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June 5, 2006

Carole J. Washburn, Secretary
Washington Utilities and Transportation Commission
P.O. Box 47250
Olympia, WA 98504-7250

Attn: Alan Rathbun, Pipeline Safety Director

Subject: Docket PG-050516 – 2005 Standard Inspection of King County Distribution System

Dear Mr. Rathbun,

This letter is in response to the “2005 Standard Inspection of King County Distribution System” dated May 8, 2006.

In this letter Staff identified three probable violations and one area of concern. Below are PSE’s responses to these findings.

1. **49 CFR §192.199(e) Requirements for the Design of Pressure Relief and Limiting Devices.**
Each pressure relief or pressure limiting device must, “Have discharge stacks, vents, or outlet ports designed to prevent accumulation of water, ice, or snow, located where gas can be discharged into the atmosphere without undue hazard.”

Finding A:

A hazard existed with the vent piping for the pressure relief regulator at Mark Twain Elementary School at 2450 South Star Lake Drive in Federal Way (Meter No. 556349, 528284, & 629477) constructed with PVC material, cracked pipe section, and fittings not glued. PSE’s Standards has never included PVC as an acceptable material for natural gas piping. The school is a single story building with roof eaves that extends approximately 3 feet 6 inches from the exterior walls. A continuous perimeter vent to the attic space is located where the soffit meets the exterior wall. Several pipe fittings were not glued and the pipe section under the soffit was broken at the building intake vent. The PVC pipe extended above the roof gutter and equipped with a weather cap.

A PVC vent pipe was attributed to an apartment fire in Lakewood, Washington on January 11, 1998. PSE agreed to complete an extensive field survey to locate and remove all PVC vent piping in response to the commission letter dated November 16, 1999, in Docket UG-980098. PSE’s letter of July 16, 2004, reported the completion for the PVC vent pipe remediation project. It is staff’s opinion, after locating the vent pipe at Mark Twain Elementary School, that PSE’s remediation efforts were not comprehensive and the possibly for other locations with similar material is likely to exit.

During a follow-up field inspection on March 29, 2006, the plastic piping at Mark Twain Elementary School was removed and a new 8-inch long steel extension pipe and fitting were attached to the regular. The extension pipe is necessary for the regulator opening to be at least 6-

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feet from the soffit intake pursuant to PSE standard (2550.1800, Table 5-1) Staff recommends that PSE revise their standard and restore the regulator vent pipe at Mark Twain Elementary School with steel piping that extends past the soffit.

Response A:

As staff noted in their audit findings, PSE had previously performed an extensive field survey to locate and remediate PVC relief vent piping. Therefore, PSE was also concerned when the PVC vent at Mark Twain Elementary School was discovered in the course of the audit. Subsequent to this finding, we promptly initiated a review to determine how this occurred. This review identified that the individual performing the initial field survey had incorrectly indicated there was no vent piping at Mark Twain Elementary. We then performed an audit of the work of this individual to determine if there was additional PVC vent piping that had been missed. This audit confirmed that the work of this individual was very reliable and did not identify any additional PVC vents.

While PSE is confident that the previous PVC vent piping program was successful in identifying PVC vents, we recognize that human errors can occasionally occur and additional review may be beneficial. As a result, PSE has incorporated an evaluation of vent piping into the Isolated Facilities Program. The personnel conducting the riser inspections have been instructed to look for PVC vent piping and will report any PVC vent piping that is found. Any PVC vent piping identified through this review will be remediated before the Isolated Facilities Program is completed by July 1, 2009.

Staff also recommended that PSE revise its standard and restore the regulator vent pipe at Mark Twain Elementary School with steel piping that extends past the soffit. The standard that specifies the clearance from a regulator vent to a soffit has been revised since this regulator was initially installed. The remediated installation complies with PSE's current standards, which meet the requirements of Part 192 in ensuring relief vents are located such that gas can be discharged into the atmosphere without undue hazard.

Finding B:

The regulator vent at the South End Auto at 3400 S. Valley Hwy (Meter No. 429159) is located in the horizontal position. The Fisher manufacturer recommends the vent be directed downward to prevent moisture from entering the regulator.

Response B:

The regulator installed at this location is a Fisher S202 and the vent piping on this regulator has been modified to ensure compliance with the manufacturer's recommendation.

PSE has discussed this type of installation with the manufacturer; and through these discussions, the manufacturer has indicated they believe this recommendation was added to their literature between 1973 and 1981. As a result, PSE believes there may be additional regulators that were installed prior to this recommendation with the regulator vent terminating in the horizontal position.

In 2004, PSE developed a new standard, 2575.2600 "Meter Change Outs," which requires verification that regulators are oriented in accordance with our standards when meters are being changed out. This ensures vents that terminate horizontally would be identified and remediated through the meter change out process. This standard currently only applies to regulators with a breather vent. This standard will be revised in 2007 to require this review on all regulators when meters are changed out.

In order to take advantage of additional opportunities to identify where regulators may be installed with the vent in the horizontal position, PSE is incorporating this evaluation into the Continuing Surveillance Program. In 2007 Gas Operating Standard 2575.2700 "Continuing Surveillance" will be revised to specify that regulator vents that terminate in the horizontal direction shall be categorized as an unsatisfactory condition and must be remediated in accordance with this standard.

We will also communicate to appropriate field personnel that they should be aware that this is an unsatisfactory condition and that they should begin reporting it through the Continuing Surveillance report, Form 3704 "Reporting Abnormal or Unusual Operating Conditions on Gas Facilities." We will communicate this expectation to appropriate personnel this summer and we will formalize this requirement in the 2007 updates to the Gas Operating Standards.

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.*

Finding:

Staff's inspection of the cathodic protection system on Vashon Island found low cathodic protection voltage at:

- 1726 Vashon Hwy (Meter #101105) P/S -0.751 volt dc.
- 10105 SW Bank Road at the Heritage Museum (Meter # 936157) P/S -0.413 volt dc. During the exit interview, this service was identified by PSE as a PE service line yet no documentation was provided to substantiate the claim.

Response:

PSE's follow-up investigation determined that neither of these locations had low PSP reads. The following provides additional information on PSE's findings at both of these locations.

- 17526 Vashon Hwy – On February 14, 2006, PSE investigated the low PSP read identified by Staff and found the PSP was acceptable with a read of -.980 volts.

The service at this address is part of cathodic protection system #037025. The test site that is monitored to ensure adequate cathodic protection for this service is located at 17011 Vashon Hwy. This test site is #044227 and was previously inspected on 4-21-05. On this date the PSP read was -1.010 volts.

- 10105 SW Bank Road - On April 27, 2006 PSE investigated the low read Staff found at this address. PSE found that this was a PE inserted riser that had been partially buried by the customer's landscaping material. The landscaping material was removed from the riser, ensuring that the transition from steel to PE was aboveground. PSE communicated with the customer the need to ensure the landscaping material was not replaced.

3. **49 CFR §192.723 Distribution Systems: Leakage Surveys**

(a) *Each operator of a distribution system shall conduct periodic leakage surveys in accordance with this section.*

Findings:

Approximately 300 feet of pipeline connecting the SWARR propane/air facility to a PSE's regulator station has not been included as part of PSE's leak survey program.

Response:

PSE provided Staff with documentation at the exit interview showing that both natural gas and propane leak surveys were performed on this piping on October 24, 2005 and November 3, 2005, respectively. This piping has been added to the leak survey program to ensure that leak surveys continue to be performed at the required frequency.

AREA OF CONCERN

An electrical ground wire was found to be attached to the natural gas service piping at the Heritage Museum located at 10105 SW Bank Road on Vashon Island, and if not corrected, could potentially introduce high voltage current onto the natural gas distribution system.

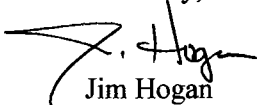
Response:

As indicated in the response to finding #2, PSE found that this was a PE to steel riser and we informed the customer that their ground wire should not be grounded through the gas service.

PSE appreciates the Commission's responsibilities in auditing and enforcing pipeline safety regulations with respect to the companies that it regulates. PSE is committed to continue its efforts to construct and operate a natural gas system that is safe and meets high standards of excellence.

Please feel free to contact me at 425-462-3957 if you have any further questions or comments.

Sincerely,



Jim Hogan
Manager, Standards & Compliance

cc: Sue McLain
Booga Gilbertson
Duane Henderson
Kimberly Harris
Karl Karzmar