



Tom Worley
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**RESPONSE TO NOTICE OF PROBABLE VIOLATION
And
PROPOSED COMPLIANCE ORDER**

VIA ELECTRONIC MAIL TO MR. DUSTIN HUBBARD:

August 17, 2023

Mr. Dustin Hubbard
U.S. Department of Transportation
Pipeline and Hazardous Materials Safety Administration
12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

Dear Mr. Hubbard:

Please find below Black Hills Energy's response to the PHMSA CRM audit conducted at the Black Hills Energy Council Bluffs office between April 25 and April 29, 2022.

Finding 1:

Black Hills failed to implement the required sections of API RP 1165 set forth in § 192.631(c)(1) and/or failed to demonstrate that certain provisions of those sections are not practical for the SCADA system used. During the inspection, Black Hills was unable to present records to establish that the SCADA systems were compliant with API RP 1165 . Black Hills began pipeline control room operations at the Council Bluffs, Iowa facility in July 2020. Prior to beginning control room operations to Council Bluffs, Black Hills operated two control rooms in Omaha, Nebraska. Black Hills operates two SCADA systems from the control room in Council Bluffs, Iowa, the legacy Source Gas system commissioned in 2016 and the legacy Black Hills system commissioned prior to 2009. The relocation and consolidation of multiple control rooms to a new facility required an analysis of the new facilities to determine if the new facilities were additions, expansions or replacements of a SCADA system under § 192.631(c)(1).

Black Hills Energy's Response:

The consolidation of the Denver Control Center and relocation of the Papillion Control Center did not result in an addition, expansion or replacement of either SCADA system, Legacy Source Gas (LSG) and Legacy Black Hills (LBH).

While in-service the Denver Control Center was exclusively operating the Legacy Source Gas (LSG) iFix SCADA system. Control Center workstations used for operating the SCADA system were virtual SCADA workstations and were hosted on Company SCADA Sever infrastructure off-premises to the Denver Control Center. Denver Control Center Operations were shut down and Operations were relocated to the Fayetteville and Papillion Control Centers. Operators at those facilities remotely accessed the same virtual SCADA workstations from the alternate Control Center locations. Later in 2020 the Papillion Control Center was relocated Council Bluffs.

The relocation of the Papillion Control Center to Council Bluffs required the relocation of Gas Control Operations for both LSG and LBH from Papillion to Council Bluffs as well as relocating iFix SCADA servers and SCADA workstations to Council Bluffs. The existing LBH servers and workstations were replicated on Company SCADA Sever infrastructure in Council Bluffs and activated for operational use.

Both SCADA systems retained the same iFix SCADA software and configuration throughout. No changes were made to the SCADA system that met the definitions within Company O&M 135.6.2. PIPELINE SCADA DISPLAYS AND API RP-1165 as restated below:

- Addition: A complete new SCADA software platform not replacing a current SCADA software platform.**
- Expansion: The addition of new RTU's, I/O points, or other functionality to the existing SCADA system platform**

- **Replacement: The complete replacement of the SCADA software system from the current SCADA system to a new SCADA system. Routine upgrades of the same SCADA software are not considered replacement.”**

The Company is implementing a new SCADA platform that will be used in both control rooms and will be API 1165 compliant. Estimated completion by Q2 2025.

Finding 2:

Black Hills failed to complete the required test of any backup SCADA systems at least once each calendar year, but at intervals not to exceed 15 months. Black Hills was unable to present the test records for 2020 & 2021.

Black Hills Energy’s Response:

Testing was completed on time as required by CRM. During the PHMSA audit, the team had difficulty locating the documentation completed during the 2020 and 2021 tests. Testing for 2020 was completed and documented from August 13, 2020 through August 16, 2020. The 2021 SCADA failover testing was completed and documented on November 9, 2021 through November 11, 2021. Please see attachments.

Finding 3:

In 2021, Black Hills failed to complete the required training program review of the training program content to identify potential improvements at least once each calendar year, but at intervals not to exceed 15 months. The training program was reviewed in 2019 and 2020 at the required intervals, but not in 2021.

Black Hills Energy’s Response:

As a part of our annual review in 2021, the team rewrote the training program. Documentation of the review was the new training outline.

Finding 4:

Black Hills failed to present records to demonstrate a point-to-point verification after annual maintenance activities, like-for-like replacements and calibrations of field instrumentation, valve operations and other field-initiated activities that affect control room operations². Additionally, Black Hills failed to maintain records documenting on-the-job training provided to controllers by Black Hills staff. In practice Black Hills has developed and implemented a new controller training program that is more in depth with computer-based training, reading of individual system description manuals, 1-to-1 training on the console and exams.

Black Hills Energy's Response:

Point to point verifications are completed with the SCADA team when changes are made within the SCADA configuration based on the work done in the field. When maintenance activities are completed in the field that does not require changes to the SCADA configuration, check outs are done with Gas Control. While this process has been in place with the field personnel and Gas Control, the validation of specific points was not documented in the Gas Control logs. To address this, Gas Control Management has created a new shift log type in the Elogger software to capture field-initiated point-to-point activities with gas control. On-the-job training activities have been implemented and are documented per-control as they are completed.

Gas Control has conducted meetings with the field personnel managers to ensure any field-initiated activities are point to point checked with Gas Control.

Also, Black Hills Energy is conducting a forensic analysis of all field operations and maintenance records for 2018 – 2022 for those pipelines controlled from the Council Bluffs control room. This analysis is targeted to be completed within the required 120 days of receipt of our Final Order.

Black Hills Energy appreciates the work of the PHMSA Inspectors. If there are any questions or further information required regarding matters in this letter, please let me know.

Sincerely,

Tom Worley
Manager Gas Control