



ENTERPRISE PRODUCTS PARTNERS L.P.
ENTERPRISE PRODUCTS HOLDINGS LLC
(General Partner)

ENTERPRISE PRODUCTS OPERATING LLC

RECEIVED AUG - 3 2017

August 2, 2017

Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
820 Bear Tavern Road, Suite 103
West Trenton, NJ 08628

Attn: Mr. Robert Burrough
Acting Director, Eastern Region, PHMSA

Re: CPF 1-2017-5021M
Notice of Amendment
Enterprise Products Operating, LLC ("Enterprise")

Dear Mr. Burrough,

Enterprise is in receipt of the above referenced "Notice of Amendment" (NOA) dated May 4, 2017 and PHMSA's subsequent letter granting Enterprise a response-time extension to August 2, 2017. This letter constitutes Enterprise's timely response to the subject NOA.

Enterprise is committed to ensuring that our Engineering Standards & Specifications and Company procedures are technically accurate and effective for their intended use. As such, periodic reviews and revisions, if applicable, are conducted as a part of a continuous improvement program. Subsequent to the concerns raised during the PHMSA inspection, Enterprise initiated stakeholder meetings to review and revised the noted items.

NOA Item 1:

§195.202 Compliance with specifications or standards.

Each pipeline system must be constructed in accordance with comprehensive written specifications or standards that are consistent with the requirements of this part.

Enterprise's construction procedures were inadequate in that they failed to specify inspection requirements. Specifically, Enterprise's Project Coordination and Inspection Standard 8503 procedure (Procedure) was inadequate in that it does not provide guidance on how to conduct inspections in accordance with §195.204.

§195.204 states: "Inspection must be provided to ensure that the installation of pipe or pipeline systems is in accordance with the requirements of this subpart. Any operator personnel used to perform the inspection must be trained and qualified in the phase of construction to be inspected. An operator must not use operator personnel to perform a required inspection if the operator personnel performed the construction task requiring inspection. Nothing in this section prohibits the operator from inspecting construction tasks with operator personnel who are involved in other construction tasks."

During the inspection, the PHMSA inspector reviewed Enterprise's Procedure. The Procedure failed to include guidance on how to meet the requirements of §195.204. Enterprise personnel stated, "this statement is not included in Enterprise procedures and can be added in."

Enterprise Response to NOA Item 1:

Enterprise has amended Engineering Standard 8503, *General Requirements for Third Party Inspectors*, (STD.8503) to include the language in §195.204. An excerpt of the amended STD.8503 is attached and now states within the Foreword:

"(2) Inspection is an ongoing process that must be provided to ensure that the installation of pipe or pipeline systems is in accordance with all applicable regulatory requirements and Company standards. Any Company Representative used to perform an inspection task must be trained and/or qualified in the phase of construction to be inspected.

(3) Any required inspection shall be performed by someone other than the person that performed the construction task being inspected."

NOA Item 2:

§195.402 Procedural manual for operations, maintenance, and emergencies

(a) General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.

Enterprise's procedures were inadequate in that they failed to provide sufficient guidance on record retention and documentation in accordance with §195.404(b)(2).

§195.404(b) states: Each operator shall maintain for at least 3 years daily operating records that indicate: (2) Any emergency or abnormal operation to which the procedures under §195.402 apply.

During the inspection, the PHMSA inspector reviewed Enterprise O&M Manual Section 801 – Abnormal Operation Procedures, dated 11/12/13 (Procedure), and the "Ten AOC [Abnormal Operating Conditions] Responder" records.

- 1. The Procedure states, "Written reports of abnormal operations will be maintained in the location DOT files for five (5) years."*
- 2. The "TE[C] AOC Responder" records state, "Retention 2 Full Years."*

The record retention period in the Procedure conflicts with the record retention period on the AOC records, as well as the requirement of §195.404(b)(2).

In addition, the Procedure failed to define where AOC's must be documented. The Procedure states, "Control Room Operations Supervision and/or the location supervisor will retain any available records that may be used to reconstruct the sequence of events surrounding an abnormal operation as defined in the section."

Enterprise Response to NOA Item 2:

Enterprise has removed the conflicting record retention statement in the AOC Responder Report. The updated AOC Responder Report is provided. The retention period for AOC reports remains at five (5) years, which exceeds the three years required by §195.404(b)(2).

In addition, Enterprise has amended O&M Manual Procedure 801, *Control Room Operations*, (O&M 801) to define where AOC's must be documented. An excerpt of the revised O&M 801 is attached and Section 2.2 now states:

- 2.2. "If the AOC is not reportable as a safety-related condition per O&M Procedure S5106 Safety-Related Conditions Report, following a review and diagnosis of the AOC by the Field and Pipeline Control, communication and detailed documentation shall be recorded as an AOC in the Pipeline Control Event Log."

NOA Item 3:

§195.402 Procedural manual for operations, maintenance, and emergencies

- 3. General. Each operator shall prepare and follow for each pipeline system a manual of written procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies. This manual shall be reviewed at intervals not exceeding 15 months, but at least once each calendar year, and appropriate changes made as necessary to insure that the manual is effective. This manual shall be prepared before initial operations of a pipeline system commence, and appropriate parts shall be kept at locations where operations and maintenance activities are conducted.***

Enterprise's procedures for conducting normal operations and maintenance activities and handling abnormal operations and emergencies were inadequate. Specifically, Enterprise's procedures were inadequate in that they lack detail on leak detection.

During the inspection, the PHMSA inspector reviewed Enterprise's CPM O&M Manual, dated 03/01/11 (Procedure).

1. *Appendix A of the Procedure states in part:
"Tier III target leak threshold will be 12% leak detection in 60 minutes.
Tier III target leak threshold will be 5% leak detection in 60 minutes."*

The Risk Level of Pipeline and Target Threshold table states in part:

"Tier II – 5% leak detection.

Tier III – 12% leak detection."

The Procedure provides conflicting information for leak detection thresholds.

2. *The Performance Evaluation section of the Procedure states:*

Annual analysis of existing pipeline CPM systems will be performed to determine if a pipeline system is meeting appropriate leak detection targets as defined in the company leak detection strategy (Appendix A) ..."

Appendix A is titled "Risk ranking and target threshold (60 min):" not company leak detection strategy as the reference to Appendix A. There is no link to performance evaluations data in the Appendix or elsewhere in Procedure.

3. *The CPM system selection section of the Procedure states:*

"Risk scores developed by the IMP process will be used to prioritize implementations."

The PHMSA inspector requested:

- a. *Requested relevant documents on the annual leak detection review. Enterprise provided, "Leak Detection Budget Request" email correspondence. The email states, "...we have: Performed a high-risk/low-performing analysis of our current implementation..."*
- b. *Enterprise's procedure on its CPM risk score. Enterprise stated, "The Tier system is not used, and the company currently uses the risk model to establish high risk approach, not a Tier approach."*

The procedure conflicts with the statements and records provided by Enterprise.

4. *The procedure does not provide guidance on:*

- a. *Provisions or modifications to leak detection for lines without SCADA located in HCA areas.*
- b. *Where the CPM records are maintained/documented.*

Enterprise Response to NOA Item 3:

1. With respect to item 1, the conflicting information was due to a typographical error in the first line. It should have been "Tier II target leak threshold will be 5% leak detection in 60 minutes."

Furthermore, Enterprise's leak detection target thresholds and Tier classifications have been restructured. The Tier classifications are no longer in use and pipeline systems are now grouped as "HCA" or "non-HCA" impacting systems. The leak detection performance targets have been expanded to include a wider range of sensitivity targets and also reliability targets, to reduce false alarms. The restructured leak detection performance targets are identified in the attached CPM O&M Procedure 1405, *LD Performance Targets*, (CPM 1405).

2. With respect to item 2, The CPM O&M Manual has been amended and references the newly developed CPM O&M Procedure 1407, *CPM Annual Review*, (CPM 1407), attached.
3. With respect to item 3, CPM 1405 and CPM 1407 have been amended to address the conflicts mentioned above by clarifying and documenting the CPM system selection process, attached.
4. With respect to item 4a, Enterprise O&M Manual Procedure 703, *Pipeline Leak Detection*, (O&M 703) was developed to provide guidance on provisions for leak detection for lines without SCADA located in HCA areas. Section 2.2 of O&M 703 states:

“In cases where a pipeline does not have a CPM system installed, other leak detection methods identified in Section 3 of this procedure will be implemented until a Leak Detection Capability Evaluation (LDCE), as per CPM O&M procedure LD1408, LDCE, is performed to determine the appropriate long term Leak Detection methodology.”

With respect to item 4b, CPM O&M Procedure 1402, *CPM System Design*, (CPM 1402) was developed and includes guidance in the section titled “CPM System Documentation”, attached.

NOA Item 4:

§ 195.402(c)(3) Procedural manual for operations, maintenance, and emergencies

(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations.

(3) Operating, maintaining and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

Enterprise's procedures for operating, maintaining and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part are inadequate. Specifically, Enterprise Miscellaneous Operating Procedures- Section 1305 Over Pressure Safety Devices and Section 1307 Breakout Tanks, dated 11/12/2013 (Procedure) failed to provide the correct API standard on how to construct and modify aboveground breakout tanks, as per §195.428(c).

§195.428(c) states:

Aboveground breakout tanks that are constructed or significantly altered according to API Std 2510 (incorporated by reference, see § 195.3) after October 2, 2000, must have an overfill protection system installed according to API Std 2510, section 7.1.2.

Both Section 1305 and 1307 of the Procedure states, “When the Company constructs or significantly modifies aboveground breakout tanks in accordance with API 2510 after October 2, 2000, an overfill protection system will be installed in accordance to API RP 2350...”

The Procedure referenced API RP 2350. The correct reference [is] API Std 2510 section 7.1.2.

Enterprise Response to NOA Item 4:

Enterprise removed the paragraph from O&M Procedure 1305, *Overpressure Safety Devices*, (O&M 1305) as it was duplicated in O&M Procedure 1307, *Breakout Tanks* (O&M 1307).

Enterprise has amended O&M 1307 Section 8, which now states:

"When the Company constructs or significantly modifies aboveground breakout tanks in accordance with API 2510 after October 2, 2000, an overfill protection system will be installed in accordance to API 2510 Section 7.1.2...."

An excerpt of O&M 1305 and 1307 is attached.

NOA Item 5:

§195.402(c)(3) Procedural manual for operations, maintenance, and emergencies

(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations.

(3) Operating, maintaining and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

Enterprise's procedures for operating, maintaining and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part are inadequate. Specifically, Enterprise's Corrosion Prevention Program procedure - Rectifier Monitoring CP15, lacks adequate guidance per the requirements of §195.404(c)(3).

Per §195.404(c)(3), a record of each inspection and test required by this subpart shall be maintained for at least 2 years or until the next inspection or test is performed, whichever is longer.

During the inspection, the PHMSA inspector reviewed Enterprise's Corrosion Prevention Program procedure - Rectifier Monitoring CP15, revised 07/09/15 (Procedure) and related records. The rectifier records, were recorded on, "EPROD Survey Report Bi-Monthly Rectifier - Bond" or "January 2013."

The Procedure states:

"...Rectifier readings shall be documented on the cathodic protection log sheet and a minimum of one year's records maintained at the rectifier unless data is gathered by remote monitoring devices..."

- 1. The one-year documentation retention requirement in the Procedure conflicts with the 2- year requirement in §195.404(c)(3).*

2. *In additional follow-up communication with Enterprise, Enterprise stated, "...those inspections are recorded on the technician's rectifier inspection log."*

The requirement in the Procedure to document rectifier readings on the cathodic protection log sheet conflicts with the statements and records provided by Enterprise.

Enterprise Response to NOA Item 5:

The statement in Corrosion Prevention Program Procedure CP15, *Rectifier Monitoring*, (CP15) "...Rectifier readings shall be documented on the cathodic protection log sheet and a minimum of one year's records maintained at the rectifier unless data is gathered by remote monitoring devices..." is not intended to meet the requirements of 49 CFR 195, including 195.404(c)(3) and 195.589(c). Rather, this one year log sheet was merely intended to assist the corrosion technician, while at the rectifier, during field troubleshooting activities and identifying potential systemic problems.

Rectifier readings are to be documented in accordance with the last sentence of Section 1.3 of CP15, attached, which states:

"All rectifier readings shall be entered into the PCS database, including data gathered by remote monitoring devices."

Once documented, Enterprise's Record Retention Schedule requires rectifier readings be retained for at least five (5) years, as required by 195.589(c). An excerpt of the Records Retention Schedule is attached.

Therefore, Enterprise is contesting this finding and requests that PHMSA withdraw this item from the NOA.

NOA Item 6:

§195.402(c)(3) Procedural manual for operations, maintenance, and emergencies

(c) Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following to provide safety during maintenance and normal operations.

(3) Operating, maintaining and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part.

Enterprise's procedures for operating, maintaining and repairing the pipeline system in accordance with each of the requirements of this subpart and subpart H of this part are inadequate. Specifically, Enterprise's firefighting equipment procedure, Miscellaneous Operating Procedures Section 1306 dated 11/12/2013 (Procedure), failed to include guidance on how they maintain adequate firefighting equipment at each pump station and breakout tank area as per § 195.430.

Enterprise's Procedure lacks detail such as:

1. *Documentation requirements*

2. *Follow-up and documentation of remedial issues*
3. *Record retention requirements*
4. *Inspection frequency*
5. *Personnel responsible for "Analysis" and "Approval"*
6. *Criteria for documentation including "Completed" and "Satisfactory" guidelines*

Enterprise Response to NOA Item 6:

O&M Procedure 1306, *Fire Fighting Equipment*, (O&M 1306) references the Company's Safety Policies Manual (SPM). Enterprise SPM Section 5.2, *Fire Protection* (SPM Section 5.2), describes the types of firefighting equipment and inspection, maintenance and training requirements for the operation of fire water systems, fixed dry chemical, carbon dioxide and clean agent extinguishing systems. O&M 1306 linked with SPM Section 5.2 meets or exceeds the requirements of 49 CFR 195.430.

Therefore, Enterprise is contesting this finding and requests that PHMSA withdraw this item from the NOA. SPM Section 5.2 is attached.

Safety Improvement Costs:

It is requested (not mandated) that Enterprise Products Operating, LLC maintain documentation of safety improvement costs associated with fulfilling this Notice of Amendment (preparation/revision of plans, procedures) and submit the total to Robert Burrough, Acting Director, PHMSA Eastern Region, 820 Bear Tavern Road, Suite 103, West Trenton, NJ 08628.

Enterprise Response to Safety Improvement Costs:

Enterprise experienced no additional cost to amend the programs and procedures provided in response to this letter other than the normal cost of personnel time.

Should you have any questions, require further information in connection with the above or wish to discuss this matter in greater detail, please do not hesitate to contact our office. Enterprise welcomes the opportunity to discuss this response with PHMSA if further clarification is required.

Sincerely,



Graham W. Bacon
Executive Vice President, Operations & Engineering

Attachments

- Engineering Standard 8503, General Requirements for Third Party Inspectors (Excerpt)
- AOC Responder Form

- Enterprise Records Retention Schedule (Excerpt)
- CPM O&M LD1400, Computational Pipeline Monitoring Operations and Maintenance Manual
- CPM O&M LD1402, CPM System Design
- CPM O&M LD1405, Leak Detection System Classification and Target Thresholds Performance Targets
- CPM O&M LD1407, CPM Annual Review
- O&M Procedure 703, Pipeline Leak Detection
- O&M Procedure 801, Control Room Operations (Excerpt)
- O&M Procedure 1305, Overpressure Safety Devices (Excerpt)
- O&M Procedure 1307, Breakout Tanks (Excerpt)
- Safety Policies Manual Section 5.2, Fire Protection