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October 13, 2011

Mr. David D. Lykken
Pipeline Safety Director
Washington Utilities and Transportation Commission
1300 S. Evergreen Park Dr. SW
Olympia, WA 98504-7250

RE: Docket PG-110040
2011 Standard Natural Gas Inspection – City of Ellensburg, Washington

Dear Mr. Lykken,

Please find attached the City of Ellensburg's response to your above referenced docket. I have taken the liberty of inserting your findings and then answering each in turn.

I understand that Item #1 on the probable violations has already been, and continues to be a subject of discussion with your staff. Should our response to this probable violation seem to be inadequate, I would request that a meeting be scheduled between my staff and yours to more completely understand and resolve the pipe storage issue.

Sincerely,

Robert J. Titus
Energy Services Director

cc: Ted Barkley, City Manager
Steve Prue, Gas Engineer
Darren Larsen, Gas Supervisor

The following probable violation(s) of Title 49, CFR Part 192 and WAC 480-93 were noted as a result of the inspection of the City of Ellensburg natural gas distribution system in Ellensburg, WA. The inspection included a random selection of records, operation and maintenance (O&M), emergency response and field inspection of the pipeline facilities.

1. **49 CFR §192.321 Installation of plastic pipe.**

(g) Uncased Plastic pipe may be temporarily installed above ground level under the following conditions:

(1) The operator must be able to demonstrate that the cumulative aboveground exposure of the pipe does not exceed the manufacturer's recommended maximum period of exposure or 2 years, whichever is less.

Finding(s):

During the field portion of the inspection, it was noted that the City of Ellensburg stores its plastic pipe outdoors with no UV protection. Several sections of pipe inspected exceed the two year exposure limit.

12.29.07 – 6in HDPE
02.17.08– 1in HDPE
12.23.07– ½ in HDPE
02.26.06 – ½ in HDPE
03.12.07 – ½ in HDPE

Pipe used for construction that exceeds two years total UV exposure will need to conform to the complete series of tests as specified by ASTM D2513-99.

The City of Ellensburg refutes this finding. The PE pipe in question was manufactured by Performance Pipe. Initially the recommendation for maximum exposure of the HDPE by Performance Pipe was "indefinite" but has subsequently been reduced recently from "indefinite" to "20 years" and then "10 years". The current maximum recommended exposure of 10 years is with the pipe meeting all the specified tests in ASTM D2513-99 and complying with the most recent edition of ASTM D2513 which has not yet been incorporated into 49CFR192. As can be seen from the examples quoted in the findings, none of the pipe identified exceeds, or comes close to exceeding, this 10 year limit.

Quote from Performance Pipe (8/22/2011) "Recently D2513 was updated to limit outdoor life of MDPE to 3 years and HDPE to 10 years. All of our literature currently reflects the most recent edition of D2513." Additionally WAC 480-93-178(2) states

"The gas pipeline company must follow the manufacturer's recommendation for maximum cumulative ultraviolet light exposure limit for plastic pipe. If there is no such recommendation, the gas pipeline company must not expose plastic pipe to ultraviolet light for more than two years. Each gas pipeline company must include the applicable ultraviolet exposure time limit in its procedures manual."

Barry Peterson of Performance Pipe is willing to be contacted to again state that the pipe meets all requirements of ASTM D2513-99. I fail to see what further action the City of Ellensburg could have taken with respect to "due diligence" in ensuring that all HDPE pipe met the required rules and specifications. The City of Ellensburg has been following the manufacturer's recommendations as stated in the above quoted rules.

Notwithstanding all of the above, the City of Ellensburg is aware of the debate that is ongoing with reference to ultraviolet exposure of black HDPE pipe and has allocated money in the 2012 budget (still to be approved) to construct covered pipe storage next year.

As a side issue, the quoted rule, 49 CFR §192.321 Installation of plastic pipe; refers to uncased plastic pipe temporarily installed above ground level and in our opinion is not applicable to the storage of plastic pipe.

2. **WAC 480-93-180 Plans and procedures.**

(1) Each gas pipeline company must have and follow a gas pipeline plan and procedure manual (manual) for operation, maintenance, inspection, and emergency response activities that is specific to the gas pipeline company's system. The manual must include plans and procedures for meeting all applicable requirements of 49 CFR §§ 191, 192 and chapter 480-93 WAC, and any plans or procedures used by a gas pipeline company's associated contractors.

Finding(s):

During the field portion of the inspection, it was noted that the City of Ellensburg stores its plastic pipe outdoors with no UV protection. Several sections of pipe inspected exceed the two year exposure limit. Section 2.2 of the City of Ellensburg O&M manual states that several manufacturers stated that their pipe can be stored indefinitely with direct UV exposure. The ASTM D-2513-99 is the current version incorporated by reference into 49 CFR Part 192 and still has a two year exposure limit for plastic piping unless it conforms to the complete series of tests as specified by ASTM D2513-99. The O&M manual needs to be updated to be consistent with 49 CFR Part 192.321(g)(1).

Section 2 of the City of Ellensburg Gas Division's Codes of Practice includes information from earlier correspondence with Performance Pipe regarding the maximum exposure limits, and is required to be updated with the latest information as noted in our response above concerning recent correspondence from Performance Pipe. This shall be completed by the end of October. However, we still take issue with your reference to a two year exposure limit in your finding.

Areas of Concern

The following areas of concern of Title 49, CFR Part 192 and WAC 480-93 were noted as a result of the inspection of the City of Ellensburg natural gas distribution system in Ellensburg, WA. These items, if left uncorrected, could potentially lead to future probable violations.

1. **49 CFR §192.615 Emergency Plans**

   (b) Each operator shall:

   (2) Train the appropriate operating personnel to assure that they are knowledgeable of the emergency procedures and verify that the training is effective.

   Finding(s):

   The Bluegrass leak was provided as an example of a real world event substituted for a simulation. It was noted by the operator that it was discussed in a City of Ellensburg safety meeting, but no documentation was provided to staff. This documentation is needed to verify the emergency procedure training or incident response was effective.

The minutes from the Safety Meeting held on Tuesday, May 25, 2010, were available at the audit and shown to the inspectors which stated…

"4. Abnormal Operating Conditions

4.46 – Bluegrass Incident

The Bluegrass incident was discussed at some length. It was felt that there were no areas that fell short in the procedures and incident actions that were taken. There was a suggestion for door knockers with after-hours numbers.

Action – For Information"

Computer record properties show that the file was created and last modified on Wednesday June 23rd 2010. (i.e. the file was not modified at a later date). A copy can be supplied if required.

In addition, a table-top exercise with the Fire Department was also highlighted although no reference is made to that exercise in the above.

Staff routinely discusses and reviews any significant event, emergency or otherwise, in the monthly safety meetings and suggestions made for any improvements necessary to existing procedures. These events are recorded in the minutes of the meetings. If this form of documentation is inadequate, we request further guidance as to what form such documentation needs to take.

2. **49 CFR §192.463 External corrosion control: Cathodic protection.**

   (a) Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in Appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.

Finding(s):

There were no instant offs and no natives present in the records. The Railroad Avenue and Wenas St. had a reading of -860mV on 6/28/2011. Additionally, at Dolarway Rd east of Potts Rd at the Mercer Creek Bridge Crossing, there were "On" readings that were -880mV on 7/26/2010. The method for clearly identifying how the operator considers IR drop at all test stations is unclear.

The information was available, however, it was not clear how this information was applied to the CP system. Section 12 of the Codes of Practice has already been updated to make this clearer. Please refer to pages 18/19 of the most recent revision of Section 12. This process was applied to the above referenced readings and the CP coverage was found to be adequate. CP check results, now undertaken are, in addition to being recorded in the Pipeline Patrol Book, entered into an Excel spreadsheet to quickly highlight any deficiencies.