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**Perry Michael Hoffman**  
Manager – System Integrity

March 27, 2014

Mr. Byron E. Coy, PE  
Director, Eastern Region  
United States Department of Transportation  
Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety  
Eastern Region – New Jersey District Office  
820 Bear Tavern Road, Suite 103  
West Trenton, NJ 08628

**RE: CPF 1-2014-3002 – Columbia Gas Transmission, Notice of Probable Violation, Proposed Civil Penalty and Proposed Compliance**

Dear Mr. Coy:

This letter is provided on behalf of Columbia Gas Transmission L.L.C. (Columbia Gas) in response to the Notice of Probable Violation, Proposed Civil Penalty and Proposed Compliance Order CPF 1-2014-3002 (NOPV), dated February 27, 2014 and received on February 28, 2014. The NOPV was issued following inspections conducted in November 2012 of the Columbia Gas LNG plant in Chesapeake, VA. The NOPV alleges that the fire protection system was not compliant with 49 CFR Sections 193.2801 and 193.2013, proposes a civil penalty of \$28,800 and proposes a compliance order for item 1.

This communication addresses both the findings detailed within the NOPV and the requirements specified in the accompanying Compliance Order.

The language from the NOPV and the Proposed Compliance Order is provided in bold below, followed by our response.

**NOPV**

**1. § 193.2801 Fire Protection**

**(b) Each operator must provide and maintain fire protection at LNG plants according to sections 91. Through 9.7 and section 9.9 of NFPA 59A (incorporated by reference, see Sec. 193.2013).**

**CGT failed to maintain fire protection at the Chesapeake LNG facility, according to sections 9.1 through 9.7 and section 9.9 of NFPA 59A (incorporated by reference, see Sec. 193.2013).**

**NFPA 59A paragraph 9.3.2 states that “Continuously monitored low-temperature sensors or flammable gas detection systems shall sound an alarm at the plant site and at a constantly attended location if the plan site is not attended continuously. Flammable gas detection systems shall activate an audible and visual alarm at not more than 25 percent of the lower flammable limit of the gas or vapor being monitored.”**

**In correspondence with the CGT staff, and a review of related records, it was established that CGT used 25% LEL methane gas in its calibration of gas detectors that were being used to monitor refrigerant gases ethane, propane, butane and pentane at the Chesapeake LNG facility. Therefore, CGT did not assure that the detectors will alarm at not more than 25% of the lower flammable limit for refrigerant gases other than methane.**

#### Columbia Gas Response

Two types of gas detectors, catalytic bead and infrared, are utilized at the Chesapeake LNG plant to detect refrigerant gases. In the summer of 2013, Columbia Gas, in coordination with the gas detection equipment manufacture, Mine Safety Appliance (MSA), conducted a study of the two types of gas detectors to determine a concentration of a single gas calibration of each type of detector that would ensure that the gas detectors would alarm at not more than 25% LEL for any of the refrigerant gases in the LNG plant. A copy of that study is included in Attachment A. Based upon the study, the procedures used to calibrate and test the gas detectors have been revised. A copy of the revised Procedure 310.036.002 Calibrate/Test – Refrigerant Catalytic Bead Gas Detector and Procedure 310.036.003 Calibrate/Test – Infrared Refrigerant Gas Detector is included in Attachment B. In addition, all of the gas detectors at the facility have been retested in accordance with the revised procedures. A map showing the location of gas detectors located at the LNG plant is included in Attachment C. A table showing the results of the gas calibration testing for the gas monitoring equipment is included in Attachment D.

#### Proposed Compliance Order

- 1. In regard to Item Number 1 of the Notice pertaining to the testing of the flammable gas detection system in the areas of the Chesapeake LNG Plant where exposure to leaking refrigerant gases may impact safety, Columbia shall prepare procedures to direct operating staff to calibrate instrumentation and to demonstrate through testing that the audible and visual alarms in these areas will be activated at a concentration less than or equal to 25% LEL of any flammable refrigerant gas or mixture of refrigerant gases that will be used in the facility.**

Columbia Gas Response

As noted above, Columbia Gas has revised its procedures for the calibration and testing of gas detectors used to detect refrigerant gases at the Chesapeake LNG Plant. Copies of these revised procedures are included in Attachment B.

- 2. Columbia shall forward to PHMSA, Eastern Region the procedures within 60 days of issuance of the Final Order.**

Columbia Gas Response

As noted above, copies of the revised procedures are included in Attachment B.

- 3. It is requested (not mandated) that Columbia maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Byron Coy, Director, Eastern Region, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analysis and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.**

Columbia Gas Response

Columbia Gas estimates that the total cost associated with the preparation/revision of plans, procedure, studies and analysis regarding to fulfilling this compliance order is approximately \$4,000. There were no physical changes or costs associated with changes to pipeline infrastructure associated with compliance with this Compliance Order.

Columbia believes that the actions taken fully address the issues raised in the NOPV and Proposed Compliance Order.

If you have any questions or would like additional information, please do not hesitate to contact me.

Sincerely,



Perry M. Hoffman  
Manager – System Integrity  
Columbia Pipeline Group