ENERGY TRANSFER

August 9 , 2019

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

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

RE: CPF No. 1-2019-1012W
Panhandle Eastern Pipeline Company, LP– Warning Letter

Dear Mr. Burrough,

Panhandle Eastern Pipeline Company, LP (PEPL) acknowledges receipt of the PHMSA Warning Letter dated July 11, 2019 and provides the following response.

1. **§192.12 (d) Underground natural gas storage facilities.**

(d) Each underground natural gas storage facility that uses a depleted hydrocarbon reservoir or an aquifer reservoir for gas storage, including those constructed not later than July 18, 2017 must meet the operations, maintenance, integrity demonstration and verification, monitoring, threat and hazard identification, assessment, remediation, site security, emergency response and preparedness, and recordkeeping requirements and recommendations of API RP 1171, sections 8, 9, 10, and 11 (incorporated by reference, see §192.7) by January 18, 2018.

Panhandle failed to monitor for the presence of annular gas as directed by API RP 1171, Section 9.3.2.

Section 9.3.2 of API RP 1171, Well Integrity Monitoring, states:

> The operator shall monitor for presence of annular gas by measuring and recording annular pressure and/or annular gas flow:

During the field inspection from April 23, 2019 through April 25, 2019 at PEPL's Howell Underground Storage field, PHMSA discovered that Panhandle was unable to monitor for the presence of annular gas at the surface due to a lack of

pressure test ports or other means of measuring annular gas flow.

PEPL Response:

PEPL acknowledges it failed to monitor for the presence of annular gas as directed by API RP 1171, Section 9.3.2. However, PEPL's failure to monitor, as was actually disclosed to PHMSA by PEPL and not "discovered" by PHMSA during the inspection, was due to PEPL's misinterpretation of a FAQ #22 from PHMSA's underground natural gas storage website regarding the timing allowed to complete risk assessment work, including monitoring annular pressures. The response to FAQ #22 that PEPL relied on reads as follows:

> **22. What are PHMSA's expectations for UGS safety risk analyses and assessment work, given that some of the provisions in the recommended practices may take several years to fully complete or implement?**
>
> **The implementation plan and general timeline should address the risk analysis and threats including the timing of assessment work as described in API 1170, Section 10, and API 1171, Section 8, as applicable. Preventive and mitigative measures must be scheduled commensurate with the specific risks identified for each well and the overall risks identified for the storage field.**
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> ***In most cases, PHMSA expects UGS operators to complete a risk assessment including preventive and mitigative measures for all wells, within 3 to 8 years from the effective date of the rule, depending on the size and complexity of the facility and as warranted by the risk assessment*** **(emphasis added). PHMSA also expects that operators will prioritize implementation of preventive and mitigative measures for wells with higher risk.**

Because PEPL's interpretation of FAQ #22 was that PEPL had 3-8 years from the effective date of the rule to complete the risk assessment work, some, not all annular pressure monitoring work had been planned for 2019, as detailed below. Not until PHMSA's inspection of another Energy Transfer underground storage facility; the Bammel Storage facility in Houston, TX between December 11, 2018 through December 14, 2018 (well after the effective date of the rule), did PEPL become aware that it had misinterpreted the "3 to 8 year" obligation, and that PHMSA's interpretation was that annular monitoring was to commence when the interim rule became effective, January 18, 2018.

Although PEPL misinterpreted the requirement, PEPL's Howell Underground Natural Gas Storage field ("Howell Storage") Operations had a 2019 project planned to equip the storage wells for annular monitoring. The general procedure for this work was:

1. Move in and excavate around wellhead
2. Locate casing ports
3. Remove Bull Plug

4. Install reducing swedge
5. Install valve and riser to bring above ground level
6. Backfill around wellhead

Because this work requires digging up the wellheads below grade, the work was planned to commence when the ground thawed out in the spring of 2019. Yet, due to the exceptionally wet spring weather, excavations were delayed until June of 2019. To date, 23 of the wells were equipped and annulus monitoring commenced during the week of July 22, 2019.

During excavation, however, we discovered that 13 additional wells do not have casing ports. These wells will require hot tapping as a precaution in the event there is gas pressure in these annuli. Because the safest time to perform this hot tap work is when the reservoir pressure is at its lowest, Howell Storage Operations plans to perform the hot tap work in the spring of 2020, following withdrawal operations. Currently the reservoir injection pressure in the storage field is already above 1800 psi and the Company's tapping equipment is rated for a maximum pressure of 1440 psi.

Until these final wells can be safely equipped for annular monitoring next spring, the overall safety of the Howell Storage will not be jeopardized, as all wells will continue to be visited weekly, each wellhead assembly visually and audibly inspected for leaks, and weather permitting, the storage field patrolled by manned aircraft weekly.

We anticipate completion of the installation of annulus monitoring on the remaining wells at Howell Storage by June 30, 2020, provided weather and operating conditions allow for timely completion.

PEPL is committed to operating our pipeline and storage systems safely and in compliance with all applicable regulations. If you have further questions, please feel free to contact Karen Benson at (713)989-7483.

Sincerely,

Eric Amundsen
SVP Operations
Energy Transfer Partners