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July 14, 2021

Mr. Robert Burrough
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration
840 Bear Tavern Road, Suite 300
West Trenton, NJ 08628

RE: Notice of Amendment – May 6, 2021
CPF 1-2021-025-NOA

Dear Mr. Burrough:

This letter is in response to your Letter of Concern, dated May 6, 2021. There were three items noted.

The item in the letter is first restated below and is then followed by Black Hills Energy's response in bold font.

PHMSA Underground Natural Gas Storage Inspection letter:

1. Item – Notice of Amendment §192.12 (c)

RMNG's written procedures for conducting operations, maintenance, and emergency preparedness and response activities under § 192.12(b)1 were inadequate. Specifically, RMNG's procedures failed to address a unique situation with the annular space on some wells and failed to require consideration of this unique situation when determining annular gas threshold levels in accordance with API RP 1171, Section 9.2.1 (Section 9.2.1) and Section 9.3.2 (Section 9.3.2).

Section 9.2.1 states in part:

The operator shall maintain functional integrity of storage wells and reservoirs. Storage wells and reservoirs can have different characteristics resulting in unique requirements in approaching integrity demonstration, verification, and monitoring.

Section 9.3.2 states in part:

The operator shall evaluate each annular gas occurrence that exceeds operator- or regulatory defined threshold levels determined from well integrity evaluation and from risk assessment.

During the inspection, RMNG reported that annular gas pressures were being affected by expanding fluid during withdrawal in some wells in the storage field. However, this particular situation was not addressed in RMNG's procedures, nor was it considered in its process for determining annular gas threshold levels.

Therefore, RMNG's written procedures required by § 192.12(c) were inadequate. RMNG must revise its procedures to address unique requirements stemming from this well characteristic, including in its procedures related to Section 9.3.2.

Black Hills Energy's Response:

BHE has amended its annular thresholds with historical data to assist in highlighting anomalies. O&M Section 30.5 has been updated as follows:

When an existing well is identified as having a condition which may indicate compromised mechanical integrity as enumerated in Section 30.9 MECHANICAL INTEGRITY MONITORING of this document, the SIMP Program Manager shall be notified and shall evaluate the site-specific well conditions within three (3) working days of such notification. Should the SIMP Program Manager determine that a change to the mechanical integrity of the subject well may have occurred, the SIMP Program Manager shall prepare or cause to be prepared a responsive action plan within five (5) working days of such determination.

2. Item – Notice of Amendment §192.12 (d) and (4)

RMNG's written procedures for carrying out its integrity management program under API RP 1171, Section 8 were inadequate. Specifically, RMNG's written procedures did not detail how the effectiveness of risk monitoring and risk management programs would be assessed in accordance with API RP 1171, Section 8.7.1 (Section 8.7.1).

Section 8.7.1 states in part:

The operator shall assess the effectiveness of risk monitoring and risk management programs and maintain a continual review and improvement cycle in risk management activities to provide functional integrity of the storage operation.

During the inspection, RMNG presented procedures from their Storage Integrity Management Plan (SIMP), Section 133.6.1.2. Those procedures failed to explain how the effectiveness of risk monitoring and risk management programs would be assessed. Therefore, RMNG's written procedures required by § 192.12(d)(4) were inadequate. RMNG must revise its procedures to include details on how it will comply with Section 8.7.1.

Black Hills Energy's Response:

BHE has amended its SIMP O&M section 133.6.1.4 to include add an additional review during its annual review process. BHE will compare well by well risk results for that year to the previous year to observe for risk reductions from the work completed that year.

133.6.1.4:

If the overall field risk is increasing or the frequency and severity of well integrity events are increasing, the SIMP Program Manager shall formulate and implement improvements to the Risk Management plan and/or Risk Management Model and reassess the assets.

3. Item – Notice of Amendment §192.12 (d) and (4)

RMNG's written procedures for carrying out its integrity management program under API RP 1171, Section 8 were inadequate. Specifically, RMNG's procedures did not detail how potential threats and hazards would be evaluated in accordance with API RP 1171, Section 8.4.2.

Section 8.4.2 states in part that, "[t]he operator shall evaluate the potential threats and hazards impacting storage wells and reservoirs."

During the inspection, RMNG presented procedures from Section 133.6.1.2, Integration of Risk Information, of their SIMP. Those procedures failed to explain how potential threats and hazards impacting storage wells and reservoirs would be evaluated.

Therefore, RMNG's written procedures required by § 192.12(d)(4) were inadequate. RMNG must revise its procedures to include details on how it evaluates potential threats and hazards in accordance with Section 8.4.2.

Black Hills Energy's Response:

BHE has amended its SIMP O&M section 133.6.1.2 to show that the well data collected and integrated into the risk model is then assigned point values based on the results. Those values are added together to calculate risk scores.

133.6.1.2:

The risk informational analysis and integration is performed as part of the risk analysis process and includes the following information, each of which is assigned a point value that sums to calculate a risk score for each well:

In Conclusion:

Black Hills Energy appreciates the work of the Pipeline and Hazardous Materials Safety Administration. If you have any questions regarding the matters covered in this letter, or if further follow-up is required, please call or email John Hill Jr PE, VP Gas Engineering, at 605-721-2180, email is john.hill@blackhillscorp.com.

Sincerely,



John A. Hill, Jr. PE
Vice- President Natural Gas System Safety

cc:

Jason Price
Linn Evans
Mark Arnold
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