-629, GR-2013-0171, and GM-2017-0018.

12 **I. PURPOSE OF TESTIMONY**

13 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
14 **PROCEEDING?**

15 A. The purpose of my direct testimony is three-fold. First, I will sponsor and summarize the
16 additional analyses the Company has performed to further substantiate the impact of the
17 retirement of plastic facilities as part of its cast iron and unprotected steel replacement
18 programs on ISRS costs and charges. As I will discuss, these evaluations, like those
19 previously performed by Company witness Mark Lauber, clearly demonstrate that the
20 Company's practice of retiring plastic facilities where they cannot feasibly be reused has
21 reduced rather than increased the Company's ISRS costs and charges. Second, I will
22 explain how this practice has not only reduced the Company's ISRS costs and charges but
23 also allowed it to comply more effectively with federal and state safety requirements.

1 Third, I will discuss the comprehensive regulatory oversight that has been routinely
2 exercised over the Company's replacement programs over the past several years.

3 **II. COST IMPACTS OF PLASTIC RETIREMENTS**

4 **Q. HAVE YOU REVIEWED THE TESTIMONY PREVIOUSLY SUBMITTED BY**
5 **COMPANY WITNESS MARK LAUBER REGARDING THE IMPACT OF THE**
6 **COMPANY'S PRACTICE OF RETIRING PLASTIC FACILITIES WHERE THEY**
7 **CAN NOT BE FEASIBLY REUSED ON ITS ISRS COSTS AND CHARGES?**

8 A. Yes, I have.

9 **Q. DO YOU AGREE WITH MR. LAUBER'S CONCLUSION THAT THIS PRACTICE**
10 **HAS SERVED TO REDUCE RATHER THAN INCREASE THE COMPANY'S**
11 **ISRS COSTS AND CHARGES?**

12 A. Yes. That conclusion is certainly consistent with my own experience and knowledge of
13 the Company's cast iron and unprotected steel replacement programs, and the role that
14 retiring rather than reusing plastic facilities has played in reducing the cost of those
15 programs. In addition, I have had additional analyses performed of these impacts and they
16 fully confirm the results of Mr. Lauber's analysis.

17 **Q. WHAT KIND OF ADDITIONAL ANALYSES DID THE COMPANY PERFORM?**

18 A. The Company evaluated a variety of actual projects where plastic facilities were retired
19 rather than reused. This detailed evaluation included an assessment of what it would cost
20 to complete the project under the approach taken by the Company compared to what it
21 would have cost the Company to reuse rather than retire plastic facilities, since these are
22 the only two options that are practically available to the Company. In performing its
23 evaluation, the Company used the nine work orders that were handpicked by OPC in the

1 previous ISRS cases. Additionally, I put the work order addressed by Mark Lauber in the
2 recent Spire Missouri rate cases though this same detailed evaluation.

3 **Q. DID THESE EVALUATIONS INCLUDE THE IMPACTS OF RETIRING VERSUS**
4 **REUSING PLASTIC FACILITIES ON BOTH THE COST OF INSTALLING THE**
5 **MAINS AS WELL AS CONNECTING THE ASSOCIATED SERVICE LINES TO**
6 **THE MAIN?**

7 A. Yes. Since connecting service lines to the new main is an indispensable element to having
8 the main serve its intended function – namely providing natural gas service to our
9 customers – the evaluations included an assessment of both main and service line costs.

10 **Q. WHAT WERE THE RESULTS OF THE COMPANY’S ANALYSES?**

11 A. As shown by Schedule CRH-D1, which is attached to my direct testimony and incorporated
12 herein, we evaluated 10 projects that were undertaken by the Company during the ISRS
13 periods under consideration in this case. In each instance, we compared the design costs
14 that would be incurred to complete the projects by retiring the existing plastic facilities, to
15 what it would have cost had we attempted to reuse the existing plastic facilities.

16 **Q. WHAT DID THIS COMPARISON SHOW?**

17 A. Again, as shown by Schedule CRH-DI, the engineering analyses we performed showed
18 that the Company reduced, rather than increased, its replacement costs by retiring plastic
19 facilities where it was not operationally or economically feasible to reuse them. Stated
20 simply, the decision to retire the plastics facilities, rather than reuse them, drove a cost
21 reduction. Specifically, the Company reduced its ISRS costs on eight of the nine OPC-
22 picked projects by 1% to 5%. Only on one of those projects did it actually cost more (2%)
23 to retire rather than reuse the plastic facilities. When combined with the cost reductions

1 achieved on the one project analyzed by Company witness Lauber in his testimony, the
2 Company reduced its replacement costs by a net amount of \$230,000 or nearly 5% across
3 all ten projects by retiring rather than reusing the plastic facilities associated with these
4 projects.

5 **Q. IN YOUR OPINION, ARE THESE PROJECTS, AND ASSOCIATED COST**
6 **IMPACTS, REPRESENTATIVE OF THOSE EXPERIENCED BY THE**
7 **COMPANY ON ITS OTHER REPLACEMENT PROJECTS?**

8 A. Yes, they are very representative of the Company's other replacement projects and provide
9 a valid indication of the cost impacts that the Company would generally experience on
10 other projects. In fact, since the proportion of plastic facilities retired in the work orders
11 selected by OPC was equivalent to or greater than that experienced in the average work
12 order for ISRS projects, the analysis of these projects probably overstates in a modest way
13 the impact of plastic retirements on ISRS costs.

14 **Q. HOW THEN WOULD YOU ANSWER THE QUESTION POSITED BY THE**
15 **COMMISSION OF "WHAT COSTS, IF ANY, WERE RECOVERED THROUGH**
16 **ISRS CHARGES FOR THE REPLACEMENT OF PLASTIC COMPONENTS THAT**
17 **WERE NOT WORN OUT OR IN A DETERIORATED CONDITION"?**

18 A. Like Mr. Lauber, I think the only possible answer to that question is that there are no actual
19 costs that were, or are being, recovered through the Company's ISRS charges for the
20 replacement of plastic components that were not worn out or in a deteriorated condition.
21 In fact, our extensive evaluations show that the Company's retirement rather than reuse of
22 such plastic facilities has resulted in reduced ISRS costs and charges.

1 **Q. IF THE COMMISSION NEVERTHELESS CONCLUDED THAT IT WAS**
2 **APPROPRIATE TO EXCLUDE FROM THE COMPANY’S ISRS CHARGES THE**
3 **COST IMPACT OF RETIRING RATHER THAN REUSING THESE PLASTIC**
4 **FACILITIES HOW WOULD THAT AFFECT THE LEVEL OF SUCH CHARGES?**

5 A. Because they are negative costs, the Commission would have to increase the Company’s
6 ISRS charges above the level requested by the Company if it were to exclude the impacts.
7 This would not make sense for two reasons. First, the Company did not actually incur
8 those costs, but avoided them. Second, given the additional cost to reuse existing plastic,
9 the Company felt it would not be prudent to undertake a process that costs more, takes
10 longer, creates an inferior system design and utilizes hundreds of unnecessary connections
11 that raise integrity concerns.

12 **Q. NEVERTHELESS, HAVE YOU ATTEMPTED TO ESTIMATE HOW MUCH OF**
13 **AN INCREASE TO THE COMPANY’S ISRS CHARGES WOULD BE**
14 **NECESSARY TO EXCLUDE THESE COST IMPACTS?**

15 A. Based on an extrapolation of the cost impacts of the projects the Company has evaluated,
16 I estimate that the exclusion of cost impacts associated with the retirement rather than reuse
17 of plastic facilities would require a substantial increase in ISRS charges over and above the
18 amount that the Company has requested in these cases. Because the Company believes
19 that its customers should receive the full benefit of its efforts to conduct its replacement
20 programs in a cost-efficient manner, I have not tried to refine such an estimate. My primary
21 point, however, is that if the Commission or the Courts should construe the ISRS statute as
22 requiring the exclusion of the cost impacts associated with the retirement of certain plastic

1 facilities then increasing, rather than decreasing, the Company's ISRS charges would be
2 the only appropriate way to accomplish that objective

3 **Q. ARE THESE CAPITAL COST SAVINGS THE ONLY SAVINGS THAT**
4 **CUSTOMERS HAVE RECEIVED AS A RESULT OF THE WAY THE COMPANY**
5 **HAS IMPLEMENTED ITS REPLACEMENT PROGRAMS?**

6 A. By no means. In addition to the capital cost savings arising from bypassing plastic, the
7 acceleration of these replacement programs has also served to reduce maintenance
8 expenses associated with the monitoring and repair of leaks, gas cost expenses, tax
9 expenses and other similar costs. Such reductions have been flowed through to the
10 Company's customers as recently as Spire Missouri's last general rate case proceedings,
11 which concluded in March of this year.

12 **III. COMPLIANCE WITH SAFETY REQUIREMENTS**

13 **Q. HAS THE COMPANY'S APPROACH TO HOW IT CONDUCTS ITS**
14 **REPLACEMENT PROGRAMS RESULTED IN OTHER BENEFITS AS WELL?**

15 A. As Mr. Lauber testified and the Commission concluded in its previous Report and Order
16 in this proceeding, independent of the cost savings generated, the Company's approach to
17 replacing its cast iron and unprotected steel facilities has also resulted in a safer system and
18 permitted it to more effectively comply with various federal and state safety requirements.
19 I want to emphasize that while these are very important benefits, they are *additional*
20 *benefits* on top of the savings customers have received from the Company's practice of
21 retiring rather than reusing plastic facilities.

1 **Q. HOW HAS THE COMPANY’S APPROACH PERMITTED IT TO MORE**
2 **EFFECTIVELY COMPLY WITH APPLICABLE FEDERAL AND STATE**
3 **SAFETY REQUIREMENTS?**

4 A. The Company has always had a statutory duty to provide safe and adequate services and
5 facilities, and it views its replacement programs as providing a cost-effective way of
6 complying with this fundamental requirement. This Commission has also determined that
7 public safety requires replacement programs for certain facilities, most notably programs
8 for the replacement of cast iron and unprotected steel facilities – the very programs whose
9 costs are at issue in these proceedings. The requirement to have such replacement
10 programs can be found at 4 CSR 240-40.030(15)(D)&(E) of the Commission’s gas safety
11 rules – provisions that were implemented by the Commission following a number of fatal
12 natural gas explosions that occurred in Missouri in the late 80’s.

13 **Q. WERE THERE SUBSEQUENT EVENTS THAT RESULTED IN A RENEWED**
14 **EMPHASIS ON ACCELERATING THE PACE OF SUCH REPLACEMENT**
15 **PROGRAMS?**

16 A. Yes. In 2010, the Company’s engineering department began developing a comprehensive
17 cast iron replacement program with the goal of systematically replacing all cast iron.¹ Then
18 in early 2011, significant incidents involving cast iron pipe in Philadelphia and Allentown,
19 Pennsylvania brought intense scrutiny to utility replacement programs. These incidents
20 occurred in the aftermath of another natural gas incident in San Bruno, California in 2010
21 in which the rupture of a steel transmission line resulted in the deaths of eight people,
22 injuries to 58 other people, and the destruction of 38 homes. On March 28, 2011, Ray

¹ The Staff had earlier indicated that Staff would expect the Company to increase the pace of cast iron replacements once it neared the end of its copper service line replacement program.

1 LaHood, Secretary of the Department of Transportation, sent letters to Governors of each
2 state inviting them and others to a DOT Pipeline Safety Forum at DOT's Washington
3 headquarters in April to address these issues. I attended and participated in this forum.
4 Similarly, a letter was sent to utility commissioners urging them to review their State's
5 replacement plans (for cast iron and bare steel specifically) and "consider what would be
6 necessary to accelerate these plans." (March 31, 2011 letter from Cynthia Quarterman,
7 DOT Administrator) The stated goal of the DOT's April 2011 Pipeline Safety Forum was
8 "accelerating the rehabilitation, repair and replacement of critical pipeline infrastructure
9 with known integrity risks." Also in April 2011, the Commission issued a Pipeline Safety
10 Program Report which stated the following:

11 "Review of the integrity of older cast iron and steel natural gas pipeline facilities
12 needs to be completed with the possible goal of initiating specific long-term
13 replacement programs to eliminate significant mileage each year. Currently, there
14 are cast iron natural gas pipelines in service in Missouri that were installed well
15 over 100 years ago. Two Missouri natural gas operators have a combined total of
16 over 1,200 miles of cast iron in their distribution systems. The recommendation is
17 for Staff to have meetings with the utilities that have these facilities and discuss the
18 issue of systematic replacement of the aging infrastructure and the impact on rates.
19 There are integrity issues, maintenance issues, service reliability issues and rate
20 issues involved. The issues are related to safety, but there is also a policy decision
21 that needs to be evaluated to determine the implications of continuing to have cast
22 iron piping in distribution systems 30 years or 40 years from now. There should
23 also be a discussion as to how much it will cost to initiate replacement programs
24 for a specified number of years, and the rate implications of such programs. If the
25 current annual replacement rate for cast iron pipelines (the average over the last
26 three calendar years has been approximately 15 miles annually) continues, it would
27 take over 80 years to replace the cast iron pipelines in Missouri, which could result
28 in cast iron piping that is over 200 years old carrying natural gas. Also, older steel
29 pipelines have been involved in the two recent incidents in Missouri. The age of
30 the steel pipeline, by itself, may not be a determining factor. The age, as well as
31 other integrity factors would need to be included in the review. (Page 26)
32

33 In December 2011, PHMSA issued a White Paper that reviewed the programs available in
34 various states "to support efforts to accelerate the repair, rehabilitation and replacement of

1 high-risk infrastructure in pipeline systems...” PHMSA looked favorably upon Missouri’s
2 ISRS Statute as one of the programs available to protect the public “by ensuring the prompt
3 rehabilitation, repair or replacement of high-risk gas distribution infrastructure.” PHMSA
4 further urged State commissions to “accelerate the repair, rehabilitation and replacement
5 of high-risk pipeline infrastructure.” (PHMSA White Paper, p. 17). In March 2012,
6 PHMSA issued an Advisory Bulletin to gas operators and state pipeline safety
7 representatives on Cast Iron Pipe. The Bulletin urged pipeline operators like Spire
8 Missouri to conduct a comprehensive review of their cast iron distribution pipelines and
9 replacement programs, and accelerate the pipeline repair rehabilitation and replacement of
10 high risk pipelines. The Bulletin requested state agencies to consider enhancements to cast
11 iron replacement plans and programs. Finally, PHMSA established additional rules and
12 requirements for operators like Spire Missouri to follow to ensure the integrity of their
13 natural gas systems, called a Distribution Integrity Management Program, or DIMP.

14 **Q. WHAT IS THE SIGNIFICANCE OF THESE EVENTS IN TERMS OF THE**
15 **COMPANY’S REPLACEMENT PROGRAMS?**

16 **A.** Natural gas-related tragedies that occurred in 2010-11 caused the federal government
17 (DOT/PHMSA) to focus intense scrutiny on state governments and natural gas operators,
18 and state governments and their Safety Staffs applied pressure to utilities to accelerate
19 replacement programs. In Missouri, the Safety Staff urged Spire Missouri to accelerate its
20 safety replacement programs and looked with favor on the Company’s performance. Given
21 the need to replace cast iron and bare steel faster, the Company has done so in the best and
22 most cost-efficient manner possible. It seems inequitable to me that the same State that
23 used the ISRS Statute to encourage accelerated safety replacement would now disallow

1 those ISRS costs, especially when that accelerated replacement was done in such a cost-
2 efficient manner.

3 **Q WERE THESE ADDITIONAL REQUIREMENTS ULTIMATELY REFLECTED**
4 **IN THIS COMMISSION’S SAFETY RULES?**

5 A. Yes. Such requirements are reflected at 4 CSR 240-40.030(17), which require that natural
6 gas facility operators like Spire Missouri develop and implement system integrity plans.
7 In addition to mandating that operators develop processes for assessing the risks from leaks
8 and other failures on their system, the rules also require that they “[i]dentify and implement
9 measures to address [such] risks” and [d]etermine and implement measures designed to
10 reduce the risks from failure of its gas distribution pipeline.” 4 CSR 240-40.030(17)(D).4

11 **Q. DO THE COMPANY’S REPLACEMENT PROGRAMS, AS CURRENTLY**
12 **CONDUCTED, PERMIT THE COMPANY TO COMPLY WITH THESE SAFETY**
13 **REQUIREMENTS IN A COST-EFFECTIVE WAY?**

14 A. Absolutely. Our systematic replacement programs are a critical component of our
15 compliance with this requirement to identify and implement measures to reduce the risks
16 resulting from leaks and other potential failures of its gas distribution facilities. The
17 Company cites these programs as measures that have been taken to comply with these
18 requirements and an evaluation of leaks and other data shows that they have been very
19 effective in reducing the number of leaks experienced by the Company. In short, in
20 addition to being the lower cost method to replacing the cast iron and bare steel, the
21 Company’s implementation of its replacement programs has permitted it to comply more
22 effectively with other safety requirements that are designed to protect the health and

1 welfare of the Company's customers and the public generally and prevent horrific incidents
2 like those experienced in Pennsylvania.

3 **IV. REGULATORY OVERSIGHT OF PROGRAMS**

4 **Q. DO YOU BELIEVE THAT THIS COMMISSION HAS EXERCISED AN**
5 **ADEQUATE LEVEL OF REGULATORY OVERSIGHT REGARDING THE**
6 **COMPANY'S REPLACEMENT PROGRAMS AND HOW THEY ARE**
7 **CURRENTLY CONDUCTED?**

8 A. Without question I do. I know from personal experience that the Commission's Safety
9 Staff is actively and routinely involved in assessing the Company's compliance with
10 various safety requirements, including those relating to the structure and nature of its
11 replacement programs. Among other things, these activities include field audits, the review
12 of annual reports prepared and submitted by the Company and, where appropriate, the
13 submission of data requests or other requests for information. The Safety Staff is also
14 familiar with every major incident involving the Company's facilities and will propose
15 various measures for preventing such incidents in the future. I have never heard any
16 member of the Commission's Safety Staff express any reservations about the pace or
17 structure of the Company's replacement programs. In fact, the Staff continues to express
18 strong support for the manner in which the Company has been carrying out these programs.
19 I understand that Staff supported the Company's ISRS application in the cases that have
20 now been remanded to the Commission.

21 **Q. HAS OPC PARTICIPATED IN THIS ONGOING OVERSIGHT OF THE**
22 **COMPANY'S SAFETY PROGRAMS?**

1 A. OPC does not have the specific expertise that can be found in the Staff’s Safety
2 Department, so OPC should not be expected to opine on the technical or engineering
3 aspects of our safety replacement program. OPC has instead focused on arguments
4 intended to disallow ISRS costs. While Spire Missouri keeps safety top of mind, at the
5 same time, the Company shares OPC’s view that ISRS work should be done in a cost-
6 efficient manner. That’s why the Company chose the methodology of replacing plastic,
7 because it was apparent that it was costlier to reuse it. OPC has not been willing to
8 recognize Spire Missouri’s efforts to reduce ISRS costs in its zeal to artificially reduce
9 ISRS costs even further.

10 **Q. IN ADDITION TO THE COMMISSION’S SAFETY STAFF HAS THE**
11 **COMMISSION ITSELF ALSO PROVIDED REGULATORY OVERSIGHT OF**
12 **THE COMPANY’S REPLACEMENT PROGRAMS?**

13 A. Yes. In September 2012, I represented the Company in presenting details regarding the
14 nature, pace and structure of its replacement program directly to the Commission at its
15 agenda meeting. In acquiring Missouri Gas Energy (“MGE”) in 2013, the Company also
16 advised the Commission, Staff, OPC and other parties of its intent to accelerate the
17 replacement programs of MGE as it recently had for Laclede Gas. The Company’s follow-
18 through on that commitment was also prominently addressed by its main policy witness in
19 Spire Missouri’s most recent rate proceedings. Although I am aware that an extraordinary
20 number of issues were tried in that proceeding, I am unaware of any stakeholder who
21 expressed any concerns or made any recommendations that the Company should change
22 the pace of these replacement programs. In addition, since 2014, the Company has given

1 annual presentations to the Staff and OPC regarding MGE's 1 and 3 year plans for carrying
2 out these programs.

3 **Q. ARE THERE OTHER VENUES WHERE THE COMMISSION ITSELF HAS**
4 **EXERCISED REGULATORY OVERSIGHT?**

5 A. Yes. Every time the Company makes a filing to increase its ISRS charges, filings which
6 frequently occur twice a year, it provides detailed data regarding the cost, progress and
7 results of its various safety programs. Among other key data, this includes the footage of
8 mains and services replaced or retired, the footage of newly installed facilities, and the
9 costs incurred to carry out such activities. The Company also provides a specific
10 identification of the safety rules, mandated public improvement requirements or other
11 circumstances that make these costs eligible for ISRS recovery. The Commission Staff
12 audits each of the Company's ISRS filings, requests additional data, and issues a
13 recommendation. Other parties, like OPC, have also participated in these cases and made
14 their own recommendations. In the end, the Commission considers all of this information,
15 conducts any necessary hearings, and issues a Report and Order approving the Company's
16 ISRS charges, with any adjustments the parties believe are appropriate. The prudence of
17 the Company's replacement programs and associated costs is also subject to review in
18 subsequent rate case proceedings, which took place in 2013 (Spire East), 2014 (Spire West)
19 and 2017-18 (Spire East and West). As noted, there was no dispute as to the prudence of
20 these costs raised in the case – just whether there should be an adjustment for the
21 replacement of plastic facilities. Given this level of regulatory involvement, I strongly
22 believe that the pace, scope and nature of the Company's replacement programs has been

1 subject to a degree of regulatory oversight that far exceeds any replacement programs
2 previously undertaken by the Company.

3 **Q. DOES THIS COMPLETE YOUR DIRECT TESTIMONY?**

4 **A. Yes.**

Sample of ineligible Plastic Service line and Main Replacement Costs Included in the ISRS

| Description | Work order # | Total services | Replaced Plastic installed as recently as | Total Feet of Replaced Plastic | Approx cost to replace plastic | Approx cost to utilize plastic | % difference | Portion of Ineligible Plastic Replacements |
|------------------|--------------|----------------|---|--------------------------------|--------------------------------|--------------------------------|--------------|--|
| Baden 6C | 900836 | 161 | 2012 | 5,168' | \$679,000 | \$694,000 | -2% | 39% |
| Wellston 2F +AOR | 900546 | 135 | 2015 | 3,041' | \$495,000 | \$514,000 | -4% | 51% |
| Wellston 2F | 900547 | 184 | 2014 | 7,217' | \$632,000 | \$620,000 | 2% | 43% |
| Shaw AOR | 900983 | 134 | 2013 | 3,472' | \$536,000 | \$560,000 | -4% | 34% |
| Baden 7F | 900882 | 129 | 2016 | 1,642' | \$503,000 | \$509,000 | -1% | 33% |
| Maplewood 2D | 900609 | 66 | 2013 | 2,871' | \$285,000 | \$296,000 | -4% | 34% |
| Jefferson 7 | 900747 | 190 | 2015 | 2,537' | \$818,000 | \$857,000 | -5% | 18% |
| Hebert AOR | 901163 | 34 | 2012 | 1,549' | \$139,000 | \$145,000 | -4% | 38% |
| U City 1D | 901090 | 119 | 2015 | 1,162' | \$590,000 | \$595,000 | -1% | 21% |
| Southwest Area 1 | 901643 | 92 | | 2384' | \$281,000 | \$398,000 | -29% | |

| |
|-------------------|
| Ave total service |
| 124.4 |

| |
|------------|
| Average ft |
| 3104.3 |

| |
|----------------------|
| Average % Difference |
| -5% |

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

In the Matter of the Application of Laclede Gas)
Company to Change its Infrastructure System) **File No. GO-2016-0333**
Replacement Surcharge in its Laclede Gas Service)
Territory)

In the Matter of the Application of Laclede)
Gas Company to Change its Infrastructure) **File No. GO-2016-0332**
System Replacement Surcharge in its)
Missouri Gas Energy Service Territory)

In the Matter of the Application of Laclede Gas)
Company to Change its Infrastructure System) **File No. GO-2017-0201**
Replacement Surcharge in its Missouri Gas Energy)
Service Territory)

In the Matter of the Application of Laclede)
Gas Company to Change its Infrastructure) **File No. GO-2017-0202**
System Replacement Surcharge in its)
Laclede Gas Service Territory)

In the Matter of the Application of Spire Missouri)
Inc. to Establish an Infrastructure System) **File No. GO-2018-0309**
Replacement Surcharge in its Spire Missouri East)
Service Territory)

In the Matter of the Application of Spire Missouri)
Inc. to Establish an Infrastructure System) **File No. GO-2018-0310**
Replacement Surcharge in its Spire Missouri West)
Service Territory)

A F F I D A V I T

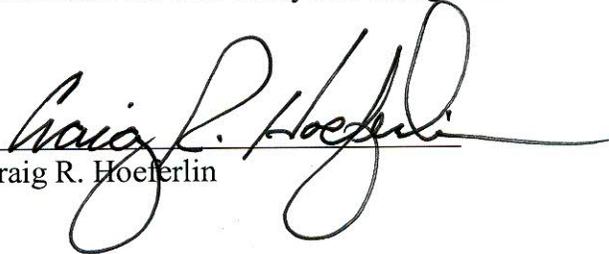
STATE OF MISSOURI)
) **SS.**
CITY OF ST. LOUIS)

Craig R. Hoeflerlin, of lawful age, being first duly sworn, deposes and states:

1. My name is Craig R. Hoeflerlin. I am Vice President Operations Services for Spire Missouri Inc. My business address is 700 Market St., St Louis, Missouri, 63101.

2. Attached hereto and made a part hereof for all purposes is my direct testimony on behalf of Spire Missouri Inc.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.


Craig R. Hoeflerlin

Subscribed and sworn to before me this 22nd day of August 2018.


Notary Public

**My Commission Expires:
July 18, 2020**

