



Spire Inc.
605 Richard Arrington Jr Blvd N
Birmingham, AL 35203

February 2, 2024

Mr. Dustin Hubbard
Director, Western Region
Pipeline and Hazardous Materials Safety Administration

RE: CPF 5-2023-047-NOA
Spire Clear Creek Storage Company, LLC – OPID 39934

Dear Mr. Hubbard,

Spire has completed its review of the items listed in your referenced NOA letter from November 2, 2023. In the following list, Spire has made responses to each of the item with the adjustments made to the Control Room Management Plan (CRM) for Clear Creek facility. An updated copy of the CRM plan is also attached for your review.

If you have any questions or need additional information, please feel free to contact me at (205) 337-1337.

Sincerely,

A handwritten signature in black ink, appearing to read "Randy Wilson", written in a cursive style.

Randy Wilson
Director, Pipeline and System Integrity

CC: Mr. Jason Dunphy
Mr. Craig Hoferlin

1. **§ 192.605 Procedural manual for operations, maintenance, and emergencies.**

(a) *General.* Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year...

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the Clear Creek Control Room Management Manual (CRMM) showed that it did not have a process to require that the fatigue education and training program be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year.

Therefore, Clear Creek must amend its CRMM to provide for the annual review of the fatigue education and training program.

Spire Response: Spire has revised its Control Room Management Plan (CRM) to include the requirement of an annual review of fatigue education and training in Section 6.3 Fatigue Mitigation Education.

2. **§ 192.631 Control room management.**

(a) . . .

(b) *Roles and responsibilities.* Each operator must define the roles and responsibilities of a controller during normal, abnormal, and emergency operating conditions.

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM demonstrated that it did not adequately describe the physical domain of responsibility of the controller. CRMM section 1.5 specified that only the North/South Loop – 8" & 6" and Well to Plant Lines – 4" & 6" pipelines were covered by the CRMM. However, during the PHMSA inspection, Clear Creek informed PHMSA that the controller also monitors and controls other equipment and facilities on site, such as the processing plant and the property within the fence line. The PHMSA inspector also observed a controller monitoring locations outside of the North/South Loop – 8" & 6" and Well to Plant lines – 4" & 6". However, upon PHMSA review of the CRMM, it became evident that the CRMM failed to include those roles and responsibilities of the controller.

Therefore, Clear Creek must amend its CRMM to fully describe the controller's roles and physical domain of responsibility for the entire site.

Spire Response: Spire has revised its Control Room Management Plan (CRM) to describe the controller's roles and physical domain of responsibility in Section 4.1.1 Controller's Domain of Responsibility.

3. § 192.631 Control room management.

(a) ...

(b) ***Roles and responsibilities.*** Each operator must define the roles and responsibilities of a controller during normal, abnormal, and emergency operating conditions. To provide for a controller's prompt and appropriate response to operating conditions, an operator must define each of the following:

(1) ...

(3) **A controller's role during an emergency, even if the controller is not the first to detect the emergency, including the controller's responsibility to take specific actions and to communicate with others;**

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM demonstrated that it did not have a process to describe non-process emergencies (i.e. natural disasters, etc.) that require the evacuation of the control room.

Therefore, Clear Creek must amend its CRMM to address non-process emergencies that require evacuation of the control room.

Spire Response: Spire has revised its Control Room Management Plan (CRM) to address non-process emergencies requiring evacuation of the control room in Section 4.5.3 Emergency Operating Conditions.

4. § 192.631 Control room management.

(a) ...

(b) ***Roles and responsibilities.*** Each operator must define the roles and responsibilities of a controller during normal, abnormal, and emergency operating conditions. To provide for a controller's prompt and appropriate response to operating conditions, an operator must define each of the following:

(1) ...

(4) **A method of recording controller shift-changes and any hand-over of responsibility between controllers;**

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of CRMM established it did not have a process to describe the circumstances when the controller leaves the control room console unattended. Clear Creek controllers have duties that regularly take them away from the control room console and out into the plant facilities.

Therefore, Clear Creek must amend its CRMM to include the circumstances when the controller leaves the control room console unattended.

Spire Response: Spire has revised its Control Room Management Plan (CRM) to address circumstances when the control room is unattended in Section 4.5.3 Emergency Operating Conditions and Section 5.8 Leaving the Console Unattended. All telemetry and control points are fail-safe, and this information has been added to the CRM for these conditions.

5. § 192.631 Control room management.

(a) ...

(b) ***Roles and responsibilities.*** Each operator must define the roles and responsibilities of a controller during normal, abnormal, and emergency operating conditions. To provide for a controller's prompt and appropriate response to operating conditions, an operator must define each of the following:

(1) ...

(5) **The roles, responsibilities and qualifications of others with the authority to direct or supersede the specific technical actions of a controller.**

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM provided that it did not describe who had the authority to direct or supersede the specific technical actions of a controller.

Therefore, Clear Creek must amend its CRMM to include a description of who has the authority to direct or supersede the specific technical actions of a controller.

Spire Response: Spire has revised its Control Room Management Plan (CRM) to describe the authorities for directing or superseding specific controller technical actions in Section 4.4 Define Authority and Qualifications of others to Direct or Supersede the Technical Actions of Controllers.

6. § 192.631 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) **Implement sections 1, 4, 8, 9, 11.1, and 11.3 of API RP 1165 (incorporated by reference, see § 192.7) whenever a SCADA system is added, expanded or replaced, unless the operator demonstrates that certain provisions of sections 1, 4, 8, 9, 11.1, and 11.3 of API RP 1165 are not practical for the SCADA system used;**

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM demonstrated that the manual did not have a process for the implementation of API RP 1165 as required by § 192.631(c)(1) whenever a SCADA system is added, expanded or replaced.

Therefore, Clear Creek must amend its CRMM to include procedures for implementation of sections 1, 4, 8, 9, 11.1, and 11.3 of API RP 1165 whenever a SCADA system is added, expanded or replaced or include an explanation providing for why certain required provisions are not practical for the SCADA system used.

Spire Response: Spire has revised its Control Room Management Plan (CRM) for SCADA management in Section 8.0 Change Management.

7. § 192.631 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) ...

(2) Conduct a point-to-point verification between SCADA displays and related field equipment when field equipment is added or moved and when other changes that affect pipeline safety are made to field equipment or SCADA displays;

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of CRMM found that the manual did not define and identify the circumstances which require a point-to-point verification or the method by which to document the point-to-point verification.

Therefore, Clear Creek must amend its CRMM to include a process of defining and identifying the circumstances which require a point-to-point verification.

Spire Response: Spire has revised its Control Room Management Plan (CRM) to define procedures for point-to-point verification. The following sections address this item:

5.3 Point-to-Point Verification

5.4 Point-to-Point Procedure

5.5 Procedure for Checking Points

8. § 192.631 Control room management.

(a) ...

(g) *Operating experience.* Each operator must assure that lessons learned from its operating experience are incorporated, as appropriate, into its control room

management procedures by performing each of the following:

(1) Review incidents that must be reported pursuant to 49 CFR part 191 to determine if control room actions contributed to the event and, if so, correct, where necessary, deficiencies related to:

- (i) Controller fatigue;**
- (ii) Field equipment;**
- (iii) The operation of any relief device;**
- (iv) Procedures;**
- (v) SCADA system configuration; and**
- (vi) SCADA system performance.**

(2) Include lessons learned from the operator's experience in the training program required by this section.

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM demonstrated that the manual did not include a procedure requiring training of controllers, on lessons learned from reportable incidents/accidents, near misses, leaks, operational and maintenance errors, and other operating experiences.

Clear Creek must amend its CRMM to include a process incorporating lessons learned from its operating experience, as appropriate.

Spire Response: Spire has revised its Control Room Management Plan (CRM) for SCADA management in Section 9.2 Lessons Learned.

9. § 192.631 Control room management.

(a) ...

(h) Training. Each operator must establish a controller training program and review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities defined by the operator.

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM found that it did not have a process to review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months.

Clear Creek must amend its CRMM to establish and review a controller training program to safely carry out the roles and responsibilities defined by the operator.

Spire Response: Spire has revised its Control Room Management Plan (CRM) for a controller training program in Section 10.0 Training.

10. § 192.631 Control room management.

(a)

(h) **Training.** Each operator must establish a controller training program and review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities defined by the operator. In addition, the training program must include the following elements:

(1) **Responding to abnormal operating conditions likely to occur simultaneously or in sequence;**

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM found that the controller training program did not include a process for providing controller training on responding to abnormal operating conditions likely to occur simultaneously or in sequence.

Therefore, Clear Creek must amend its CRMM to provide training for responding to abnormal operating conditions likely to occur simultaneously or in sequence.

Spire Response: Spire has revised its Control Room Management Plan (CRM) for training on AOC's in Sections 10.4 Response to AOC's and 10.9 Team Training.

11. § 192.631 Control room management.

(a)

(h) **Training.** Each operator must establish a controller training program and review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities defined by the operator. In addition, the training program must include the following elements:

(1)

(3) **Training controllers on their responsibilities for communication under the operator's emergency response procedures; ...**

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM controller training program demonstrated that it did not have a process to provide controllers training on their responsibilities for communication under the operator's emergency response procedures.

Therefore, Clear Creek must amend its CRMM to include a process for providing training to controllers on their responsibilities for communication under the operator's emergency response procedures.

Spire Response: Spire has revised its Control Room Management Plan (CRM) for training on communication in Section 5.6 Internal Communication Plan.

12. § 192.631 Control room management.

(a)

(h) *Training.* Each operator must establish a controller training program and review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities defined by the operator. In addition, the training program must include the following elements:

(1)

(4) Training that will provide a controller a working knowledge of the pipeline system, especially during the development of abnormal operating conditions; ...

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM found that it did not have a process to provide controllers a working knowledge of the pipeline system and facilities, especially during the development of abnormal operating conditions.

Clear Creek must amend its CRMM to incorporate a process for providing controllers a working knowledge of the pipeline system and facilities.

Spire Response: Spire has revised its Control Room Management Plan (CRM) for providing controllers a working knowledge of the pipeline system and facilities in Section 5.0 Provide Adequate Information.

13. § 192.631 Control room management.

(a)

(h) *Training.* Each operator must establish a controller training program and review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities defined by the operator. In addition, the training program must include the following elements:

(1)

(5) For pipeline operating setups that are periodically, but infrequently used, providing an opportunity for controllers to review relevant procedures in advance of their application;

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM found that it did not have a process to provide controllers an opportunity to review relevant procedures for pipeline operating setups that are periodically, but infrequently used, in advance of their application.

Therefore, Clear Creek must amend its CRMM to provide controllers an opportunity to review procedures for infrequently used pipeline operating setups in advance of their application.

Spire Response: Spire has revised its Control Room Management Plan (CRM) for providing controllers an opportunity to review procedures for infrequently used setups in Section 10.7 Periodic Procedures.

14. § 192.631 Control room management.

(a)

(h) *Training.* Each operator must establish a controller training program and review the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. An operator's program must provide for training each controller to carry out the roles and responsibilities defined by the operator. In addition, the training program must include the following elements:

(1)

(6) Control room team training and exercises that include both controllers and other individuals, defined by the operator, who would reasonably be expected to operationally collaborate with controllers (control room personnel) during normal, abnormal or emergency situations. Operators must comply with the team training requirements under this paragraph by no later than January 23, 2018.

Clear Creek's procedures were inadequate to ensure the safe operation of a pipeline facility. Specifically, during inspection, a review of the CRMM found that it did not contain team training procedures as required pursuant to § 192.631(h)(6).

Therefore, Clear Creek must amend its CRMM to include procedures for control room team training and exercises that include both controllers and other individuals, defined by the operator, who would reasonably be expected to operationally collaborate with controllers (control room personnel) during normal, abnormal, or emergency situations.

Spire Response: Spire has revised its Control Room Management Plan (CRM) for team training exercises in Section 10.9 Team Training.