



U.S. Department
of Transportation

**Pipeline and
Hazardous Materials
Safety Administration**

840 Bear Tavern Road, Suite 300
West Trenton, NJ 08628
609.771.7800

WARNING LETTER

OVERNIGHT EXPRESS DELIVERY

August 5, 2021

Mr. Gregg West
Vice President Midstream Operations
Equitrans Midstream Corporation
2200 Energy Drive
Canonsburg, PA 15317

CPF 1-2021-046-WL

Dear Mr. West:

From October 6 through October 9, 2020, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code (U.S.C.) inspected Equitrans Midstream Corporation's (EQT) Rhodes and Skin Creek underground natural gas storage fields in Lewis County, West Virginia.

As a result of the inspection, it is alleged that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations (CFR). The items inspected and the probable violations are:

1. **§ 191.22 National Registry of Operators.**
 - (a) ...
 - (c) **Changes.** Each operator of a gas pipeline, gas pipeline facility, UNGSF, LNG plant, or LNG facility must notify PHMSA electronically through the National Registry of Operators at <https://portal.phmsa.dot.gov> of certain events.
 - (1) An operator must notify PHMSA of any of the following events not later than 60 days before the event occurs:
 - (i) ...

(iv) Maintenance of a UNGSF that involves the plugging or abandonment of a well, or that requires a workover rig and costs \$200,000 or more for an individual well, including its wellhead. If 60-days' notice is not feasible due to an emergency, an operator must promptly respond to the emergency and notify PHMSA as soon as practicable.

EQT failed to file a required 60-day notification for the abandonment of underground natural gas wells.

During the inspection, the inspection team reviewed the 2020 annual report filed for Rhodes and Skin Creek storage fields, which noted that one well in each of the fields was plugged and abandoned in 2019. The PHMSA Pipeline Data Mart database does not document that any notifications were filed for either of these abandonments. EQT could not produce any documentation of the notifications, and later confirmed that no filings were made. Skin Creek Well 7757 was plugged and abandoned in 2019. The field operations to plug and abandon Rhodes Well 8164 were started in late 2019 and completed in early 2020. Both well abandonments were conducted in the course of other well integrity investigation activities.

Therefore, EQT failed to file the appropriate notification for changes to its system as required by § 191.22(c)(1)(iv).

2. § 191.25 Filing safety-related condition reports.

Each report of a safety-related condition under § 191.23(a)(1) through (9) must be filed (received by the Associate Administrator) in writing within 5 working days (not including Saturday, Sunday, or Federal holidays) after the day a representative of an operator first determines that the condition exists, but not later than 10 working days after the day a representative of an operator discovers the condition. Separate conditions may be described in a single report if they are closely related. Reporting methods and report requirements are described in paragraph(c) of this section.

EQT failed to report a safety related condition within 5 working days after determination that the condition existed.

During the inspection, the inspection team reviewed records regarding safety related conditions. Based on integrity assessment data provided by Baker Hughes for Skin Creek Well 7757, EQT discovered a Class 4 corrosion condition on 10-18-2018, and determined that a safety-related condition existed on the same date. EQT filed Safety Related Condition Report #20180189 on October 28, 2018. Although EQT did report the safety related condition 7 working days after discovery, it did not file the report within the required timeframe of 5 working days after determination the condition existed.

Therefore, EQT failed to report a safety related condition in accordance with § 191.25.

3. **§ 192.12 Underground natural gas storage facilities.**

(a) ...

(b) *Depleted hydrocarbon and aquifer reservoir UNGSFs.*

(1) ...

(2) **Each UNGSF that uses a depleted hydrocarbon reservoir or an aquifer reservoir for natural gas storage and was constructed on or before July 18, 2017, must meet the provisions of API RP 1171 (incorporated by reference, see §192.7), sections 8, 9, 10, and 11, and paragraph (c) of this section, by January 18, 2018, and must meet all provisions of paragraph (d) of this section by March 13, 2021.**

EQT failed to meet the provisions of API RP1171, Section 9. Specifically, EQT failed to demonstrate that it evaluated occurrences that exceeded threshold levels in accordance with API RP 1171, Section 9.3.2 (Section 9.3.2).

Section 9.3.2 states in part: "The operator shall monitor for presence of annular gas by measuring and recording annular pressure and/or annular gas flow. 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. The operator should test wellhead seals when annulus pressure is detected and where injectable packing and/or test ports are present."

The EQT *Integrity Management Program for Underground Gas Storage* (SIMP), Section 5.2, addresses monthly well inspections. One of the inspection items to be noted and recorded is the annular vent gas volume.

There are 15 well locations in Rhodes Storage noted for presence of annular gas: 8200, 8168, 8165, 8185, 8170, 8180, 8198, 8193, 7473, 8192, 8162, 8163, 8188, 8181, 8161. The pressures that are monitored, or other inspection data, are not documented in the work orders.

The records do not explicitly indicate that a threshold was exceeded or what further evaluations were conducted. EQT did not have any other records demonstrating they evaluated each annual gas occurrence that exceeds their thresholds.

Therefore, EQT failed to follow the provisions of API RP1171, Section 9.3.2.

4. **§ 192.12 Underground natural gas storage facilities.**

(a) ...

(b) *Depleted hydrocarbon and aquifer reservoir UNGSFs.*

(1) ...

(2) **Each UNGSF that uses a depleted hydrocarbon reservoir or an aquifer reservoir for natural gas storage and was constructed on or before July 18, 2017, must meet the provisions of API RP 1171 (incorporated by reference, see §192.7), sections 8, 9, 10, and 11, and paragraph (c) of this section, by January 18, 2018, and must meet all provisions of paragraph (d) of this section by March 13, 2021.**

EQT failed to meet the provisions of API RP1171, Section 11. Specifically, EQT failed to incorporate site security safeguards into its operations by failing to record site security status of well sites.

Section 11.9.1 states: “The operator shall develop programs incorporating safeguards to the environment, site security, and safety and health into storage design, construction, and operations. The operator’s programs should incorporate in a plan, or plans, operator-established procedures that are founded on industry recommended practices and applicable to process safety in storage operations.”

The EQT *Integrity Management Program for Underground Gas Storage* (SIMP), Section 5.2, addressed monthly well inspections. One of the inspection items to be noted and recorded was to verify well security. If there were indications of vandalism, follow-up notification with the supervisor or manager was required.

The inspection team reviewed random Monthly Well Inspection work orders for documentation that the site security was evaluated at the well site. No documentation was noted in the work order. In our discussion for this question, the operator indicated that there was no specific check-off box or tab included in the work order to explicitly document that this element was inspected. The operator further indicated this element would normally be included in the monthly inspection and would have been performed for all the wells in the storage field. Any negative results for this element of the inspection would be documented by comments (failure notation and generation of follow-up work order).

Therefore, EQT failed to meet the provisions of Section 11.9.1, because the inspection records fail to note and record site security status at the well site.

5. § 192.12 Underground natural gas storage facilities.

(a) ...

(b) *Depleted hydrocarbon and aquifer reservoir UNGSFs.*

(1) ...

(2) **Each UNGSF that uses a depleted hydrocarbon reservoir or an aquifer reservoir for natural gas storage and was constructed on or before July 18, 2017, must meet the provisions of API RP 1171 (incorporated by reference, see §192.7), sections 8, 9, 10, and 11, and paragraph (c) of this section, by January 18, 2018, and must meet all provisions of paragraph (d) of this section by March 13, 2021.**

EQT failed to meet the provisions § 192.12(c)¹ by January 18, 2018. Specifically, EQT failed to have procedures developed and implemented by this date regarding various operations and maintenance activities.

During the inspection, the inspection team reviewed the following EQT procedures via its SharePoint:

- STR-01 *Inventory Verification Shut-In Test*, no effective date noted; PPE specified; potential ignition hazards noted in Safety, Health and Environmental.

- STR-02 *Maintaining Annular Gel Volumes*, no effective date noted; pressure on annulus recording is required; PPE; ignition hazard and environmental hazards noted.
- STR-03, *Monthly Inspection of Storage Wells*, effective date, revision date not stated.
- STR-04, *Well Entry*, no effective date or revision date noted.
- STR-05 *Well Mechanical Integrity Test*, 4 pages, no effective date noted; performed after well workover, typically by contractor; consultant and company rep oversees performance of this procedure
- STR-06, *P/A Storage Well Inspection*, effective date 5-13-20, next review 5-15-21.

The absence of effective dates in 5 of 6 procedures, and the May 13, 2020 effective date for STR-06, did not demonstrate that the procedures were developed and implemented as of January 18, 2018, and retained for both operator personnel and contractors.

Therefore, EQT failed to meet the provisions of § 192.12(c) by January 18, 2018.

6. § 192.12 Underground natural gas storage facilities.

(a) ...

(c) *Procedural manuals.* Each operator of a UNGSF must prepare and follow for each facility one or more manuals of written procedures for conducting operations, maintenance, and emergency preparedness and response activities under paragraphs (a) and (b) of this section. Each operator must keep records necessary to administer such procedures and review and update these manuals at intervals not exceeding 15 months, but at least once each calendar year. Each operator must keep the appropriate parts of these manuals accessible at locations where UNGSF work is being performed. Each operator must have written procedures in place before commencing operations or beginning an activity not yet implemented.

EQT failed to follow its manual of written procedures for conducting maintenance activities under 192.12(b)(2). Specifically, EQT failed to follow its *Integrity Management Program for Underground Gas Storage* (SIMP), Section 5.2 regarding documenting monthly well inspections.

EQT's SIMP, Section 5.2 addressed monthly well inspections. This section noted 13 specific items in the monthly well inspections that are to be *noted and recorded* [Emphasis added]. One of the inspection items to be noted and recorded was to verify that the well sign was visible, and to present data indicating the well name or ID number, the operator's name, and 24-hour contact number. If the sign was damaged or missing, a follow up with the supervisor or manager is required.

The inspection team reviewed EQT's DataSplice, the field data logging application that would be used for documenting the monthly well inspections. The team noted 6 inspection items in the DataSplice field application that were noted and recorded in the monthly inspections. Seven (7) of the items were not explicitly noted and recorded.

Random Monthly Well Inspection work orders were also reviewed for appropriate signage documentation at the well site. No documentation was noted in the work order for signage inspection. EQT indicated that there was no specific check-off box or tab in the work order to explicitly document that this element was inspected. EQT further indicated this element would normally be included in the monthly inspection and would have been performed for all the wells in the storage field. Any negative results for this element of the inspection would be documented by comments (failure notation and generation of follow-up work order).

Therefore, EQT failed to follow its SIMP, Section 5.2 regarding documenting its monthly well inspections.

7. § 192.12 Underground natural gas storage facilities.

(a) ...

(c) *Procedural manuals.* Each operator of a UNGSF must prepare and follow for each facility one or more manuals of written procedures for conducting operations, maintenance, and emergency preparedness and response activities under paragraphs (a) and (b) of this section. Each operator must keep records necessary to administer such procedures and review and update these manuals at intervals not exceeding 15 months, but at least once each calendar year. Each operator must keep the appropriate parts of these manuals accessible at locations where UNGSF work is being performed. Each operator must have written procedures in place before commencing operations or beginning an activity not yet implemented.

EQT failed to follow its manual of written procedures for conducting maintenance activities under 192.12(b)(2). Specifically, EQT failed to follow its *Integrity Management Program for Underground Gas Storage* (SIMP), Section 5.2 regarding documenting monthly well inspections pursuant to API RP 1171, Section 9.3.2 (Section 9.3.2).

Section 9.3.2 states in part: "The operator shall monitor for presence of annular gas by measuring and recording annular pressure and/or annular gas flow. 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. The operator should test wellhead seals when annulus pressure is detected and where injectable packing and/or test ports are present."

EQT's SIMP, Section 5.2, addresses monthly well inspections. One of the inspection items to be noted and recorded was the annular vent gas volume.

There are 15 well locations in Rhodes Storage noted for presence of annular gas: 8200, 8168, 8165, 8185, 8170, 8180, 8198, 8193, 7473, 8192, 8162, 8163, 8188, 8181, 8161. The pressures that are monitored, or other inspection data such as vent volumes, were not documented in the work orders.

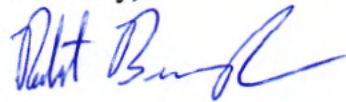
Therefore, EQT failed to follow the provisions of API RP1171, Section 9.3.2.

Under 49 U.S.C. § 60122 and 49 CFR § 190.223, you are subject to a civil penalty not to exceed \$222,504 per violation per day the violation persists, up to a maximum of \$2,225,034 for a related series of violations. For violation occurring on or after July 31, 2019 and before January 11, 2021, the maximum penalty may not exceed \$218,647 per violation per day the violation persists, up to a maximum of \$2,186,465 for a related series of violations. For violation occurring on or after November 27, 2018 and before July 31, 2019, the maximum penalty may not exceed \$213,268 per violation per day, with a maximum penalty not to exceed \$2,132,679. For violation occurring on or after November 2, 2015 and before November 27, 2018, the maximum penalty may not exceed \$209,002 per violation per day, with a maximum penalty not to exceed \$2,090,022.

We have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to correct the item(s) identified in this letter. Failure to do so will result in Equitrans Midstream Corporation being subject to additional enforcement action.

No reply to this letter is required. If you choose to reply, in your correspondence please refer to **CPF 1-2021-046-WL**. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b).

Sincerely,



Robert Burrough
Director, Eastern Region, Office of Pipeline Safety
Pipeline and Hazardous Materials Safety Administration

¹ § 192.12 Underground natural gas storage facilities.

(a)...

(c) *Procedural manuals*. Each operator of a UNGSF must prepare and follow for each facility one or more manuals of written procedures for conducting operations, maintenance, and emergency preparedness and response activities under paragraphs (a) and (b) of this section. Each operator must keep records necessary to administer such procedures and review and update these manuals at intervals not exceeding 15 months, but at least once each calendar year. Each operator must keep the appropriate parts of these manuals accessible at locations where UNGSF work is being performed. Each operator must have written procedures in place before commencing operations or beginning an activity not yet implemented.