



10 Executive Drive
Collinsville, Illinois 62234
217-625-6854
jbozarth@ameren.com

July 13, 2023

SENT VIA EMAIL to: robert.burrough@dot.gov

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

**Subject: Response to CPF 1-2023-040-NOA & CPF 1-2023-044-WL
2022 Glasford Storage Field Inspection**

Dear Mr. Burrough:

This letter is in regard to the on-site inspection of the Ameren Illinois Company (AIC) Underground Natural Gas Storage facility in Glasford, IL, conducted on March 21 – 24, 2022 by the Illinois Department of Natural Resources, and to the subsequent findings identified by PHMSA.

Following the inspection, PHMSA identified a Notice of Amendment (**CPF 1-2023-040-NOA**) and a Warning Letter (**CPF 1-2023-044-WL**), in your letter to AIC dated June 15, 2023, requesting a response within 30 days.

AIC submits the following written comments and revised procedures to address PHMSA's findings.

1. CPF 1-2023-040-NOA [49 CFR 192.12 (b) with reference to API RP 1171, Section 9.3.2 – Well Integrity Monitoring]

PHMSA indicated in the Notice of Amendment letter that:

AIC's written procedures for conducting operations and maintenance were inadequate to ensure safe operation of a pipeline facility. Specifically, AIC's procedure failed to provide sufficient detail to address situations where the testing of the master valve and pipeline isolation valve indicated that the valves failed to isolate the wellhead in accordance with API RP 1171, Section 9.3.2 (Section 9.3.2)

Section 9.3.2 states, in part that "[t]he operator shall test the operation of the master valve and pipeline isolation at least annually for the proper function and ability to isolate the well. The valves shall be

maintained, repaired, or replaced in accordance with the operator's valve maintenance program for isolation valves.

During the inspection, the Illinois DNR reviewed AIC's procedures for wellhead valve testing, and noted the procedure did not provide detailed action to take when a valve fails the isolation test. AIC's procedures also did not provide detailed action to repair or replace valves that were found to be defective through annual testing.

Therefore, AIC's procedure for wellhead valve testing was inadequate, as it did not include procedures regarding the repair or replacement of valves that were not properly functioning in accordance with Section 9.3.2. AIC must revise its procedures to address the inadequacies noted above.

Ameren Illinois Response to CPF 1-2023-040-NOA

Ameren Illinois does not contest this Notice of Amendment and has established a valve replacement program to maintain and replace valves failing the annual valve isolation testing for master and wing valves on wellheads. Once the baseline number of failed tests was established for each storage field, a program was put in place to address these failed tests. Glasford storage field had 3 valves that failed the isolation testing for 2021:

- Cowser #3 had both the master valve and wing valve fail the isolation test
- Cowser #5 had a failed wing valve.

The replacement program states that a minimum of 20% of failed valves shall be replaced within 12 months of the failed test. The Cowser #3 master valve and wing valve were replaced in May of 2022 in accordance with the valve replacement program in place.

Valve isolation testing results are reviewed annually and the wells with valves that failed isolation testing are scheduled for replacement in accordance with the replacement timeframe defined in **Attachment 2**. Once the wells have been identified, detailed well specific procedures are developed to replace these valves within the valve replacement timeframe as shown in **Attachment 3**. These procedures are developed on a case-by-case basis based upon the specifics of the particular well.

Attachment 1 shows the valve isolation testing procedure for master and wing valve isolation testing and maintenance to perform during the testing process.

Attachment 2 shows the valve isolation tests along with the replacement program and identifies each valve that failed the test. This attachment has three tabs as follows:

- Tab 1 identifies the valve replacement timeframes broken down by the given testing criteria.
- Tab 2 shows the actual testing pressures for each master valve and identifies which master valves failed the test.
- Tab 3 shows the actual testing pressures for each wing valve and identifies which wing valves failed the test.

Attachment 3 shows the specific well work procedure for replacing the master valve and wing valve on Cowser #3.

2. CPF 1-2023-044-WL [49 CFR 192.12 (b) with reference to API RP 1171, Section 8.4.2 – Threat and Hazard Identification and Analysis]

PHMSA indicated in the Warning Letter that:

AIC failed to meet the provisions of API RP 1171, Section 8. Specifically, AIC failed to assess the interaction of potential threats and hazards impacting the risk management plan in accordance with API RP 1171, Section 8.4.2 (Section 8.4.2).

Section 8.4.2 states, in part, that "[t]he operator should assess potential threat and/or hazard interactions, such as the relationship of the threat of casing damage during well drilling or service work that could exacerbate corrosion processes."

During the inspection, AIC reported that the interaction of potential threat and/or hazard impacting the storage facility had not been incorporated into the risk model. Specifically, the interaction of the presence of hydrogen sulfide and the proximity of the nearest dwelling had not been included in the risk analysis. The IDNR recommended that AIC address the hydrogen sulfide threat and its interaction with the proximity of nearby dwellings.

Ameren Illinois Response to CPF 1-2023-044-WL

The risk model for the Glasford UNGS station was reviewed and updated on 12/20/2022. H2S levels and proximity to the public was reviewed and a parameter was added to account for a well that is within the Wellhead Safety Zone (WSZ) of a structure with identified H2S levels greater than 10 ppm. These updated risk model parameters were reviewed with the field engineering, operators, field supervision, and engineering supervision and were made effective on 02/01/23.

Attachment 4 contains the updated risk model with changes shown on the "Consequence Ranking" tab in the with column "W" (H2S Consequence) and column "X" (associated weighting). Ameren is requesting confidential treatment of this attachment.

Attachment 5 is the annual review detailing what was updated and who reviewed the information that was updated and that the change was made according to procedure.

Please contact me if there are any additional questions or clarifications related to these revised procedures.

Sincerely,



John W. Bozarth
Director, Pipeline Safety Compliance & Quality Management

cc: LPSingh, PESmith, BCKloeppe, SDUnderwood, BJStear, CRRayot