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April 12, 2022

Sean Mayo
Pipeline Safety Director
Washington Utilities and Transportation Commission
621 Woodland Square Loop S.E.
Lacey, WA 98503

**RE: 2021 Natural Gas Standard Inspection – PSE Control Room Management
– Insp. No. 8294**

Dear Mr. Mayo:

Pursuant to PSE's response dated November 8, 2021 to the referenced inspection, PSE is providing information regarding the completion of commitments related to the findings from the the 2021 Control Room Management audit. Below are the findings from the audit and actions PSE has taken to address them.

Probable Violation

1. CFR §192.631 – Control Room Management (CRM).

(e)(1-5) *Alarm management.* Each operator using a SCADA system must have a written alarm management plan to provide for effective controller response to alarms.

Finding – The 2018 PSE Control Room Management Plan (CRMP) fails to address how deficiencies discovered during the implementation of §192.631(e)(1-5) will be resolved.

On December 30, 2021, the Gas Operations Dashboard, which is published to the Gas Operations staff monthly, was updated. The Dashboard will display an itemized list of deficiencies, including false alarms or “Bad Actors”, prioritization for remediation, date of discovery, scheduled and actual completion date for corrective actions, and status update using red, yellow, green stop light indicators, after the CRMP is approved and published (March 17, 2022).

On March 17, 2022, the 7700.5000 Gas Control Alarm Management Plan was updated to include the process of addressing deficiencies discovered during Alarm Management Effectiveness review, including the guideline for prioritization and scheduling of corrective action.

2. CFR §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. This manual must be prepared

before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

Finding – PSE failed to follow their procedures for following up on action items from annual backup SCADA tests. No records were available of follow up on these issues with the backup SCADA tests.

On March 16, 2022, PSE updated the Backup Control Center (BUCC) Form 6095, requiring a work flow for Supervisor Gas Control to review and ensure that all necessary action items from the back up test are addressed and attachments are included to show completion of action items. The BUCC form attachments are saved on the Gas Control team's Sharepoint site. On March 17, 2022, the language in CRMP 7700.3400 Backup Gas Control Center Testing Procedure was updated to include record retention requirement of completed BUCC resolutions.

Areas of Concern

1. CFR §192.631 – Control Room Management.

(b) (1) *Roles and responsibilities.* A controller's authority and responsibility to make decisions and take actions during normal operations.

Finding – The 2018 PSE Control Room Management Plan fails to address the importance of remaining at the console and staying attentive once critical commands have been executed.

On March 17, 2022, CRMP 7700.2000 Gas Controller Roles and Responsibilities Section 3.3 was updated to emphasize that Controllers remain at the console until critical command has been completed. In January 2022, training started, with training documentation updated and test questions added to the tri-annual refresher OQ test. In addition, roles and responsibilities are communicated during the Gas Control team's monthly meetings.

2. CFR §192.631 – Control Room Management.

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

On October 20, 2021, Gas Control updated the Gas Control Training Module 4.1.2 to include the following language: *While gas controller may consult with and gather information from subject matter experts before taking technical actions, Gas Controllers are responsible for, and have final authority over, the technical actions in the control room.*

Additionally, this topic was discussed during regular monthly team safety meetings.

3. CFR §192.631 – Control Room Management

(c) *Provide adequate information.*

(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.

IT updated the SCADA display so that the color of the dynamic device changes between green or red to indicate the status, per PSE's SCADA Design Guide standard following API RP 1165. On November 23, 2021, PSE tested the control valves successfully: valve turned red when closed and green when open. PSE also performed point to point testing per PSE's point to point actions table.

4. CFR §192.631 – Control Room Management

(c) (2) *Provide adequate information.* 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.

On March 17, 2022, PSE updated 7700.5000 Gas Control Alarm Management Plan to include new responsibilities to the Manager Engineering and Manager Gas System Integrity for establishing safety-related alarms, requirements to prioritize alarm deficiencies, and clarification on actions to be taken if alarm deficiencies are not corrected within the specified time frame.

5 & 6. CFR §192.631 – Control Room Management

(d) (4) *Fatigue mitigation.* Establish a maximum limit on controller hours-of-service, which may provide for an emergency deviation from the maximum limit if necessary for the safe operation of a pipeline facility.

On March 14, 2022, the Fatigue Risk Management System Plan and CRMP 7700.4000 Fatigue Management procedure were updated to include language on specific fatigue mitigation countermeasures, such as the need for Gas Controllers to take an hour break per shift.

7. CFR §192.631 – Control Room Management

(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.

Finding – The 2020 PSE Gas Control Training Manual contains a different review date for each individual module that has been reviewed. However, it was not clear if this date was the annual review or the date of original approval of the individual module. Records must demonstrate that a review occurs at least once each calendar year, with intervals not to exceed 15 months between consecutive reviews. Operators are expected to identify improvements, or document that no improvements are necessary.

On February 7, 2022, the Gas Control Training manual was updated to include a revision date, dates on pages were updated, and a change log of revisions has been kept.

Let me know if you would like further information and I can set up a meeting to review the information with you. PSE appreciates the opportunity to continue to work with Staff on this resolution. Should you have any additional questions, please call me at 425-247-6751.

Sincerely,

Zak Mohamed

Zak Mohamed
Manager Compliance and Quality Management

cc:

Troy Hutson, Harry Shapiro