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September 28, 2011

Mr. Byron Coy
Director, Eastern Region
Pipeline and Hazardous Materials Safety Administration
820 Bear Tavern Road, Suite 103
West Trenton, NJ 08628

RE: CPF 1-2011-1012M
Response to Notice of Amendment
Spectra Energy

Dear Mr. Coy,

During the week of November 29, 2010, representatives the Pipeline and Hazardous Materials Safety Administration (PHMSA) conducted an inspection of Spectra Energy's (Spectra) Operations and Maintenance (O&M) Procedures in Houston, Texas. During this inspection, PHMSA identified seventeen (17) apparent inadequacies in Spectra's O&M Procedures, and issued a Notice of Amendment (NOA) on June 13, 2011. This letter is our response to the NOA.

Spectra has revised its procedures, and is providing additional existing procedures not reviewed during the inspection, as needed to address the issued identified in the NOA. The following is our response to each issue. The revised procedures are enclosed.

1. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

On page 4 of *Operations and Maintenance Plan*, Spectra stated it may "revise and or issue required revisions of maps and schematics within a time frame which is both expeditious and ensures the Company personnel continue to operate the pipeline safely." Therefore, Spectra failed to specify a time frame in meeting this requirement.

Spectra Response

The *Operations and Maintenance Plan* has been revised to specify the following timeframes:

- Diagrammatics (schematics) for new or modified pipeline facilities will be revised and made available to operating personnel prior to pressurization of the new or modified facilities.
- Construction records shall be transmitted to the Facilities Records Group within six (6) months of the in-service date for a new or modified facility and specifies that the records be made available to operating personnel upon request, both before and after the records are transmitted to the Facility Records Group. The revised *Operations and Maintenance Plan* is attached.

See page 3 of the revised *Operations and Maintenance Plan* (enclosed).

2. §192.613 Continuing surveillance.

PHMSA Finding

During the inspection, a PHMSA representative requested Spectra to provide its continuing surveillance procedures. Spectra provided a copy of its *Standard Operating & Maintenance Procedures 1-6040, Aerial Pipeline Patrol.* The procedure only addressed aerial surveillance, which did not adequately address the surveillance of all risk elements prescribed in §192.613(a).

Spectra Response

Spectra does have Standard Operating Procedures (SOPs) that cover the risk elements prescribed in §192.613(a). PHMSA reviewed many of these SOPs during the O&M Plan Inspection as these SOPs addressed other sections in Part 192, or during the Integrity Management Plan Inspection conducted by PHMSA earlier in 2010. However, Spectra personnel did not provide these SOPs during the review of §192.613(a). Spectra believes these other SOPs fully address this finding. The following is a summary of the additional SOPs that should have been reviewed to address §192.613(a).

Class Location: The process of managing changes in class location is detailed in Administrative Procedure – AP-CD1.2, *Evaluating Class Location Changes*. AP-CD1.2 was reviewed in detail during the inspection. A copy of this procedure is available upon request.

A system of continuing surveillance of the pipeline system for changes in population density is provided in:

- SOP # 1-6020 *Leakage Surveys Utilizing Gas Detection Equipment* – Page 6 of 7 – "Other Signs of Leaks or Damage", and
- SOP # 1-6040 *Aerial Pipeline Patrol* – Pages 1-8

Failures: As part of the process of investigating failures, written instructions are provided that require the consideration of actions that might reduce the likelihood of recurrence as in

SOP # 5-2030, *Investigation of Failures* – Page 6 of 9 – "Investigation" and "Recommendations"

Leakage History: Various methodologies are in place that provide for accumulating leakage history. Most notably is the internal reporting and record keeping process associated with gathering information necessary to complete the annual report submitted to PHMSA (F 7100) by the Operational Compliance Department personnel. On a day-to-day basis, all leaks or failures are reported internally so that responsible personnel can determine the significance of the event and whether or not it is necessary to advise agencies of the state and federal government. Refer to SOP # 5-2060, *DOT-BOEMRE INCIDENT REPORTING.*

Corrosion: Spectra Energy has a significant corrosion control program for all gas piping that meets or exceeds the minimum requirements of 49 CFR Part 192 regulations as evidenced by numerous SOPs and Guidelines that are routinely audited by PHMSA. Many of these SOPs were reviewed during the inspection. Copies are available upon request.

Substantial Changes in Cathodic Protection Requirements: The adequacy of cathodic protection is assessed on buried and submerged piping as demonstrated in SOP # 2-2180, *Annual Corrosion Control Surveys* – Page 5 of 8 where it is necessary to review the data collected and propose remedial action, as warranted, on Forms 7T-60-1,2.

Other Unusual Operating and Maintenance Conditions:
Aside from pipeline inspections for damage and other threats to integrity required by 49 CFR Part 192 Subpart O, Spectra has established a culture of being continuously aware of the facilities and their environment for situations that could impact the safe operation of the pipeline. Demonstrations of some of these operational characteristics are found in:

- SOP # 1-5010 *Right of Way Maintenance* – Page 6 of 6 – " Identifying Unsafe Conditions",
- SOP # 1-5010 "*Right of Way Maintenance*" – Page 3 of 6 – "Erosion Control Measures",
- SOP # 1-6010 "*Pipeline Patrol and Leakage Survey Frequency Criteria*" – Page 1 of 7 – "NOTE",
- SOP # 1-6020 "*Leakage Surveys Utilizing Gas Detection Equipment*" – Page 6 of 7 – "Other Signs of Leaks or Damage", and
- SOP # 1-6050 *Pipeline River and Waterway Crossing Surveys* – Pages 1-13

The *O&M Compliance Registry* has been revised to include the applicable procedures. The revised *O&M Compliance Registry* and applicable SOPs are enclosed.

3. §192.615 Emergency plans.

PHMSA Finding

Spectra's *Standard Operating & Maintenance 5-2010* was inadequate because the procedure failed to state the individual(s) responsible for the task and the methodology employed in meeting the requirements in the local Emergency Plans.

Spectra Response

The individual(s) responsible for each task and the methodology employed in meeting the requirements in the Area Emergency Plans are defined in the *U.S. Operations Crisis Management Plan*. However, Spectra did not provide a copy of the *U.S. Operational Crisis Management Plan* for review to address this issue during the inspection. SOP # 5-2010, *Area Emergency and Security Procedures*, has been revised to include a reference to the *U.S. Operational Crisis Management Plan* for guidance on responsibilities and methodologies. See page 1 of SOP # 5-2010 (enclosed).

The *U.S. Operational Crisis Management Plan* is enclosed for reference.

4. §192.615 Emergency plans.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 5-2010* was inadequate because the emergency plan failed to specify which equipment would be available at a site-specific facility and which would be required from contractors in the event of an emergency. Subsequently, Spectra failed to provide a list of contractors' name and contact number in the local Emergency Plans.

Spectra Response

It is impracticable to specify in the Area Emergency Response Plan what Company specific equipment would be available at a site-specific emergency and what equipment would be required from contractors. Company equipment may be deployed to remote locations or unavailable due to maintenance or other reasons at the time of an incident and therefore would be unavailable to be used in the response. The equipment to be provided by the Company and contractors would have to be determined at the time of the incident dependent on factors noted above.

A practicable method to address this issue is to include in each Area Emergency Response Plan a list of Company equipment within that Area and a list of contractors and the types of

equipment and resources they can provide. The list of contractors should provide for an adequate number of contractors to assure the required resources are available to respond to an emergency at any location within the Area.

SOP 5-2010, *Area Emergency and Security Procedure*, has been revised to include a requirement to maintain a list of Company equipment and a list of contractors that may be utilized to respond to an emergency, including contractor contact information and equipment and resources available from each contractor. See page 2 of revised SOP 5-2010 (enclosed).

5. §192.615 Emergency plans.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 5-2010* was inadequate because the emergency plan failed to provide necessary steps pertaining to pressure reduction utilized as a tool to minimize hazards to life and property.

Spectra Response

SOP 5-2010, *Area Emergency and Security Procedures*, includes a requirement to identify emergency shutdown and pressure reduction in a section of the pipeline as necessary to minimize hazards to life or property. It is impracticable to identify all possible emergency response scenarios and the proper response to each in the SOPs. Each emergency response scenario is unique and an event specific response must be determined based on the situation.

A practicable approach to this issue is for Area Management and the Region Director of Technical Operations, or designee, to review the circumstances of the event and determine the appropriate shutdown and pressure reduction to address the specific event. SOP 5-2010 has been revised to include this requirement and a reference to the existing SOP 1-2010, *Gas Pipeline Shutdown*, for steps to be taken to shut down the pipeline. See page 3 of SOP 5-2010 (enclosed).

A copy of SOP 1-2010 is enclosed for reference.

6. §192.615 Emergency plans.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 5-2010* failed to adequately describe the notification and communication process with fire, police and other public officials during an emergency; that included the circumstances in which they would be

contacted and utilized in evacuating and isolating hazardous sites, rerouting vehicular traffic, and shutting down a segment of railroad that parallels a pipeline.

Spectra Response

Spectra's SOP 5-2010, *Area Emergency and Security Procedure*, includes a requirement to establish an Incident Command Structure in accordance with the *U.S. Operational Crisis Management Plan*. The *U.S. Operational Crisis Management Plan* provides detailed guidance on the Incident Command Structure, including responsibilities. Spectra personnel that may be required to respond to an emergency are trained in the use of the Incident Command Structure. It should be noted that the *U.S. Operational Crisis Management Plan* was not reviewed during the inspection.

SOP 5-2010 has been revised to define the circumstances in which fire, police and other public officials would be contacted and utilized in evacuating and isolating hazardous sites, rerouting vehicular traffic or shutting down a railroad. See page 3 of revised SOP 5-2010 (enclosed).

The *U.S. Operational Crisis Management Plan* is enclosed for reference.

7. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 9-4030, 9-4040 and 9-4050* was inadequate because the procedures failed to define which conditions deemed a pipeline unsafe. Also, there was no time period for mitigation of a pipeline segment that the operator deemed unsafe, as prescribed in §192.703(b).

Spectra Response

Spectra's SOPs contain very explicit guidance for response to conditions that may affect the integrity (safety) of the pipeline. These SOPs include the required response time and repair methodology for conditions that may affect the integrity (safety) of the pipeline. However, we did not provide all these SOPs for review during the inspection, and thus our response during the inspection was incomplete. The following SOPs provide a complete response to this finding.

9-2020	*External Corrosion Direct Assessment (ECDA)*
9-2030	*Dry Gas Internal Corrosion Direct Assessment (ICDA)*
9-2040	*Stress Corrosion Cracking Direct Assessment (SCCDA)*
9-2050	*Hydrostatic Testing for Stress Corrosion Cracking*

9-2070	*Assessment of Pipeline Segments Using Long Range Guided Wave UT*
9-3010	*Response to In-Line Inspection*
9-3020	*Monitoring and Mitigation (ECDA)*
9-4010	*Defect Assessment & Repair Options for Internal Corrosion*
9-4020	*Defect Assessment & Repair Options for External Corrosion*
9-4030	*Defect Assessment & Repair Options for SCC*
9-4040	*Defect Assessment & Repair Options for Dents and Mechanical Damage*
9-4050	*Defect Assessment & Repair Options for Miscellaneous Defects*
9-4060	*Magnetic Particle Inspection of Pipelines for Surface Cracks*
9-4070	*Ultrasonic Inspection of Line Pipe*
9-4110	*CorrEval Software & User's Guide*

Copies of these SOPs are enclosed. The Compliance Registry (enclosed) has been revised to properly reflect all the SOPs that address §192.703(b).

8. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 9-4030, 9-4040 and 9-4050* was inadequate because the procedures failed to define hazardous leaks and specify a timetable to perform repair(s) for hazardous leaks, as prescribed in 192.703(c).

Spectra Response

Spectra had not defined hazardous leaks in the SOPs because the current SOPs require all leaks be repaired "as soon as practical". Classification of leaks seems to be more of an issue for distribution systems, where there are a large number of leaks to address. Classifying leaks seems to have little value when all leaks are repaired expeditiously.

It is also impracticable to specify a definitive timeframe for repair of leaks. That is dependent on numerous issues beyond Spectra's control, including site accessibility, equipment and manpower availability, availability of divers for offshore leaks, etc.

To address PHMSA's finding, Spectra has revised SOPs 9-4030, 9-4040 and 9-4050 to provide additional definition of "as soon as practical". SOP 5-2010, *Area Emergency and Security* Procedures, has been revised to provide guidance in the unlikely event of simultaneous leaks. These revised SOPs are enclosed.

9. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 1-5020* was inadequate because the procedure failed to require a time period to repair or replace a line marker in accordance with §192.707(a)(1) and (2).

Spectra Response

SOP 1-5020, *Pipeline Facilities Identification*, has been revised to specify damaged or missing pipeline markers shall be replaced within 30 days unless that timeframe cannot be met due circumstances beyond the Company's control, such as weather, right-of-way access or permitting issues. See page 7 of revised SOP 1-5020 (enclosed).

10. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 5-6020 and 5-7010* was inadequate because the procedure failed to provide additional guidance during the annual inspection of relief valves, particularly pressure build-up of each relief valve to achieve full open status on the pipeline system in the determination of the relief valve set point, in accordance with §192.739(a)(3).

Spectra Response

Spectra has revised SOP 5-6020, *Overpressure Protection and Capacity Verification*, to provide guidance for consideration of the pressure build-up for relief valves to achieve full open status in the determination of the relief valve set point. See page 4 of revised SOP 5-6020 (enclosed).

11. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

As prescribed in §192.743(b), after the initial capacity calculations, subsequent calculations need not be made if the annual review documents that parameters have not changed to cause the rated or experimentally determined relieving capacity to be sufficient. Spectra's *Standard Operating & Maintenance Procedure 5-6010* was inadequate because the procedure failed to specify the documentation requirement when the parameters are unchanged.

Spectra Response

Spectra currently utilizes the Maximo work management system to document the annual review of relief valve capacity. The Maximo "work order" will be revised to document whether the parameters have changed. SOP 5-6010, *Overpressure protection and Capacity Verification*, has been revised to explicitly state the subsequent reviews will be documented in Maximo or other format approved by the Director, Operational Compliance. See page 28 of revised SOP 5-6010.

12. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 5-5010* was inadequate because the procedure did not define the word "prompt" pertaining to remediation of any valve found inoperable, in accordance with §192.745(b).

Spectra Response

SOP 5-5010, *Valve Inspection and Maintenance*, (enclosed) has been revised to specify a malfunctioning valve shall be remediated as soon as practical based on site accessibility, outage scheduling (if necessary), permits, required material, and availability of equipment and personnel to perform the work. See page 9 of revised SOP 5-5010 (enclosed).

13. §192.241 Inspection and Test of Welds.[1]

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure Volume 7 – Welding Section Number: 5 Section 5.13* pertainin g to welding procedures was inadequate because the procedure failed to provide any details in the training and experience required of individuals who perform visual inspection of welds, as prescribed in 192.241(a)(1) and (2).

Spectra Response

SOP Volume 7 - *Welding Section Number: 5, Section 5.13* has been revised to detail the training and experience required for individuals performing visual inspection of welds. See pages 8 and 9 of revised SOP Volume 7, *Welding Section Number 5*, enclosed.

14. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 2-2160* was inadequate because the procedure failed to require that each electrically insulating type of external coating must also have low moisture absorption and high electrical resistance, as prescribed in §192.461(b).

Spectra Response

SOP 2-2160, *Coating Systems for Buried or Submerged Piping*, (enclosed) has been revised to specify coatings shall have low moisture absorption and high electrical resistance where the external coating is an electrically insulating type.

15. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 2-2160 and 2-2180* was inadequate because the procedure failed to address the risk of damage to coating of a pipe from excessive cathodic protection, as described in §192.463(c).

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[1] The NOA reflected Finding #13 as being related to §192.225, Welding Procedures. However, the finding is actually related to §192.241, Inspection and Test of Welds. Spectra has revised this reference to reflect the correct regulatory section.

Spectra Response

SOP 2-2180, *Annual Corrosion Control Surveys*, has been revised to address the risk of damage to pipe coating from excessive cathodic protection. See page 6 of revised SOP 2-2180, enclosed.

16. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

Pursuant to §192.469, an operator must have each pipeline under cathodic protection required by this subpart, have sufficient test stations or other contact points for electrical measurement to determine the adequacy of cathodic protection.

Spectra's *Standard Operating & Maintenance Procedure 2-2180*, required test stations to be placed at intervals less than a mile. Spectra failed to suggest vulnerable points which become apparent from Close-Interval Survey (CIS) or In-Line Inspection (lLI) runs or more obvious locations which could promote corrosion activity.

Spectra Response

SOP 2-2180, *Annual Corrosion Control Surveys*, (enclosed) has been revised to specify results of close interval surveys or in-line inspections shall be taken into consideration in determining the need for additional test points. See page 2 of revised SOP 2-2180 (enclosed).

17. §192.605 Procedural manual for operations, maintenance, and emergencies.

PHMSA Finding

Spectra's *Standard Operating & Maintenance Procedure 2-5020* was inadequate because the procedure failed to require a time frame to remediate atmospheric corrosion, after atmospheric corrosion is determined to need remediation, as prescribed in §192.481(c).

Spectra Response

SOP 2-5020, *Atmospheric Pipe Inspection*, has been revised to include a time frame for remediating atmospheric corrosion. See page 4 of revised SOP 2-5020 (enclosed).

The procedures described above are enclosed. We trust that you will find the revisions to these procedures and the additional procedures provided fully address the issues noted in the NOA and you will consider this matter closed.

Please call Rick Kivela at (713) 627-6388 if you have any questions or comments.

Sincerely,

J. A. Drake, P.E.
Vice President, Asset Integrity

Enclosure