



Patricia A. Totten  
Vice President  
General Counsel and Secretary

March 30, 2007

R.M Seeley, Director  
Southwest Region  
Pipeline and Hazardous Materials Safety Administration  
U.S Department of Transportation  
8701 South Gessner, Suite 1110  
Houston, TX 77074

Re: Notice of Amendment dated November 29, 2006 (the "Notice")  
TEPPCO  
CPF No. 4-2006-5048M

Dear Mr. Seeley:

The following response to the Notice is hereby submitted on behalf of TEPPCO. References are to the numbered items in the Notice and regulatory provisions cited therein. By submitting this response, TEPPCO expresses no view of and shall not be deemed to have made any admission as to the validity or enforceability of the regulatory interpretations upon which the Notice was based.

For the items cited in the Notice, TEPPCO had prepared revised procedures and submitted them as part of the previous response dated December 28, 2006; however, because of the complexity and size of the pipeline integrity program, the migration from the TEPPCO Integrity Management Program which is referenced in the Notice to a new Integrity Management Program, and the development of the requisite documentation, TEPPCO was unable to complete responses to all of the alleged inadequacies in the Notice prior to the original response deadline included in the Notice. To the extent that its previous responses were incomplete, TEPPCO has prepared revised procedures and encloses them as part of this response.

PHMSA NOA Item 1:

TEPPCO must modify IM procedures to address the requirements for segment identification of category 3 pipelines.

1100 Louisiana Street - Suite 1600  
Houston, Texas 77002-5227  
P.O. Box 2621  
Houston, Texas 77252-2621  
Office 713.381.3900  
Facsimile: 713.381.3957  
Email: patotten@teppco.com



TEPPCO Partners, L.P.  
Texas Eastern Products Pipeline Company, LLC, General Partner

TEPPCO Response:

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the previously submitted Section 1 "Segment Identification" process addresses the requirements for segment identification of category 3 pipelines. Subsection 1.10 states "Segment identification will be performed on all Category 3 pipelines in accordance with the appropriate segment identification procedure(s) prior to placing them into operation. If the segment identification can not be performed prior to placing a segment into operation the segment identification will be performed as soon as practical and, in the interim, it will be assumed that 100% of the segment could affect an HCA."

PHMSA NOA Item 2A:

TEPPCO must modify IM procedures to include documentation of a justification for the use of 35 miles as the downstream distance of water transport used in identifying which pipeline segments could affect an HCA. TEPPCO utilizes a basic water transport analysis assumption of 35 miles in all cases to identify whether a downstream HCA could be affected, TEPPCO stated during the inspection that the basis for 35 miles was stated as coming from OPA techniques and was described as a nominal eight hour response time at 4 mile/hour, rounded up to 35 miles. This justification should include a comparison with TEPPCO historical leak events to ensure the results of the process bound actual events.

TEPPCO Response:

TEPPCO utilized the Bass-Trigon RiskCAT Analysis in modeling its pipeline could affect zones. Within the attached documentation for this industry accepted model, incorporated into the IMP by reference, Bass-Trigon states the following:

The Direct and Indirect Watershed Analyses proceed for up to thirty-five miles. The distance was derived based on an assumed average stream velocity of 4 mph and a maximum response time of 8 hours to place product containment booms ( $4 \times 8 = 32$ , rounded to 35 miles).

TEPPCO has reviewed eight of its more recent incidents, going back to the year 2000, to determine if the 35 mile distance had indeed proved to be adequate. In all cases reviewed no product or sheen was observed beyond approximately 6 miles, see attached documentation. Some of the cases even involved unprecedented events such as a 10 inch rainfall during the clean-up effort. Our analysis efforts therefore lead us to believe that the 35 mile downstream distance is more than adequate for the risk model.

PHMSA NOA Item 2B:

TEPPCO must modify IM procedures to include consideration of explosive overpressure effects and the effects of cold weather on transport modeling in justification for the one mile buffer used in determining which highly volatile liquid (HVL) pipeline segments could affect an HCA. TEPPCO applies the same one mile buffer for air dispersion as for other transport mechanisms. Jet flame and plume analyses are examined for determination of the adequacy of the one mile buffer. HVL commodities transported by TEPPCO include propane, butane, and isobutene; and

overpressure effect analysis must be considered and documented in the IMP by TEPPCO to determine whether overpressure effects might represent an increase in the affected area as compared with the one mile buffer. When considering overpressure effects, the particular overpressure used for buffer determination should be conservatively based on damage estimates from a technically justified resource. For instance, the ARCHIE manual includes explosion overpressure damage estimates ranging from .03 psig to 29.0 psig which shows that, generally, overpressure of 1.0 psig or greater result in damage to structures which could result in human consequences.

TEPPCO Response:

TEPPCO's response in consideration of explosive overpressure effects was previously submitted.

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the attached IMP-SEC1-01 "Procedure for Identifying HCAs and HCA Segments" addresses the consideration of the effects of cold weather on transport modeling. TEPPCO has funded and initiated a project to perform HCA Segment Identification for all applicable TEPPCO operated pipeline assets per IMP-SEC1-01 "Procedure for Identifying HCAs and HCA Segments."

PHMSA NOA Item 3A:

TEPPCO must modify IM procedures to document the process of data integration in sufficient detail to ensure consistent application. At the time of the inspection TEPPCO indicated that the primary mechanism to integrate other pipeline integrity information with assessment results was the preventative and mitigative (P&M) process. After an assessment is completed, the intent is to combine assessment data with other data such as CP data, pipe-to-soil readings, HCA data, etc., during the P&M process (e.g., overlay one call data with dents, etc.) During the inspection, ongoing work was noted on methods to overlay sequential in-line inspections (ILI). The implementation of a GIS should assist this effort. The actual process of performing this data integration, however, must be documented within TEPPCO's IMP. Documentation of the process for identifying information that must be considered in P&M/information analysis meetings and documentation of conclusions (meeting minutes, etc.) must also be included in the IMP.

TEPPCO Response:

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the previously submitted IMP-SEC6-01 "Information Analysis" procedure addresses the process of data integration

PHMSA NOA Item 3B:

TEPPCO must modify IM procedures to include the process for interacting with ILI vendors regarding anomaly sizing to assure that those responsible for conducting ILI integrity assessments understand their responsibilities in performing integrity assessments.

R.M. Seeley, Director

March 30, 2007

Page 4

TEPPCO Response:

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the previously submitted IMP-SEC3-01 "ILI Data Analysis and Reporting Procedure" addresses the process for interacting with ILI vendors. Specifically subsection 2.3 ("ILI Vendor reporting criteria") outlines TEPPCO's requirements for the ILI tool vendors regarding the reporting of features.

PHMSA NOA Item 4A:

TEPPCO must modify IM procedures to include consideration of stress corrosion cracking (SCC) in the integrity assessment selection process.

TEPPCO Response:

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the previously submitted IMP-SEC2-01 "Integrity Assessment Method Selection Procedure" addresses the consideration of stress corrosion cracking (SCC) in the integrity assessment method selection process.

PHMSA NOA Item 4B:

TEPPCO must modify IM procedures to include documentation of the process used for consideration of ILI tool tolerance when reviewing anomaly data. ILI tool tolerances are relevant information that must be integrated in the identification and categorization of anomalies that can affect an HCA for remediation per the repair criteria in 195.452(h)(4).

TEPPCO Response:

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the attached IMP-SEC3-02 "ILI Report Analysis Procedure for HCAs" addresses the consideration of ILI tool tolerance when reviewing anomaly data.

PHMSA NOA Item 5:

TEPPCO must modify IM procedures regarding pressure reduction including the use of section 451.7 of ASME/ANSI B31.4 as required by 195.452(h)(4)(i) to provide sufficient detail to ensure consistent application. TEPPCO's SIGS document stated that pressure reductions shall not exceed 365 days unless OPS is notified otherwise, and that reductions in operating pressure must be calculated in accordance with the methods listed in 452(h)(4)(i). Specific direction to apply rule-required ASME B31.4 Section 451.7 for the amount of pressure reduction for immediate conditions was not referenced and was not utilized in the cases reviewed. Instead, pipeline repair reports and assessment reports that involved immediate condition pressure reductions indicated that a standard 20% pressure reduction from recent historical operating pressure was applied.

TEPPCO Response:

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the previously submitted IMP-SEC3-03 "Operating Pressure Procedure" addresses temporary reductions of operating pressure setpoints to ensure pipeline segments are not operated at pressures above safe limits.

PHMSA NOA Item 5B:

TEPPCO must modify IM procedures to clarify the process for consideration of rule-required “other” repair conditions, making sure to distinguish between the rule-required “other” repair conditions from TEPPCO’s internal definition of “other” repair conditions where differences exist.

TEPPCO Response:

TEPPCO identified the rule-required “other” repair conditions outlined in 49 C.F.R. Pt. 195, Appendix C, Section VII, under Section 7: Pipeline Repair Strategy of the TEPPCO Integrity Management Program (IMP) Manual as follows:

***Other Conditions***

TEPPCO will evaluate and determine the need for repair of the following pipeline conditions that could affect HCAs. If needed, these repairs will be scheduled for repair after the completion of repairs defined as immediate, 60-day, and 180-day conditions per 49 CFR §195.452(h).

- Data that reflect a change since the previous assessment
- Data that indicate mechanical damage
- Anomalies that are abrupt in nature
- Longitudinal anomalies
- Anomaly(s) that encompass a large area
- Anomalies in casings, at pipeline crossings, or in areas with suspect CP

Section 7: Pipeline Repair Strategy of the TEPPCO IMP Manual is attached.

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the previously submitted IMP-SEC3-02 “ILI Report Analysis Procedure for HCAs” addresses “other” repair conditions. In this procedure under Section 2.2 – Report Data Analysis, all items identified under 49 C.F.R. § 195.452(h)(4) are addressed, including § 195.452(h)(4)(iv) which concerns “other” repair conditions.

PHMSA NOA Item 6:

TEPPCO must modify IM procedures to include consideration of rule-required EFRD evaluation factors “potential for ignition”, “proximity to power sources”, and “location of the nearest response personnel.” TEPPCO’s IMP Section 9 on page 8 contains discussion of additional valves, including block, check, and EFRDs. The Inspection Team noted that P&M evaluation folders which were reviewed included several recommendations to add additional valves. With respect to consideration of rule-required factors when carrying out an EFRD needs analysis, TEPPCO stated that these are included in the IAP model. For example, “potential for ignition” was noted by TEPPCO as being a function of the transported commodity. Factors “nearest response personnel” and “proximity to power sources” were stated by TEPPCO as being part of common sense process, but not explicitly addressed in the process. The IMP contained guidance with respect to limitations of EFRDs, including reliability and potential negative effects. Consideration should be given to operations other than steady state (e.g., transient, start-up, shut-

R.M. Seeley, Director

March 30, 2007

Page 6

down) in the EFRD needs analysis, although transient conditions were included in a general manner in the IMP Section 9 "limitations" paragraph.

TEPPCO Response:

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the previously submitted IMP-SEC6-01 "Information Analysis" procedure addresses the rule-required EFRD evaluation factors. Sub-section 2.2.6 specifically addresses the evaluation of installing additional EFRDs.

PHMSA NOA Item 7A:

TEPPCO must modify IM procedures to require documentation of the basis for changes in the BAP change log.

TEPPCO Response:

The TEPPCO IMP is in the process of being migrated to a new IMP. In the new IMP, the previously submitted IMP-SEC0-01 "IMP Change Request Procedure" addresses the documentation for changes in the Integrity Management Program (IMP), including the BAP.

PHMSA NOA Item 7B:

TEPPCO must modify IM procedures to include the risk analysis database/model in the IMP Section 14 integrity management documentation retention table.

TEPPCO Response:

The TEPPCO IMP is in the process of being migrated to a new IMP. In the TEPPCO IMP, the attached Section 5 "Risk Assessment Process" has been modified to address document retainage relative to the risk analysis database/model. This section of the TEPPCO IMP will be incorporated into the new IMP.

TEPPCO appreciates having the opportunity to respond to the Notice and looks forward to continuing to work with the Pipeline and Hazardous Materials Safety Administration to assure the safe operation of our pipelines. In conjunction with an amended and restated administrative services agreement, EPCO performs all management, administrative and operating functions required for us and you should continue to work with Chip Brabson and his team who provide engineering services to TEPPCO. Please let me know if you have any questions.

Sincerely yours,



Patricia A. Totten  
Vice President & General Counsel

Enclosures

cc: Charles M. Brabson

Michael Palmer w/encls.