NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER

VIA ELECTRONIC MAIL TO: Suzanne.Sitherwood@spireenergy.com and Bob.Gardner@spireenergy.com

November 30, 2020

Ms. Suzanne Sitherwood
President and Chief Executive Officer
Spire Inc.
Spire Missouri Inc. East
700 Market Street
St. Louis, MO 63101
Suzanne.Sitherwood@spireenergy.com

CPF 3-2020-5024

Dear Ms. Sitherwood:

From February 5, 2019 to June 21, 2019, a representative of the Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected the Spire Inc. (Spire) Highly Volatile Liquid (HVL) pipeline system which contains propane and butane and is located in the St. Louis area (Missouri and Illinois).

As a result of the inspection, it is alleged that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (CFR). The items inspected and the probable violations are:

1. §195.402 Procedural manual for operations, maintenance, and emergencies.

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

Spire failed to follow its own manual of written procedures for conducting normal operations and maintenance activities as required by §195.402(a). Specifically, Spire failed to follow its operations and maintenance (O&M) NGL 2050 Procedure dated December 2017. The Procedure defines the valve inspection intervals as occurring in May and November. However, records reviewed by PHMSA during the inspection show that Spire conducted valve inspections outside of the defined intervals of May and November over multiple years. Below are the number of valve inspections that occurred outside of intervals defined in Spire's O&M NGL 2050 Procedure.

Year	# of valves outside of May and November
2015	63
2016	16
2017	30
2018	20

Accordingly, Spire failed to follow its O&M manual as required by §195.402(a).

2. §195.436 Security of facilities.

Each operator shall provide protection for each pumping station and breakout tank area and other exposed facility (such as scraper traps) from vandalism and unauthorized entry.

Spire failed to provide protection for each pumping station and breakout tank area and other exposed facility from vandalism and unauthorized entry in accordance with §195.436. Specifically, Spire failed to provide protection for the Catalan Station located in St. Louis, Missouri from vandalism and unauthorized entry. This location has a scraper trap (launcher) and other exposed facilities, measurement and vaporization. During the inspection, the PHMSA inspectors observed that the Catalan Station was fenced on three sides but the southeast side did not have a fence. During the inspection, PHMSA was informed by the operator, that fencing on the southeast side was taken out when a warehouse facility was built approximately 3 years ago. At the time of the inspection,

Spire had not replaced the fencing. Therefore, Spire failed to provide adequate protection for the Catalan Station from vandalism and unauthorized entry.

3. §195.440 Public awareness.

(a) . . .
(c) The operator must follow the general program recommendations, including baseline and supplemental requirements of API RP 1162, unless the operator provides justification in its program or procedural manual as to why compliance with all or certain provisions of the recommended practice is not practicable and not necessary for safety.

Spire failed to follow the general program recommendations of API RP 1162 in developing and implementing a written continuing public awareness program, and failing to provide justification in its program or procedural manual as to why compliance with certain provisions of the recommended practice was not practicable and not necessary for safety in accordance with §195.440(c). Specifically, Spire did not perform an effectiveness review inclusive of the HVL system as recommended by Section 8.4, "Measuring Program Effectiveness," and Section 8.5, "Summary of Baseline Evaluation Program," of API RP 1162. During the inspection, Spire was unable to provide any documentation demonstrating that it performed an effectiveness review for its HVL system or justification why an effectiveness review was not practicable and not necessary for safety.

4. §195.446 Control room management.

(a) . . .
(c) *Provide adequate information.* Each operator must provide its controllers with the information, tools, processes and procedures necessary for the controllers to carry out the roles and responsibilities the operator has defined by performing each of the following:
(1) . . .
(3) Test and verify an internal communication plan to provide adequate means for manual operation of the pipeline safely, at least once each calendar year, but at intervals not to exceed 15 months;

Spire failed to test and verify its internal communication plan to provide adequate means for manual operation of the pipeline safely, at least once each calendar year, but at intervals not to exceed 15 months as required by §195.446(c)(3). During the inspection, PHMSA reviewed the testing records of the internal communication plan. Spire produced testing records from 2015, 2017 and 2018; however, were unable to produce any testing record from 2016. The 2015 test record indicated a test was conducted on 11/13/2015 and the next available test record indicated a test was conducted on

5/10/2017, yet there was no test record for 2016. As such, Spire failed to test and verify its internal communication plan in calendar year 2016.

5. §195.452 Pipeline integrity management in high consequence areas.

(a) . . .
(b) What program and practices must operators use to manage pipeline integrity?
Each operator of a pipeline covered by this section must:
(1)…
(5) Implement and follow the program.

Spire failed to follow and implement its own IMP Plan. Specifically, Spire failed to measure the IMP's effectiveness as required by §195.452(f)(7) and Section 11.3 of the IMP Plan. Spire was unable to produce records demonstrating that it measured the effectiveness of its IMP Plan. Therefore, Spire violated §195.452(b)(5) by failing to follow and implement Section 11 (including specifics found in subsection 11.3) of its IMP Plan.

6. §195.452 Pipeline integrity management in high consequence areas.

(a) . . .
(f) *What are the elements of an integrity management program*? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:
(1) . . .
(3) An analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure (see paragraph (g) of this section);

Spire failed to integrate all available information concerning the integrity of the entire pipeline and the consequences of failure. As the time of the inspection, Spire was not integrating all available information as required by §195.452(f)(3) and Section 5.1 of Spire's Integrity Management Program (IMP) Plan, dated December 16, 2018.

A review of the current model in Spire's IMP Plan showed that the operator did not address or integrate all available information about known areas of alternating current interference. The operator also failed to address all required risk factions identified in 195.452(e) such as manufacturing information, seam type, local environmental factors that could affect the pipeline (e.g., corrosivity of soil, subsidence, climatic) and geo-technical hazards. In addition, Spire could neither confirm verbally nor produce records

at the time of the inspection to demonstrate whether or not low-frequency electric resistance weld pipe exists within the system. Therefore, Spire violated §195.452(f)(3) by failing to integrate all available information about the integrity of the entire pipeline and the consequences of failure.

7. **§195.452 Pipeline integrity management in high consequence areas.**

(a) . . .
(h) ***What actions must an operator take to address integrity issues?***
(1) ***General requirements.*** **An operator must take prompt action to address all anomalous conditions the operator discovers through the integrity assessment or information analysis. In addressing all conditions, an operator must evaluate all anomalous conditions and remediate those that could reduce a pipeline's integrity. An operator must be able to demonstrate that the remediation of the condition will ensure the condition is unlikely to pose a threat to the long-term integrity of the pipeline. An operator must comply with §195.422 when making a repair.**
(i) . . .
(ii) ***Long-term pressure reduction.*** **When a pressure reduction exceeds 365 days, the operator must notify PHMSA in accordance with paragraph (m) of this section and explain the reasons for the delay. An operator must also take further remedial action to ensure the safety of the pipeline.**

Spire failed to submit a notification to PHMSA as required by §195.452(h)(1)(ii) when a pressure reduction exceeded 365 days. A records review indicated a long-term pressure reduction as the result of an ILI investigation dig. Upon excavation of the line, a bolted repair clamp was discovered and the pressure was reduced in October 2017. The operator reduced the maximum operating pressure (MOP) of the line to 519 psig; prior to discovery of the anomaly, the MOP was 533 psig. The anomaly was evaluated, but at the time of PHMSA's inspection, Spire had not yet remediated the bolted repair clamp due to the location, which was more than 365 days after Spire had taken a pressure reduction. When the pressure reduction exceeded 365 days, Spire failed to notify PHMSA and explain the reasons for the delay. Therefore, Spire violated §195.452(h)(1)(ii).

8. **§195.452 Pipeline integrity management in high consequence areas.**

(a) . . .
(j) ***What is a continual process of evaluation and assessment to maintain a pipeline's integrity?***
(1) . . .

(3) ***Assessment intervals.*** **An operator must establish five-year intervals, not to exceed 68 months, for continually assessing the line pipe's integrity. An operator must base the assessment intervals on the risk the line pipe poses to the high consequence area to determine the priority for assessing the pipeline segments. An operator must establish the assessment intervals based on the factors specified in paragraph (e) of this section, the analysis of the results from the last integrity assessment, and the information analysis required by paragraph (g) of this section.**

Spire failed to establish the assessment schedule based on all risk factors that reflect the conditions on the pipeline segment. Spire currently considers the entire system to be a high consequence area (HCA) and has established a five-year interval for assessment. However, at the time of the inspection, records indicated that there is no integration of data into the risk model to determine the assessment interval. Furthermore, Spire did not follow the IMP per Section 8 Procedure for Continual Evaluation and Assessment of Pipeline Integrity. Specifically, this section stated "These reassessment intervals for evaluation will not normally exceed 5 years and will be based upon the associated risk to each pipeline segment." The risk model was initially run in 2004 and again in 2007 but records did not show that the risk model had been run since 2007. This was also confirmed verbally by the operator during the inspection. Therefore, Spire violated §195.452(j)(3) by failing to base its assessment intervals on the risks that the pipeline segment poses to an HCA.

9. §195.505 Qualification program.

Each operator shall have and follow a written qualification program. The program shall include provisions to:
(a) . . .
(b) Ensure through evaluation that individuals performing covered tasks are qualified;

Spire failed to ensure through evaluation that qualified individuals were performing covered tasks for the HVL system. At the time of the inspection, the supervisor for Spire's HVL system commented that the Spire MOE Operator Qualification (OQ) Program (incorporated into Spire's O&M manual) was not being utilized to qualify individuals performing covered tasks for the HVL system. Upon review of the Spire MOE OQ Program, PHMSA discovered that the following tasks were not identified in the OQ Program, but have been documented to have been completed on the HVL system in a review of Spire's records:

- Non-destructive testing (NDT)
- Hydrostatic Pressure testing
- Underwater leak survey
- Launching and Receiving in-line inspection (ILI) Tools
- Sonar

Spire also confirmed at the time of the inspection that individuals who performed the hydrotesting on the Catalan line segment as an integrity assessment method were not qualified for the covered task on July 13, 2015.

Proposed Civil Penalty

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed $218,647 per violation per day the violation persists, up to a maximum of $2,186,465 for a related series of violations. For violation occurring on or after November 27, 2018 and before July 31, 2019, the maximum penalty may not exceed $213,268 per violation per day, with a maximum penalty not to exceed $2,132,679. For violation occurring on or after November 2, 2015 and before November 27, 2018, the maximum penalty may not exceed $209,002 per violation per day, with a maximum penalty not to exceed $2,090,022. For violations occurring prior to November 2, 2015, the maximum penalty may not exceed $200,000 per violation per day, with a maximum penalty not to exceed $2,000,000 for a related series of violations. We have reviewed the circumstances and supporting documentation involved for the above probable violations and have recommended that you be preliminarily assessed a civil penalty of $139,800 as follows:

Item number	PENALTY
Item number 6	$46,600
Item number 7	$46,600
Item number 9	$46,600

Warning Items

With respect to items 1, 3, and 4, we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct these items. Failure to do so may result in additional enforcement action.

Proposed Compliance Order

With respect to items 2, 5, 6, 8, 9 pursuant to 49 U.S.C. § 60118, PHMSA proposes to issue a Compliance Order to Spire. Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Enforcement Proceedings*. Please refer to this document and note the response options. All material submit in response to this enforcement action may be made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an

explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b).

Following the receipt of this Notice, you have 30 days to submit written comments, or request a hearing under 49 CFR § 190.211. If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order. If you are responding to this Notice, we propose that you submit your correspondence to my office within 30 days from the receipt of this Notice. This period may be extended by written request for good cause.

In your correspondence on this matter, please refer to **CPF 3-2020-5024** and, for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,

Gregory A. Ochs
Director, Central Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Enforcement Proceedings*

cc: Mr. Bob Gardner, Director, Compliance & Pipeline Integrity, Spire Inc.,
Bob.Gardner@spireenergy.com

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Spire Energy (Spire) a Compliance Order incorporating the following remedial requirements to ensure the compliance of Spire with the pipeline safety regulations:

1. In regard to Item Number 2 of the Notice pertaining to the Catalan station, Spire must fully secure the site to provide protection from vandalism and unauthorized entry. A schedule for completion of securing the station must be submitted to the Director, Central Region within 30 days of the final order. Completion of this station security shall not exceed 6 months from the issuance of the final order.

2. In regard to Item Number 5 of the Notice pertaining to Spire's failure to perform an effectiveness review of the IMP program, Spire must measure the program's effectiveness. A schedule for effectiveness review of the IMP program is to be submitted to the Director, Central Region within 30 days of the final order. Completion of this review shall not exceed 6 months from the issuance of the final order.

3. In regard to Item Number 6 of the Notice pertaining to Spire's failure to integrate all identified threats into the risk model, Spire must integrate all available information about the integrity of the entire pipeline and the consequences of a failure. A schedule for completion of data integration into the risk model is to be submitted to the Director, Central Region within 30 days of the final order. Completion of this integration shall not exceed 6 months from the issuance of the final order.

4. In regard to Item Number 8 of the Notice pertaining to establishment of the assessment schedule, Spire must establish the assessment schedule based on all risk factors that reflect the conditions on the pipeline segment. A schedule for the assessment based on all risk factors that reflect the conditions on the pipeline segment(s) is to be submitted to the Director, Central Region within 30 days of the final order. Completion of the assessment schedule based on all risk factors shall not exceed 6 months from the issuance of the final order.

5. In regard to Item Number 9 of the Notice pertaining to identification of covered tasks, Spire shall revise the OQ program to address the HVL pipeline and associated covered tasks. Spire will follow and ensure through evaluation that individuals performing covered tasks are qualified per the revised OQ plan that addresses HVL pipelines. This revised OQ plan will be sent to the Director, Central Region. Completion of this reviwed OQ plan shall not exceed 6 months from the issuance of the final order.

6. It is requested (not mandated) that Spire Inc. maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Greggory A. Ochs, Director, Central Region, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.