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May 23, 2012

Mr. Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration
12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

Re: CPF 5-2012-6015M

Dear Mr. Hoidal,

We are writing in response to your April 19, 2012 Notice of Amendment Letter, which we received on April 23, 2012. Your Notice of Amendment letter listed certain items of concern based upon a Liquid Integrity Management Program (IMP) inspection conducted September 27-28, 2011. As we discussed with your representative at the inspection, we are committed to the safe and compliant operation of our pipelines, and we appreciate your efforts in helping us to achieve this goal. In this response we are exercising option II.c. of the document entitled 'Response Options for Pipeline Operators in Compliance Proceedings' whereby we are contesting the alleged inadequacies without requesting an oral hearing. Below you will find our written explanations and supporting information organized in the same format as in the referenced Notice of Amendment letter with your concerns restated in bold font. Please note the level of detail in our response is predicated upon the fact that our written IMP documents were submitted to your representative at the inspection and remain in your possession as supplemental information to our response.

- 1. §195.452 Pipeline Integrity Management in High Consequence Areas.**
Devon's Integrity Management Program (IMP) is in adequate because the risk analysis program does not properly address the nine (9) threat categories listed in §195.452(e)(1). At the time of inspection, Devon's risk analysis had not assigned risk factors for the pipeline defects found in the past. Each defect must, at a minimum, be evaluated to see if they can be attributed to the listed threat categories. Devon is also required to see if there are other threat factors beyond the nine prescribed ones that may be unique to the Beaver Creek pipeline. A defect associated with a specific threat factor may indicate a future systemic risk that could occur on other parts of the pipeline unless that threat factor is mitigated. Devon must amend their IMP Manual to include all relevant important risk factors that might constitute a threat to the Beaver Creek pipeline's integrity as required by §195.452(e) so they can develop a proper pipeline assessment schedule.

We believe our technical approach to risk analysis is consistent with API 1160, PHMSA regulations and guidance, and current industry practices. Our IMP employs two levels of risk factor considerations in developing an assessment schedule. The first is the annual risk analysis conducted on all could affect pipeline segments included in the IMP. Devon Subject Matter Experts (SMEs) with knowledge of the threats to its pipeline segments participate in developing the risk algorithm and identifying risk factors. The risk algorithm addresses the risk factors prescribed by §195.452(e)(1) in part as follows:

- (i) Results of the previous integrity assessment, defect type and size that the assessment method can detect, and defect growth rate;
 - Assessment Age in the External Corrosion (EC), Internal Corrosion (IC), Third Party (TP), Manufacturing (MFG), Stress Corrosion Cracking (SCC) and Weather and Outside Force (WOF) threat categories.
 - Coating Condition, External Pipe Condition, Percent Wall Loss, Casing Short, External Metal Loss ERF, External Coating Type in the EC threat category
 - Mill Loss/year, Wall Thickness in the IC threat category
 - Anomaly Orientation, Anomaly Type in the TP threat category
 - External Pipe Condition, ILI Survey Type, Coating Condition, ILI Anomaly Type, Anomaly Type - Field Found, External Corrosion Presence in the SCC threat category
 - Repair/Mitigation Type in the WOF threat category
- (ii) Pipe size, material, manufacturing information, coating type and condition, and seam type;
 - Nominal Wall Thickness in TP, IC, EC, and WOF threat categories; Material Toughness, Pipe Age in the MFG threat category; External Coating Type and Coating Condition in the SCC and EC threat categories; Long Seam Weld Type in the IC, SCC, MFG and EC threat categories.
- (iii) Leak history, repair history and cathodic protection history;
 - Incident Age in the Construction (CONS), EC, Equipment (EQ), IC, Incorrect Operation (IO), MFG, SCC, TP and WOF threat categories. Repair/Mitigation Type in the WOF threat category. Cathodic Protection History in the EC threat category.
- (iv) Product transported;
 - Product Type in the Impact on Population (IOP) and Impact on Environment (IOE) consequence categories
- (v) Operating stress level;
 - MOP vs. Pipe Strength in the CONS, EC, IC, IO, MFG, SCC, TP and WOF
- (vi) Existing or projected activities in the area;
 - Construction Activity Level, Excavation Activity Level, Farm Activity Level and One Call Activity Level in the TP threat category
- (vii) Local environmental factors that could affect the pipeline (e.g., corrosivity of soil, subsidence, climatic);
 - Weather Forces, Pipe below Frostline, Soil Type, Ground Movement, Climate Rainfall and WOF Failure Frequency in the WOF threat category
- (viii) Geo-technical hazards; and
 - Weather Forces, Pipe below Frostline, Soil Type, Ground Movement, Climate Rainfall in the WOF threat category
- (ix) Physical support of the segment such as by a cable suspension bridge.
 - Cover Depth, Cover/Surface Type in the TP threat category
 - Soil Type (has above ground option) in the SCC and WOF threat categories

The second level of risk factor consideration pertains to SME review during preventive and mitigative measures (P&MM) evaluation and assessment planning activities. As stated in the IMP, P&MM review and assessment planning is conducted each year. The forms employed in these reviews gather information pertaining to the nine (9) risk factor categories prescribed in §195.452(e)(1), and they facilitate SME consideration of any additional and/or previously unidentified threats. A summary of the information considered in the P&MM and assessment planning activities as they pertain to each of the risk factors prescribed by §195.452(e)(1) is listed as follows:

- (i) Results of the previous integrity assessment, defect type and size that the assessment method can detect, and defect growth rate;
 - *Previous Assessments* in DGSForm602: *Assessment Planning*
 - *Most Recent Assessment Results* in DGSForm606: *Hazardous Liquid P&MM Evaluation*
- (ii) Pipe size, material, manufacturing information, coating type and condition, and seam type;
 - *Risk Analysis Results and Pipeline Attributes* in DGSForm606: *Hazardous Liquid P&MM Evaluation*
- (iii) Leak history, repair history and cathodic protection history;
 - *Risk Analysis Results and Other Information and Data Inputs* in DGSForm606: *Hazardous Liquid P&MM Evaluation*
- (iv) Product transported;
 - *Risk Analysis Results and Pipeline Attributes* in DGSForm606: *Hazardous Liquid P&MM Evaluation*
- (v) Operating stress level;
 - *Risk Analysis Results and Pipeline Attributes* in DGSForm606: *Hazardous Liquid P&MM Evaluation*
- (vi) Existing or projected activities in the area;
 - *Other Information and Data Inputs* in DGSForm606: *Hazardous Liquid P&MM Evaluation*
- (vii) Local environmental factors that could affect the pipeline (e.g., corrosivity of soil, subsidence, climatic);
 - *Risk Analysis Results and Other Information and Data Inputs* in DGSForm606: *Hazardous Liquid P&MM Evaluation*
- (viii) Geo-technical hazards; and
 - *Risk Analysis Results and Other Information and Data Inputs* in DGSForm606: *Hazardous Liquid P&MM Evaluation*
- (ix) Physical support of the segment such as by a cable suspension bridge.
 - *Risk Analysis Results and Other Information and Data Inputs* in DGSForm606: *Hazardous Liquid P&MM Evaluation*

With respect to identifying risk factors beyond the nine (9) prescribed by §195.452(e)(1), section 5: *Identified Threats* and section 8: *Other Information and Data Inputs* of DGSForm606: *Hazardous Liquid P&MM Evaluation* provide for SMEs to identify risk factors that were not previously predicted by the quantitative risk analysis. Furthermore, DGSForm606 provides

guidance to review the risk analysis and the risk algorithm when a previously unidentified threat is identified by SMEs as it may warrant revisions to the risk algorithm to ensure such risk factors are predicted in the future.

2. **§195.452 Pipeline Integrity Management in High Consequence Areas.**
Devon's IMP does not have adequate risk analysis process that properly addresses the potential risk to human health and environment. §195.452(i)(2) Risk analysis criteria states, "In identifying the need for additional preventive and mitigative measures, an operator must evaluate the likelihood of a pipeline release occurring and how a release could affect the high consequence area. This determination must consider all relevant risk factors, including, but not limited to:

- (i) Terrain surrounding the pipeline segment, including drainage systems such as small streams and other smaller waterways that could act as a conduit to the high consequence area;
- (ii) Elevation profile;
- (iii) Characteristics of the product transported;
- (iv) Amount of product that could be released;
- (v) Possibility of a spillage in a farm field following the drain tile into a waterway;
- (vi) Ditches alongside a roadway the pipeline crosses;
- (vii) Physical support of the pipeline segment such as by a cable suspension bridge;
- (viii) Exposure of the pipeline to operating pressure exceeding established maximum operating pressure."

At the time of inspection, Devon's risk analysis did not include consequence risk factors for how a pipeline release would affect human safety and protected species, e.g. protected raptors. Therefore, Devon must amend their risk analysis criteria to include consequence risk factors for human safety and protected species as required by Part §195.452(i)(2).

We believe our risk analysis algorithm as inspected and as it stands today adequately addresses human safety and protected species in the Impact on Population (IOP) and Impact on Environment (IOE) consequence of failure (COF) categories. Each of these categories includes factors based on identified high consequence areas (HCAs). Specifically, the consequence factors addressing human safety and protected species are as follows:

- HCA Type, Proximity to HCA in IOP and IOE consequence categories

We appreciate your consideration of the information in this letter and we believe that these items of concern have been resolved by our response. However, we remain open to further discussion. Please do not hesitate to contact Ryan Dillman at Ryan.Dillman@dvn.com or (405)228-7715 if you have any questions or need additional information.

Sincerely,

Devon Gas Services, LP



Tracy Carter
Regional Vice-President