



STATE OF WASHINGTON
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
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Ref. No. Docket PG-050516

CERTIFIED MAIL

May 8, 2006

Jim Hogan
Standards and Compliance Manager
Puget Sound Energy
PO Box 90868, EST-07W
Bellevue, Washington 98009-0868

Dear Mr. Hogan:

Subject: 2005 Standard Inspection of King County Distribution System

Commission pipeline safety staff conducted a natural gas inspection from November 14 to 18, 2005. The inspection included a review of the operating & maintenance, emergency plans, records review and inspection of the pipeline facilities. Enclosed is our report containing the results of the inspection including four probable violations of state and federal pipeline safety codes and one area of concern.

We are most concerned about the probable violation related to the vent piping on a pressure relief regulator at Mark Twain Elementary School. You will recall the program initiated by PSE resulting from a 1998 apartment fire in Lakewood. Under this docket (UG-980098), PSE committed to a comprehensive inventory and remediation plan including the elimination of all PVC vent piping. We are very concerned that PSE missed a PVC vent pipe at an elementary school in this program. Further, we are not satisfied with how PSE mitigated this situation following our inspection. This relief is located in a sheltered area with limited air circulation. The vent pipe's replacement with a short downward directed nipple does not meet the intent of "discharge into the atmosphere without undue hazard."

The referenced findings of probable violation constitute our position at this time, based on our investigation. These findings of probable violations do not constitute commission findings of violations. There are several possible actions the commission, in its discretion, may take with respect to this matter. For example, the commission may consider the matter resolved without further commission action. Or, the commission may issue an administrative penalty under RCW 80.04.405. Or, the commission may institute a complaint, seeking monetary penalties, changes in the company's practices, or other relief authorized by law, and justified by the circumstances. This list of possible actions is not exhaustive, but it is intended to give the normal range of



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actions the commission typically considers. Regardless what actions the commission decides to take, if any, the company will have the opportunity to present its position on the merits of the matters involved. As of this date, I have not made a recommendation to the commission regarding the appropriate action in this matter.

Please review the attached report and respond in writing by June 12, 2006. The response should include a letter of intent and the date you plan to address the areas of probable violations noted. We are also requesting that you respond to the area of concern in the same response. If you have any questions, or if we may be of any assistance, please contact Al Jones at (360) 664-1321. Please refer to docket numbers PG-050516 in any future correspondence regarding this inspection.

Thank you for your cooperation and interest in pipeline safety and integrity.

Sincerely,



Alan E. Rathbun
Pipeline Safety Director

Enclosure

The Washington Utilities and Transportation Commission (Commission) has the authority to enforce the minimum safety regulations per Chapter 480-93 of the Washington Administrative Code (WAC) pertaining to the construction, maintenance and operation of pipelines transporting natural gas in the state of Washington. In addition, the Commission adopts the Code of Federal Regulations (CFR) Title 49, Part 191 and 192.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
2005 Natural Gas Pipeline Standard Inspection Report
Puget Sound Energy - King County District
Docket No. PG-050516

The following violations of WAC 480-93, which adopts 49 CFR Part 192, were noted as a result of the 2005 pipeline safety inspection of Puget Sound Energy (PSE) King County District natural gas distribution system. The inspection included a review of the procedures, records, inventory, and field operations and maintenance of the natural gas facilities.

PROBABLE VIOLATIONS

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 Nos. 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 was necessary for the regulator opening to be at least 6-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.

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 manufacture recommends the vent be directed downward to prevent moisture from entering the regulator.

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.*

Findings:

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.

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.

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.