POST INSPECTION MEMORANDUM

Inspector: Kuang Chu & Dennis Ritter/UTC
Reviewed: Joe Subsits/WUTC
Peer Reviewed: _____
Follow-Up Enforcement: No Violation
PCP* PCO* NOA WL LOC
Director Approval* _____

Date: November 17, 2011

Operator Inspected:
KB Pipeline
121 SW Salmon Street
Portland, OR 97204

OPID: 31522 **Region:** Western

Unit Address:
KB Pipeline
PGE Beaver Power Plant
80997 Kallunki Road
Clatskanie, OR 97106

Unit Inspected: Western Washington **Unit ID: 9775**
Unit Type: Interstate Gas Transmission
Inspection Type: I01-Standard Inspection, I08-OQ Field Verification
Record Location: Clatskanie, OR
Inspection Dates: November 7-10, 2011
AFOD: 8.0 (I01-6.0, I08-2)
SMART Activity Number:

Operator Contact: Robert Cosentino
Phone: (360) 200-4959 **Fax:** (530) 527-7176 **Emergency:** (800) 433-0252

Unit Description:
The Kelso-Beaver (KB) Pipeline is located in Cowlitz County, Washington. KB Pipeline takes delivery of natural gas from the Williams Northwest Pipeline meter station located east of Kelso, Washington and extends west approximately 18 miles to Columbia County, Oregon. The pipeline crosses under the Columbia River north of the City of Longview, Washington. The pipeline is a 20-inch diameter, API 5L grade X52 material, with a nominal wall thickness of 0.281, 0.344, and 0.375-inches. The pipeline is jointly owned by Portland General Electric (PGE), U.S. Gypsum Company, and Northwest Natural Gas (NWN). The K-B Pipeline has three customers located in Oregon at the PGE's Beaver generating station and Port Westward generating station, and U.S. Gypsum near Rainier, Oregon.

Facilities Inspected:
This inspection included a review of the records at PGE's Beaver generating station at Clatskanie, Oregon, and a field inspection of the pipeline right-of-way from the gate station located at the delivery point from Williams Gas Pipeline West located northeast of Longview, WA to the mainline valve KBV-3. Pipeline facilities inspected included the gate station, several cathodic protection test stations, road crossing casing under I-5 freeway, mainline valves, rectifier (only one in WA), above ground section of the pipeline, and land slide area.

Persons Interviewed:

Persons Interviewed	Title	Phone No.
Robert Cosentino	President & CEO, Cosentino Consulting Inc.	360-200-4959

Probable Violations/Concerns:
There was one probable violation as described below:

1) **§192.707 Line markers for mains and transmission lines.**
   (d) Marker warning. The following must be written legibly on a background of sharply contrasting color on each line marker:
   (2) The name of the operator and telephone number (including area code) where the operator can be reached at all times.

Finding(s):
The operator for the KB Pipeline was changed from Cascade Natural Gas to KB Pipeline on April 1, 2011. The emergency phone number remains the same at 800-433-0252. During the field inspection, it was found that the emergency phone number was 800-433-1252 on newly installed markers. Further investigation revealed that the incorrect phone number was due to error made when ordering the new markers.

Post inspection notes: Upon discovery of the mistake, the operator ordered new markers immediately locally. By Saturday November 12, 2011, all the markers with incorrect phone number have been replaced.

During Plan and Procedures review (PHMSA Form-1), the following deficiencies were identified in the operator's O&M manual. All the deficiencies were corrected immediately during the inspection.

1) **§192.615 Emergency plans.**
   a) Each operator shall establish written procedures to minimize the hazard resulting from a gas pipeline emergency. At a minimum, the procedures must provide for the following:
   (2) Establishing and maintaining adequate means of communication with appropriate fire, police, and other public officials.

Finding(s):
The list for appropriate fire, police, and other public officials in the operator's Emergency Procedure Manual Appendix C for emergency contacts was incomplete. The local law enforcement contact numbers for State Patrol and County Sheriff were not included in the manual.

2) **§192.225 Welding Procedures**

a) Welding must be performed by a qualified welder in accordance with welding procedures qualified under section 5 of API 1104 (incorporated by reference, see §192.7) or section IX of the ASME Boiler and Pressure Vessel Code "Welding and Brazing Qualifications" (incorporated by reference, see §192.7) to produce welds meeting the requirements of this subpart.

Finding(s):
The operator's O&M manual Section 11.5.2 v for welding procedures did not include the edition number for API 1104, as required by §192.7 (c) (2) Documents incorporated by reference for API 1104, "Welding of Pipelines and Related Facilities" (20th edition, October 2005, errata/addendum, (July 2007) and errata 2 (2008)).

3) **§192.476 Internal corrosion control: Design and construction of transmission line.**

(a) Design and construction. Except as provided in paragraph (b) of this section, each new transmission line and each replacement of line pipe, valve, fitting, or other line component in a transmission line must have features incorporated into its design and construction to reduce the risk of internal corrosion. At a minimum, unless it is impracticable or unnecessary to do so, each new transmission line or replacement of line pipe, valve, fitting, or other line component in a transmission line must:

(1) Be configured to reduce the risk that liquids will collect in the line;

(2) Have effective liquid removal features whenever the configuration would allow liquids to collect; and

(3) Allow use of devices for monitoring internal corrosion at locations with significant potential for internal corrosion.

Finding(s):
The requirements for internal corrosion control measures were not included in operator's O&M manual Section 11.2.2 for design and construction of transmission line.

Concern About Land Slide Area:
During the field inspection, the Hazel Dell Road Slide Area was inspected. The integrity of the pipeline at this location has been a great concern to us. In 2000, about 300 feet of pipe were raised above ground on steel structural supports to alleviate pipe stresses caused by ground movement. The landslide is active in this area and there were signs of additional ground movement under the steel structural supports since the last inspection in 2009. The majority owner of the pipeline (PGE) started monitoring ground movement over the pipeline by using survey by their own survey crew in 2000. Since 2006, PGE has been monitoring this area every two weeks during the rainy season (Nov. 1 through April 1), with additional monitoring

following a 2-inch rain event in a 24-hour period. During the dry season, monitoring takes place every six weeks. PGE stated that throughout the surveillance period, the pipe and the adjacent ground has not moved significantly in this area. During the field inspection, we noticed that there were scarps down-slope of the pipeline and up-slope of the pipeline with approximately 50 feet separating these two scarps (with the pipeline in the middle). We believe that the pipeline is under stress. But the magnitude of the stress is not known as there are no strain gages installed on the pipe and the survey started 8 years after the pipeline was built in 1992. There were no base lines for supposedly neutral position when the pipe was laid in the trench during original construction. In 2009, French drains were installed to improve drainage down-slope of the pipeline. During the exit interview, this subject was discussed extensively to convey our concern. The owner was urged to consider rerouting the pipeline or using horizontal directional drilling (HDD) to ensure the integrity of the pipeline.

Follow up on the history of prior offenses that are still open:

Prior Offenses (for the past 5 years)		
CPF #	**What type of open enforcement action(s)?**	**Status of the regulations(s) violated (Reoccurrence Offenses, Implement a NOA Revision, Completion of PCO or CO, and etc...)**

Recommendations:

1. Issue a NOPV for the pipeline markers.
2. This unit should continue to be inspected every other year.

Comments:

None.

Attachments:

PHMSA Form 1 - Standard Inspection Report of a Gas Transmission Pipeline
PHMSA Form 13 - Pipeline Drug &Alcohol Questions
PHMSA Form 15 - OQ Field Inspection Protocol
PHMSA Form 17 - Supplemental SCC Questionnaire Gas Transmission or Liquid Pipeline
Field Data Collection Form
Western Region-Unit Information Form

Version Date: 5/5/08