



MISSOURI PUBLIC SERVICE COMMISSION

STAFF'S GAS INCIDENT REPORT

Appendix A

Spire Missouri Inc., d/b/a Spire Missouri West

Case No. GS-2021-0019

*Commission Staff Division
Safety Engineering Department
June 30, 2021 - Jefferson City, Missouri*

** Denotes Confidential Information **

**TABLE OF CONTENTS OF
STAFF’S GAS INCIDENT REPORT**

Appendix A

Spire Missouri Inc., d/b/a Spire Missouri West

Case No. GS-2021-0019

APPENDIX A: 1

DETAILED DISCUSSION OF FACTS AND STAFF’S INVESTIGATION..... 1

A. The Incident and Spire Emergency Response 1

B. Personal Injuries 4

C. Damages 5

D. Site Description 5

E. Missouri Public Service Commission Reporting Requirements 5

F. Missouri Public Service Commission Staff Investigation 6

G. Investigation of Failure..... 7

H. Distribution Integrity Management Program (“DIMP”) 9

I. Natural Gas System 10

J. Damage Prevention..... 11

K. Spire Oversight of Contractors 17

L. Operator Qualification 20

M. Compliance with Drug and Alcohol Testing Requirements..... 22

APPENDIX A:

DETAILED DISCUSSION OF FACTS AND STAFF'S INVESTIGATION

Note: The detailed information presented in Appendix A was obtained through Staff's on-site investigation, Spire Missouri Inc. West ("Spire" or "Company") records, information provided by Spire to Staff in responses to Staff Data Requests, and reports of other entities.¹ The information provided in the sections below summarizes Staff's investigation and the facts gathered during its investigation. To the extent that these facts were found to be necessary or helpful to address the incident cause and/or outcome, the facts are discussed in the body of Staff's Gas Incident Report; some of the facts that appear below may not be mentioned in the body of Staff's Gas Incident Report.

A. The Incident and Spire Emergency Response

Spire uses ** [REDACTED] ** ("Contract Locator"), a Kansas City, Missouri contract locate company, to respond to calls received through the Missouri One Call System (MOCS)² and to locate Spire's natural gas facilities.³ ** [REDACTED] ** is currently Spire's only contract locator.

On May 28, 2020 an employee of ** [REDACTED] ** ("the Excavator"), an excavating company on contract for the Missouri Department of Transportation, called MOCS to notify MOCS that it planned to excavate under the grass median and west shoulder of the northbound lanes of U.S. Route 169 south of Northwest Barry Road in Kansas City, Missouri on June 3, 2020.⁴

¹ Including Pipeline Data Mart [accessed through the United States Department of Transportation Pipeline and Hazardous Materials Safety Administration ("PHMSA") Portal].

² Missouri One Call System, Inc, is a nonprofit corporation providing a single point of contact at which member utilities may receive locate requests.

³ Spire Response to Staff Data Request 0003, 0019, and 0020.

⁴ Spire Response to Staff Data Request 0003, 0003.1.

On June 1, 2020 the Contract Locator responded by stating “Clear/No Conflict,” indicating that Spire had no facilities in the area to be excavated.⁵ ** [REDACTED] ** hereafter referred to as Contract Locator Employee A, and ** [REDACTED] ** hereafter referred to as Contract Locator Employee B are employees of the Contract Locator assigned to responding to the notice of planned excavation.⁶

At approximately 3:32 p.m. CDT⁷ on July 1, 2020, the Excavator, using auger equipment to install a new guard rail, damaged⁸ a 12 inch diameter gas distribution main which is part of Spire’s system.⁹ This pipeline runs east to west under U.S. Route 169 south of Northwest Barry Road in Kansas City, Missouri.¹⁰ The auger penetrated the edge of a protective casing and into the pipeline, resulting in an unplanned release of natural gas.¹¹

The main was operating at a pressure of approximately 128 pounds per square inch gauge (psig) at the time of the incident.¹² The maximum allowable operating pressure established by Spire for this main is 150 psig.¹³

At the time of damage, the pipeline facility was operating at approximately 128 psig¹⁴. The damage and subsequent natural gas release occurred on a section of pipeline that crosses beneath U.S. Route 169 Highway south of Northwest Barry Road in Kansas City, Missouri.¹⁵ The unplanned release

⁵ Spire Response to Staff Data Request 0003, 0023.1.

⁶ Spire Response to Staff Data Request 0021 indicated among other things that once a locate request has been sent by Missouri One Call to the contract locator and Company, the locate request is assigned to a contract locator by the contract supervisor. However, Spire clarified in response to Staff Data Request 0039.1 that the contract supervisor was assigned to locate request 201494113 and was assigned to covered task 1291: Locate Underground Pipelines.

⁷ All subsequent time references in this report are in CDT.

⁸ See Appendix C, Photographs 5 and 6.

⁹ Spire Response to Staff Data Request 0034.

¹⁰ Spire Response to Staff Data Request 0002. See Appendix C, Photograph 1.

¹¹ Spire Response to Staff Data Request 0002.

¹² Spire Response to Staff Data Request 0034.1.

¹³ Spire Response to Staff Data Request 0034.1.

¹⁴ Pounds per square inch gauge.

¹⁵ Spire Response to Staff Data Request 0002. See Appendix C, Photograph 1.

met the criteria for a federal incident, because¹⁶ Spire estimated property damage to be \$65,283 not including the estimated cost of natural gas loss.¹⁷

The Excavator notified a Spire Civic Improvement Inspector soon after the damage occurred. The Spire Civic Improvement Inspector notified an operations supervisor, who dispatched a serviceperson and a maintenance crew to the site at approximately 3:37 p.m. The serviceperson arrived on-site at 3:40 p.m., and the maintenance crew arrived at 3:45 p.m. The Kansas City Fire Department closed the remainder¹⁸ of U.S. Route 169 in the area of the incident at approximately 3:45 p.m. At approximately 4:00 p.m. the auger equipment was removed and Spire began excavating to further expose the damaged segment of pipeline. At 5:00 p.m. Spire attempted to stop the flow of gas to the damaged pipeline segment by closing the valve on the west side of U.S. Route 169, however the valve did not fully close and allowed natural gas to flow past.

Because Spire was unable to stop the flow of gas using a valve, Spire decided to stop the flow of natural gas to the leaking segment by installing temporary control fittings on the pipeline upstream and downstream of the damage. Spire began excavating to expose the pipeline on the west and east sides of the highway at 7:00 p.m. and 7:30 p.m., respectively, to install control fittings. By 7:40 p.m. the pipeline pressure decreased to 80 psig. At 8:00 p.m. the leaking pipeline

¹⁶ 20 C.S.R. 4240-40.020 (2)(D) defines a federal incident to be any of the following events: 1. An event that involves a release of gas from a pipeline and that results in one or more of the following consequences: A. A death or personal injury necessitating in-patient hospitalization; or B. Estimated property damage of fifty thousand dollars (\$50,000) or more, including loss to the operator and others, or both, but excluding the cost of gas lost; or C. Unintentional estimated gas loss of three (3) million cubic feet or more; or 2. An event that is significant, in the judgement of the operator, even though it did not meet the criteria of paragraph (2)(D)1.

¹⁷ Spire Response to Staff Data Request 0034.1.

¹⁸ One lane in the northbound direction was closed prior to the incident due to the work being completed by the Excavator.

was further exposed and a repair clamp¹⁹ was installed in an attempt to stop the leak, however the repair clamp did not fully stop the leaking natural gas.

Additionally, on July 1, 2020 Spire conducted a leakage survey of the area surrounding the incident site to check for the migration of natural gas and any additional leaks; no migration of natural gas nor additional leaks were identified.²⁰

On the next day, July 2, 2020, the excavations located on either side of U.S. Route 169 were used to hot tap and line stop²¹ the pipeline. The hot tapping and line stopping was completed on the west and east sides of U.S. Route 169 at 8:51 a.m. and 11:07 a.m., respectively, stopping the flow of natural gas to the leaking segment.

At 11:25 a.m. the band clamp was removed from the damaged section of pipeline, and at approximately 3:30 p.m. an encapsulation sleeve²² was installed on the damaged section of pipeline. By 5:40 p.m., the line stops were both removed and the pipeline was returned to service.

Staff Expert: Clinton L. Foster

B. Personal Injuries

According to the information Spire submitted in the completed PHMSA F 7100.1 Incident Report- Gas Distribution System report, there were no fatalities nor injuries as a result of this incident.²³

Staff Expert: Clinton L. Foster

¹⁹ A repair clamp is a type of repair equipment which fits around the pipeline and is tightened to “clamp” onto the pipeline. *See* Appendix C, Photographs 3 and 4.

²⁰ Spire Response to Staff Data Request 0002.

²¹ Hot tapping and line stopping a pipeline is a method to isolate a segment of a pipeline through the use of a specialized fitting(s) which can tap an active pipeline and insert a plug into the pipeline which stops the flow of product. *See* Appendix C, Photograph 2.

²² An encapsulation sleeve or weld-over sleeve is a type of repair equipment which is welded onto and around the pipeline.

²³ Spire Response to Staff Data Request 0034.1.

C. Damages

There were no reported public or non-operator damages. Spire's cost to repair damages to its facilities were estimated to be \$64,783, an estimated \$414 of natural gas was lost, and the estimated cost of Spire's emergency response was \$500. The total damages, not including gas loss, were \$65,283. The total estimated cost of this incident to Spire was \$65,697.²⁴

Staff Expert: Clinton L. Foster

D. Site Description

The damage to the pipeline occurred under the grass median and west shoulder of the northbound lanes of U.S. Route 169 south of Northwest Barry Road in Kansas City, Missouri.²⁵ In this area, U.S. Route 169 is a limited access, divided highway running north to south. Northwest Barry Road runs east to west, crossing U.S. Route 169 by an overpass.

Staff Expert: Clinton L. Foster

E. Missouri Public Service Commission Reporting Requirements

At approximately 5:24 p.m. on July 1, 2020, Spire confirmed an incident meeting the reporting requirements of 20 C.S.R. 4240-40.020(2)(C).²⁶ The incident reporting requirements in 20 C.S.R. 4240-40.020(3), (4), and (5) were completed as follows:

1. Spire made the initial telephone notification of a natural gas incident to a Staff member at approximately 6:08 p.m. on July 1, 2020.²⁷
2. Spire notified the United States Department of Transportation-Pipeline and Hazardous Materials Safety Administration (PHMSA) of a natural gas incident at approximately 7:00 p.m. on July 1, 2020 (NRC Report Number 1280866).²⁸

²⁴ Spire Response to Staff Data Request 0034.1.

²⁵ See Appendix B, Figures 1 and 2, and Appendix C, Photograph 1.

²⁶ Spire Response to Staff Data Request 0048.

²⁷ 20 C.S.R. 4240-40.020(4)(A) requires the operator to notify designated Commission personnel by telephone within two hours following discovery, unless emergency efforts to protect life and property would be hindered and then as soon thereafter as practicable, for each event which meets the natural gas incident reporting requirements.

²⁸ Spire Response to Staff Data Request 0034.1

3. Spire provided 48-hour confirmation of the incident to PHMSA at approximately 10:00 p.m. on July 5, 2020 (NRC Report Number 1281146).
4. USDOT-PHMSA form PHMSA F 7100.1 titled “Incident Report – Gas Distribution System” was completed by Spire and submitted to Staff and PHMSA on July 31, 2020.²⁹

Staff Expert: Greg A. Williams

F. Missouri Public Service Commission Staff Investigation

At the direction of the Missouri Public Service Commission Pipeline Safety Program Manager, one Safety Engineering Department Staff inspector was dispatched to the incident site on July 2, 2020. The inspector arrived on-site at 9:00 a.m. and observed Spire’s work to stop the flow of gas to the damaged portion of the pipeline, and the beginning of Spire’s work to repair the damaged portion of the pipeline. The Pipeline Safety Program Manager assigned three Safety Engineering Department inspectors to the incident investigation, including the inspector dispatched to the site of the incident, to conduct additional discovery. This additional discovery included submitting Data Requests to Spire and reviewing responses, and collecting information from additional sources.³⁰

Staff Expert: Clinton L. Foster

²⁹ Information provided by Spire’s July 31, 2020 e-mail to commission Staff and Spire Response to Staff Data Request 0034.

³⁰ Including Pipeline Data Mart [accessed through the PHMSAPortal].

the excavator shall make a relocate request before beginning the excavation.’ The excavator’s locate request was made on May 28, 2020 and the excavator stated that they did not commence work until June 23, 2020. Therefore, the excavator was required to ‘make a relocate request’ by law and did not.

In response to Staff Data Request 0005.2 Spire stated that the pipeline crossing was mapped 200 feet south of the actual crossing in Spire’s mapping records.

Further, Spire stated that “[t]he Company has determined that the mapping error was a contributing factor to the mis-locate but not the cause of the incident.”³⁸

Staff requested Spire’s explanation of the Contract Locator’s error that contributed to this incident. Spire stated that “The contract locator did not perform a visual scan of the area or confirm the location of the facility using conductive methods.”³⁹

Since the incident, Spire established the procedure ** [REDACTED] [REDACTED] ** to investigate reportable incidents on Spire facilities, which replaces ** [REDACTED] **⁴⁰ The new procedure includes similar requirements to the prior standard it replaces including, among other things, an investigation and attempt to determine the incident cause,⁴¹ and recommendations, if any, on corrective action needed to prevent a recurrence.⁴²

Staff requested Spire identify additional information the Company has identified as being needed as a result of this incident, and describe the Company’s plan for gaining this information over time. In response Spire stated:

³⁸ Spire Response to Staff Data Request 0005.3.

³⁹ Spire Response to Staff Data Request 0014.2, part A.

⁴⁰ Spire Response to Staff Data Request 0061.3.

⁴¹ Section 2.3.

⁴² Section 5.2.5.

As a result of this incident, the Company has identified that verifying highway crossing locations would be beneficial additional information to obtain on its system. The Company already has a process in place to report inaccurately mapped facilities and plans to further enhance this process during its upcoming Mobile Workforce System Implementation in Fall of 2020. After implementation, the system will show the field personnel their approximate location in relation to the mapped facilities. If the physical location of the facility is not accurate they will be able to submit a map correction condition to have the location updated.

Staff Expert: Clinton L. Foster

H. Distribution Integrity Management Program (“DIMP”)

Spire has one Distribution Integrity Management Program (DIMP) for its Missouri operations, and it is in compliance with the requirements of 20 C.S.R. 4240-40.030(17).⁴³

In its report for this incident provided to PHMSA,⁴⁴ Spire lists the apparent cause of the incident as “excavation damage.” “Excavation damage” is one of the threat categories that must be considered in an operator’s DIMP, and Spire ** [REDACTED]

[REDACTED] ** in its DIMP in effect at the time of the incident.⁴⁵ Spire also identified the damage as caused by a third party, i.e. by people or contractors not associated with it. Spire’s description of the incident includes the following statements:

The contractor was not working under a valid locate at the time of the damage. A locate was requested by the contractor on May 28th for the area being worked. The locator did not complete a proper locate at that time, and the original locate had expired before the work began and was not renewed.

⁴³ Staff conducts routine inspections of the DIMP Plans and DIMP implementation by the natural gas operators jurisdictional to the Commission. The most recent inspection of Spire’s DIMP was conducted in September 2020.

⁴⁴ 20 C.S.R. 4240-40.020(6)(A) (requiring that each operator must submit a federal incident report on Form PHMSA F 7100.1 as soon as practicable but not more than thirty (30) days after detection of an incident required to be reported under 20 C.S.R. 4240-40.020(3)). (Spire provided the initial incident report in Response to Staff Data Request 0034).

⁴⁵ Spire Response to Staff Data Request 0004 stated that the DIMP plan that was in effect on July 1, 2020, was revised on December 31, 2019. The Company provided Staff a copy of this plan on January 15, 2020. Staff notes that a copy of this DIMP was filed in Commission Case GE-2020-0295 (file date August 28, 2020).

Beginning with calendar year 2015, PHMSA requires utilities to categorize and report excavation damages according to the following apparent root causes in annual reports submitted to PHMSA:⁴⁶

One-Call Notification Practices Not Sufficient: Damages resulting from no notification made to the One-Call Center; or notification to one-call center made, but not sufficient; or wrong information provided to One Call Center.

Locating Practices Not Sufficient: Damages resulting from facility that could not be found or located; or facility marking or location not sufficient; or facility was not located or marked; or incorrect facility records/maps.

Excavation Practices Not Sufficient: Damages resulting from failure to maintain marks; or failure to support exposed facilities; or failure to use hand tools where required; or failure to test-hole (pot-hole); or improper backfilling practices; or failure to maintain clearance; or other insufficient excavation practices.

Other: Damages resulting from One-Call Center error; or abandoned facility; or deteriorated facility; or previous damage or data not collected; or other.

In the DIMP in effect for Spire at the time of the incident,⁴⁷ these apparent root causes are identified and tracked by Spire as “sub-threats” under the “primary threat” of excavation damage.

In response to Staff data request 0056, Spire stated that the subject incident will be included in the threat of Main Excavation Damage with the sub-threat of “Excavation Practices Not Sufficient” for the MO-West suburban region in Spire’s DIMP.

Staff Expert: Kathleen A. McNelis, PE

I. Natural Gas System

Natural gas service in Kansas City, Missouri is provided by Spire. The gas distribution main damaged in this incident was a twelve (12) inch diameter steel pipe⁴⁸, running east to west under U.S. Route 169 south of Northwest Barry Road in Kansas City, Missouri. The main was operating at a pressure of approximately 128 psig at the time of the incident.⁴⁹ The maximum allowable

⁴⁶ 20 C.S.R. 4240-40.020(7)(A) requires annual reports. Instructions for completing the annual reports from 2015 to present are included in Appendix D of this report.

⁴⁷ Spire Response to Staff Data Request 0004 stated that the DIMP plan that was in effect on July 1, 2020, was revised on December 31, 2019. The Company provided Staff a copy of this plan on January 15, 2020. Staff notes that a copy of this DIMP plan has been filed in Commission Case GE-2020-0295 (file date August 28, 2020).

⁴⁸ Spire Response to Staff Data Request 0034.1.

⁴⁹ Spire Response to Staff Data Request 0034.1.

operating pressure established by Spire for this main was 150psig.⁵⁰ The pipeline crossing the highway was ** [REDACTED] **⁵¹

Staff Expert: Clinton L. Foster

J. Damage Prevention

Table 1 displays the number of excavation damages on Spire distribution facilities for 2015-2019.⁵²

Table 1 - Excavation damages in Spire Missouri West distribution system operating area by apparent root cause 2015-2019

Year	Excavation Damage Apparent Root Cause				Total
	One-Call Notification Practices Not Sufficient	Locating Practices Not Sufficient	Excavation Practices Not Sufficient	Other	
2015	125	418	377	0	920
2016	152	349	311	9	821
2017	130	449	301	9	889
2018	159	297	364	50	870
2019	151	361	392	27	931
Totals (2015-2019)	717	1,874	1,745	95	4,431

Table 2 displays data about federal incidents attributed to Excavation Damage cause with root cause or contributing factor of locating practices not sufficient from Jan 1, 2015 through date of Staff Data Request 0046 (9/22/2020) in Spire Missouri West operating Area.

Table 2 - Federal Incidents attributed to Excavation Damage cause with root cause or contributing factor of locating practices not sufficient from Jan 1, 2015 through date of Staff Data Request 0046 (9/22/2020) in Spire Missouri West operating area

Date	Address	Property Damage	Property Damage Including Gas Loss	Gas Released (MCF)
3/13/2015	SEC of Rangeline & Newman Rd., Joplin, MO	\$13,152.00	\$41,708.00	5,436.00
6/9/2017	6512 E 155th St, Grandview, MO	\$155,284.00	\$157,082.00	309.85
7/1/2020	MO 169 Highway and Barry Road, Kansas City, MO	\$65,283.00	\$65,697.00	100.59
	Total between 1/1/2015 and 9/22/2020	\$233,719.00	\$264,487.00	5,846.44

⁵⁰ Spire Response to Staff Data Request 0034.1.

⁵¹ Spire Response to Staff Data Request 0002.

⁵² Spire Response to Staff Data Request 0044.

Table 3 displays data about Missouri state reportable incidents attributed to Excavation Damage cause with root cause or contributing factor of locating practices not sufficient from Jan 1, 2015 through date of Staff Data Request 0046 (9/22/2020) in Spire Missouri West operating Area.

Table 3 - Missouri state reportable incidents attributed to Excavation Damage cause with root cause or contributing factor of locating practices not sufficient from Jan 1, 2015 through date of Staff Data Request 0046 (9/22/2020) in Spire Missouri West operating

Date	Address	Property Damage	Property Damage Including Gas Loss	Gas Released (MCF)
3/30/2016	E. Gregory Blvd. & Oak St., Kansas City, MO	\$19,537.00	\$23,499.00	923.21
4/4/2016	100 N Broadway, Oak Grove, MO	\$16,928.00	\$19,766.00	661.36
7/29/2019	2015 W Foxwood Dr, Raymore, MO	\$24,564.00	\$25,628.00	215.42
7/6/2020	3250 N Progress Ave, Joplin, MO	\$15,517.00	\$19,434.00	950.74
Total between 1/1/2015 and 9/22/2020		\$76,546.00	\$88,327.00	2,750.73

Spire stated that ** [REDACTED] ⁵³ ** was the program in effect on May 28, 2020 and June 1, 2020 designed to prevent damage by excavation for the area where this incident occurred.⁵⁴ Spire provided a copy of this program to the Contract Locator on May 25, 2020.⁵⁵

Additionally, regarding Spire’s ** [REDACTED] **, Spire indicated that this standard did not include procedures for conducting a “visual scan of the area” or to “confirm the location of the facility using conductive methods” but was covered in the Contract Locator training slides during 2018.⁵⁶

⁵³ Spire Response to Staff Data Request 0018.1.

⁵⁴ Spire Response to Staff Data Request 0001, part b, indicated that “The contract locator received the locate request through Missouri One Call on May 28, 2020 at approximately 6:56 p.m. The contract locator responded to the locate as “Clear/No Conflict” on June 1, 2020 at 6:25 p.m.”

⁵⁵ Spire Response to Staff Data Request 0042.2.

⁵⁶ Spire Response to Staff Data Request 0014.3, 0024.2.

On July 1, 2020 Spire adopted a new damage prevention program titled ** [REDACTED] **, superseding ** [REDACTED] **. ⁵⁷ ** In response to Staff Data Request 0053.1, part 1), Spire stated that Section 6 of its ** [REDACTED] ** procedure states that “Spire marking standards should follow the current version of the Common Ground Alliance Best Practice Marking Standards.” Additionally, Spire indicated that these standards require a visual scan and electromagnetic locating when possible and the Company provides its standards to the Contract Locating Company.

Spire provided Staff with a copy of the annual mailer sent to excavators in 2019 and 2020, which is required by 20 C.S.R. 4240-40.030(12)(I)3.B.⁵⁸ The mailer provides, among other things, information about Spire’s natural gas system, describes how to make a request to locate underground utilities, and what to do in the event a natural gas pipeline is damaged. Additionally, Spire provided its 2019 and 2020 mailer distribution lists, and both lists included the Excavator.⁵⁹

Commission Rule 20 C.S.R. 4240-40.030(12)(I)3.B requires Spire to include in this mailer a copy of the applicable sections of Chapter 319, RSMo, or a summary of the provisions of Chapter 319, RSMo approved by designated commission personnel to excavators annually. Spire stated that it did not provide a copy of Chapter 319, RSMo to excavators and instead “has chosen to provide a summary of the provisions.”⁶⁰ Spire was unable to locate a copy of the approval of the summary by designated commission personnel. However, Spire has been utilizing the same summary for at least the last 15 years.⁶¹

⁵⁷ Spire Response to Staff Data Request 0014, 0018.

⁵⁸ Spire Response to Staff Data Request 0009.2, 0018.7.

⁵⁹ Spire Response to Staff Data Request 0018.2, 0018.9.

⁶⁰ Spire Response to Staff Data Request 0018.9.

⁶¹ Spire Response to Staff Data Request 0018.9.

** [REDACTED] **

describes that each on-site inspection should include:

- ** [REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]

[REDACTED]

[REDACTED] **

In response to Staff Data Request 0033.1, Spire provided its procedure in place to identify locations where inspections of planned excavations was necessary.⁶⁸

** [REDACTED]
[REDACTED]
[REDACTED] **

Additionally, Spire stated that ** [REDACTED]

[REDACTED] ** Rather, the Company's process for checking accuracy of locates applies to all tickets regardless of response types or location.

Spire provided the ** [REDACTED] ** in response to Staff Data Request 0033. In the report, Spire stated:

** [REDACTED]
[REDACTED]
[REDACTED] **

Since the time of the incident, Spire has updated this process. The new system is an automated notification system which alerts Spire in the event a notification of planned excavation is

⁶⁸ Note: Spire refers to the locations where inspections of planned excavations were necessary per 20 C.S.R. 4240-40.030(12)(I)4. as "high profile" locations.

received within an identified “high profile” area. In response to Staff Data Request 0033.1, Spire stated:

** [REDACTED]
[REDACTED]
[REDACTED] **

In response to Staff Data Request 0064, part 3), Spire provided its effectiveness evaluation of procedures utilized with respect to compliance with the requirements of 20 C.S.R. 4240-40.030(12)(I)4. following the July 1, 2020 incident. Spire’s response stated that:

Prior to the incident, the Company had begun assessing what constitutes a high profile locate ticket as part of its Ticket Management System rollout. The Company continues this process and has not made any revisions at this time.

Since the incident, Spire updated its damage prevention program from ** [REDACTED]

[REDACTED] ** to ** [REDACTED]

[REDACTED] ** provided in response to Staff Data Request 0014. The new program does not include procedures relating to Spire’s ** [REDACTED] **

Staff Experts: Clinton L. Foster and Greg A. Williams

K. Spire Oversight of Contractors

Staff requested copies of all Spire policies and procedures related to its oversight and inspection of the Contract Locator.⁶⁹ Spire responded that ** [REDACTED]

[REDACTED]

[REDACTED] **70

⁶⁹ Spire Response to Staff Data Request 0023.

⁷⁰ Spire Response to Staff Data Request 0023.

In addition to Spire's ** [REDACTED] **, Spire provides oversight as described in its contractual agreements with its contract locators.⁷¹ Spire provided a copy of its ** [REDACTED] ** to the Contract Locator in 2015.⁷²

According to the ** [REDACTED] ** Spire ** [REDACTED] **⁷³; [REDACTED]. ** For the timeliness and accuracy metrics, Spire tracks daily reports generated from MOCS that show total measurable tickets, pending tickets, on-time tickets, and late tickets. From this, daily percentages and monthly percentages are calculated. Spire tracks accuracy and effectiveness via quarterly quality reports that calculate billable locates and damages where the contract locators were at fault.⁷⁴ Spire's minimum standard for timeliness is 98% on time per month, and the minimum standard for accuracy is 99.97% accurate.⁷⁵ In general, ** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]⁷⁶ [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

⁷¹ Spire Response to Staff Data Request 0023, 0053.1.

⁷² Spire Response to Staff Data Request 0067.

⁷³ Spire's timeliness is defined as the percentage of excavation notices for which an on-site location is provided within 2 working days or by the mutually arranged date between the excavator and locator.

⁷⁴ Spire Response to Staff Data Request 0025.

⁷⁵ Spire Response to Staff Data Request 0026.

⁷⁶ Spire Response to Staff Data Request 0023 defines ** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] **

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[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] 80 **,

Spire began implementation of the Field Quality Audits in July 2015, and on April 1, 2018 it began ** [REDACTED] ** of the audited locate requests.⁸¹ Field audits are divided into two regions. In general, the North Region includes the city of Kansas City and all the facilities north of the Missouri River, and the South Region includes facilities outside of Kansas City south of the Missouri River.⁸² The criteria used to select audit locations may include but is not limited to: type of excavation work, past locator performance,

⁷⁷ Spire Response to Staff Data Request 0023 defines the Locate Accuracy Rate means a rate of locates physically performed per At-Fault Damage equal to, for the applicable Service Year quarter: (x) the total number of Locate Requests physically performed divided by (y) the total number of At-Fault Damages.

⁷⁸ Spire Response to Staff Data Request 0023.1, part 6, defines a “Service Year” to include the period of October 1 to September 30.

⁷⁹ ** [REDACTED]

[REDACTED]

[REDACTED] **

⁸⁰ Spire Response to Staff Data Request 0023.

⁸¹ Spire Response to Staff Data Request 0023.2, parts a) and b).

⁸² Spire Response to Staff Data Request 0023.1, part 7).

potential impact to facilities, locator tenure, and past excavator performance. The 100 locates are selected across all regions and would include locates completed as “Clear/No Conflict.”⁸³ During the period of January 2020 through and including June 2020, Spire conducted 62 field quality audits Inside KC and 140 field quality audits completed for Spire MOW (meaning Spire Missouri West).⁸⁴ If a locator fails a field quality audit, the failure is addressed with the Contract Locator by Spire, and the locate marks are corrected in the field as needed.⁸⁵

In response to a Staff request, Spire provided a detailed description of the quality control/audit process and a copy of Spire’s procedures for evaluating a locate request completed as a “Clear/No Conflict.”⁸⁶ Spire responded that “During an audit of a “Clear/No Conflict” locate, the Company verifies the response provided by the contract locator using Company installation records and other information provided by contract locator. The Company does not have a written procedure detailing this process.”

Staff Expert: Greg A. Williams

L. Operator Qualification

Spire provided copies of its ** [REDACTED] ** the Contract Locator’s ** [REDACTED] ** and Spire’s covered task list that was in effect at the time of the July 1, 2020 incident. Spire also indicated that contract locators performing work on its facilities are required to qualify under its Operator Qualification (OQ) plan.⁸⁷

⁸³ Spire Response to Staff Data Request 0023.1, part 14), and Spire Response to Staff Data Request 0028.

⁸⁴ Spire Response to Staff Data Request 0023.1, part 13.

⁸⁵ Spire Response to Staff Data Request 0040.1, part c).

⁸⁶ Spire Response to Staff Data Request 0023.1, part 1), indicates that a “Clear/No Conflict” response only applies when there are no Company facilities within the dig area.

⁸⁷ Spire Response to Staff Data Request 0040, 0040.2.

Spire verified that it and the Contract Locator were using the same Operator Qualification (OQ) program as the Company and that their OQ program was reviewed by Spire during January 2020.⁸⁸

In response to Staff Data Request 0041, part 1), Spire stated that “The covered task of 1291 – Locate Underground Pipelines is the only covered task that applies to contract locators that perform or manage locating of the Company’s natural gas facilities.” The Contract Locator provides its own operator qualification performance evaluations and training for its employees.⁸⁹

For training purposes, a copy of ** [REDACTED] ** was provided to ** [REDACTED] ** or the Contract Locator on May 25, 2020 and a copy of ** [REDACTED] ** was provided to the Contract Locator in 2015.⁹⁰

Spire indicated that the operator qualification evaluation methods used by the Contract Locator to evaluate covered task 1291 – Locate Underground Pipelines for Contract Locator employees included methods such as Written Exam, Oral Exam, Gas Locating Work Observation Checklist, Performance on the job, and on the job training.⁹¹ Spire’s response to Staff Data Request 0041.1 stated: ** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] **.

In response to Staff Data Request 0042, Spire provided its operator qualification records for both Contract Locator Employee A and ** [REDACTED] **, hereafter referred to as Contract Locator

⁸⁸ Spire Response to Staff Data Request 0060, part b).

⁸⁹ Spire Response to Staff Data Request 0041, part 2).

⁹⁰ Spire Response to Staff Data Request 0042.2, 0067.

⁹¹ Spire Response to Staff Data Request 0043.1, part c), subpart i).

Employee B who were initially assigned to Missouri One-Call locate ticket number 201494113 on May 28, 2020 for the area along Highway 169 and south of Northwest Barry Road in Kansas City, Missouri⁹². The qualification records included ** [REDACTED]

[REDACTED].**

The ** [REDACTED] ** for both Contract Locator Employee A and Contract Locator Employee B individuals included ** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]**. Spire also provided the Contract Locator qualification records conducted during May 2019 for both Contract Locator A and Contract Locator B related to their ** [REDACTED] ** training.⁹³

Staff Expert: Greg A. Williams

M. Compliance with Drug and Alcohol Testing Requirements

Spire provided copies of its substance abuse testing policy, which is titled ** [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED].**⁹⁴

Spire also provided documentation that Contract Locator Employees A and B were drug tested consistently with pre-employment requirements.⁹⁵ ** [REDACTED]

[REDACTED]

⁹² Spire Response to Staff Data Request 0002, 0020.

⁹³ Spire Response to Staff Data Request 0042.1.

⁹⁴ Spire Response to Staff Data Request 0035.

⁹⁵ Spire Response to Staff Data Request 0039.

