

August 7, 2009

David W. Danner, Executive Director and Secretary
Washington Utilities and Transportation Commission
PO Box 47250
Olympia, WA 98504-7250

RECEIVED
RECORDS MANAGEMENT
2009 AUG 10 AM 8:27
STATE OF WASH.
UTILITY AND TRANSP.
COMMISSION

Attn: Anne Soiza, Pipeline Safety Director

RE: 2009 Standard Natural Gas Inspection of West King County Distribution System, Docket PG-090030

Dear Ms. Soiza,

PSE has received and reviewed your letter dated July 7, 2009, regarding the "2009 Standard Natural Gas Inspection of West King County" and pursuant to your request is submitting the following written response.

PSE reviewed the three noted probable violations of Title 49, CFR Part 192 and WAC 480-93 which were noted as a result of the inspection of West King County. Our preparation for this submittal included performing thorough research specific to each item and interviews with key internal stakeholders.

Below are PSE's responses to these findings as well as actions that will bring the probable violations into full compliance:

PROBABLE VIOLATIONS

1. **49CFR §192.355(b)(1) Customer meters and regulators: Protection from damage**
 - a. *Protection from vacuum or back pressure. If the customer's equipment might create either a vacuum or back pressure, a device must be installed to protect the system.*
 - b. *Service regulator vents and relief vents. Service regulator vents and relief vents must terminate outdoors and the outdoor terminal must:*
 - i. *Be rain and insect resistant;*
 - ii. *Be located at a place where gas from the vent can escape freely into the atmosphere and away from any opening into the building; and*
 - iii. *Be protected from damage caused by submergence in areas where flooding may occur.*
 - c. *Pits and vaults. Each pit or vault that houses a customer meter or regulator at a place where vehicular traffic is anticipated must be able to support that traffic*

Charge:

Regulator relief vents on certain PSE meter sets did not have proper screening installed to prevent debris and insects from entering and plugging the regulator relief.

Finding(s):

Field inspections found the following meter sets with regulator relief vents that did not have proper screening to prevent debris and insects from entering and plugging the regulator relief. A plugged vent could cause an over pressure condition downstream of the meter.

- a. PSE has a meter set located at 153 SW 153rd St., Burien (Meter #48230). The meter set regulator vent terminates inside a parking garage located under a building intended for human occupancy. The regulator is vented with ¾ -inch steel and does not have a vent screen to prevent debris and insects from entering and plugging the vent.
- b. PSE has a meter set located at 13060 1st Ave S., Burien. Meter # 950320 meter set regulator terminates through a section of ¾” steel pipe and does not have a vent screen to prevent debris and insects from entering and plugging the vent.
- c. PSE has a meter set located at 780 S. Michigan St. Georgetown. This is a 3-meter manifold and 2 of the meter numbers are #399221 and #771271. The meter set regulator vent terminates through a section of ¾” steel pipe and does not have a vent screen to prevent debris and insects from entering and plugging the vent.

Note: A post field review indicated that these 3 installations have been remediated. Please respond why these were not found during PSE’s vent inspection program.

PSE Response

PSE recognizes and supports the requirement of regulator relief vents containing proper screening to prevent debris and insects from entering and plugging the regulator relief. PSE has had standards and/or procedures in place for a significant amount of time requiring that a vent cap with screen be installed and stocks these caps as a standard item.

In investigating this probable violation, PSE discovered that, in the case of items (b.) and (c.) noted above, the vent cap was still installed at the termination point of the regulator vent, yet the screen portion was missing. The cap comes pre-assembled with a screen that is firmly affixed inside the fitting. It is our assumption that something or someone caused the vent screen to no longer exist as designed and installed. After discussions with a number of field personnel, it is believed that tampering by a third party resulted in the missing screen. On item

(a.) above, there is no evidence that a vent cap was or was not initially installed, although, as previously noted, PSE has had long standing standards and procedures requiring the installation of vent caps. As a result of these findings, PSE will be reaffirming the vent cap and screen requirement to field personnel responsible for the installation and inspection of these facilities

Noteworthy is that during our investigation into this matter, PSE confirmed that our gas operations field personnel and contractors are utilizing the 'Reporting Abnormal or Unusual Operating Conditions' process (Blue Card) in properly identifying this and other appropriate safety conditions.

In response to your specific request as to why these missing screens were not found during PSE's vent inspection program, PSE reviewed the scope of the Relief Vent Inspection Program and the specific instructions and training provided to the employees conducting the inspections. PSE has determined that the scope was to identify and remediate issues with PVC vent piping and horizontal venting, and it did not specifically address vent screens. Worthy of note is that our contract workforce who performs leak survey and atmospheric corrosion inspections has been trained to identify and record missing vent screens on the Reporting Abnormal or Unusual Operating Conditions on Gas Facilities form. Also, as a result of this audit finding, PSE will be reviewing the use of the form to more clearly document findings of this type to allow more ready identification when follow up activity is required. PSE will review this form as part of its overall review of the Continuing Surveillance Program.

2. WAC 480-93-188(3)d) Gas leak surveys

(3) Where the gas system has cast iron, wrought iron, copper, or noncathodically protected steel – at least twice annually, but not to exceed seven and one-half months between surveys;

(d) Where the gas system has cast iron, wrought iron, copper, or noncathodically protected steel – at least twice annually, but not to exceed seven and one half months between surveys

Charge:

Copper service lines are not being leak surveyed twice annually.

Finding(s)

PSE's annual report (PHMSA F 7100.1-1) indicates that PSE has 332 copper services in their distribution system. These services are located primarily in the King county area and areas where steam lines were prevalent. PSE was unable to provide any documentation indicating that these copper services are being leak surveyed twice annually in accordance with the rule.

PSE Response

PSE regrets that records were not able to be produced indicating the location of copper services or that copper services were being leak surveyed at the required frequency. PSE recognizes the importance of ensuring that unprotected pipe is monitored for public safety and is implementing measures to promptly identify the location and number of copper services so that proper reporting and surveys can be performed.

Previously, PSE had identified unprotected metallic services on its maps and has been performing leak surveys twice a year in accordance with the WAC requirements. Through this audit finding and our associated follow-up investigation, PSE has discovered that the previous review for unprotected metallic services did not comprehensively include the identification of copper services. Therefore, leak surveys were not being performed at the required frequency. Our investigation also determined that the method being utilized to identify the number of copper services as reported on the annual report is based on plant accounting records. In of itself, this should not be an issue. However, upon performing some initial service records research, we have discovered that in many instances the former copper service locations have actually been removed or replaced. Unfortunately, the plant accounting records were not accurately updated, resulting in what appears to be an over-reporting of the number of copper services in the system.

As a result, PSE has developed a process to identify active copper services and perform leak surveys twice a year. To date, PSE has reviewed several data bases and identified 10 copper services in King County. They are scheduled to be leak surveyed by the end of August, 2009.

To ensure a thorough review, PSE will perform a review of plat maps to identify the population of copper services throughout the entire PSE system and will complete this effort by the end of 2009. As PSE identifies and confirms that an active copper service exists, PSE commits to performing a leak survey of these locations within 60 days of the service confirmation. Following that survey, each location will be notated in the "special survey" category in the leak survey data base and on the plat map. Subsequent leak surveys will be performed per WAC requirements.

PSE will provide the commission a status report of the work by Jan 15th, 2010.

In addition, to the noted effort above, PSE has worked with our contract management group and by extension our service provider to reaffirm the importance of notating all pertinent information on field documentation so that PSE can accurately update its plant accounting and map records to report on and monitor service specific safety requirements.

3. **WAC 480-93-188(2) Gas leak surveys (instrument calibration)**

- (2) *Each gas pipeline company must maintain, test for accuracy, calibrate and operated gas detection instruments in accordance with the manufacturer's recommendations. If there are no written manufacturer's recommendations or schedules, then the gas pipeline company must test such instruments for accuracy at least monthly but not to exceed forty-five days between testing, and at least twelve times per year. The gas pipeline company must recalibrate or remove from service any such instrument that does not meet applicable tolerances. Records of accuracy checks, calibration and other maintenance performed must be maintained for five years.*

Charge:

Gas detection instruments were not calibrated monthly.

Finding(s):

Records indicate that the following PSE Gas First Responder leak detection instruments were not calibrated monthly as required.

- a) Gascope 10002 – missed 10/07, 5/08, and 10/08
- b) Gascope 1016 – missed 8/07, 9/07, 10/07 and 12/07
- c) Gascope 1021 – missed 2/08, 4/08
- d) Gascope 1039 – missed 1/08, 4/08, 8/08, and 11/08
- e) Gascope 1041 – missed 11/07, 4/08, and 11/08
- f) Gascope 1096 – missed 8/07, and 11/07
- g) Gascope 1508 – missed 3/07, 6/07, 10/07, 2/08, and 4/08 thru 11/08
- h) Gascope 1711 – missed 11/08
- i) Gascope 1718 – missed 5/07, 12/07, 5/08, and 7/08
- j) Gascope 1746 – missed 3/07, and 11/07
- k) Gascope 2105 – missed 3/07
- l) Gascope 2285 – missed 7/07, 8/07, and 9/07
- m) Gascope 2308 – missed 2/08
- n) Gascope 2326 – missed 2/07, and 12/07
- o) Gascope 3797 – missed 11/07
- p) Gascope 3953 – missed 8/07, 12/07, 2/08, 7/08, 9/08, and 12/08
- q) Gascope 4000 – missed 2/08, and 5 thru 11/08
- r) Gascope 4618 – missed 9/07, 1/08, 2/08, and 7/08
- s) Gascope 4730 – missed 8/08 and 10/08
- t) Gascope 5058 – missed 3/07, 12/07, 10/08 and 12/08
- u) Gascope 5756 – missed 2/08, 4/08, and 10/08
- v) Gascope 6089 – missed 11/08
- w) Gascope 6229 – missed 2/08
- x) Gascope 639 – missed 3/07, 4/07, 7/07, 8/07, 10/07, 11/07, 12/07, 2/08 and 10/08
- y) Gascope 6796 – missed 8/07, 12/07, 6/08, and 11/08

- z) Gascope 6840 – missed 3/07, 8/07, 10/07, 12/07, 2/08, 5/08, 9/08 and 11/08
- aa) Gascope 8010 – missed 11/08
- bb) Gastrac 23870 – missed 2/08 and 3/08
- cc) Gastrac E30669 – missed 9/07, 1/08 and 12/08
- dd) Gastrac E30691 – missed 3/07, 12/07, 10/08 and 12/08
- ee) Gastrac E30693 – missed 12/07, 6/08, 10/08 and 12/08
- ff) Gastrac E30694 - missed 5/07, 12/07 and 7/08
- gg) Gastrac E30698 – missed 2/08 and 4/08
- hh) Gastrac J44664 – missed 8/07 and 11/07
- ii) Gastrac J44681 – missed 1/07, 3/07, 9/07, 1/08, 2/08, 3/08 and 5 thru 11/08
- jj) Gastrac J44873 – missed 3 thru 12/07, 8/08 and 10/08
- kk) Gastrac J45470 – missed 11/07 and 11/08
- ll) Gastrac J45476 – missed 1/07, 2/07, 6 thru 12/07, 2/08, and 6/08
- mm) Gastrac J45623 – missed 1/07, 2/07, 3/07, 9/07, 1/08, 2/08, 3/08 and 5 thru 11/08
- nn) Gastrac J45757 – missed 2/08, 4/08 and 10/08
- oo) Gastrac J49853 – missed 3/07, 8/07, 2/08, 5/08, 9/08 and 11/08
- pp) Gastrac J50114 – missed 11/08
- qq) Gastrac J51121 – missed 8/07, 12/07, 7/08, 9/08 and 11/08
- rr) Gastrac J51124 – missed 8/07 and 11/07
- ss) Gastrac J51134 – missed 2/08
- tt) Gastrac J51135 – missed 5/07, 01/08, 8/08 and 10/08
- uu) Gastrac J53298 – missed 5/07, 6/07, 8/07, 11/07, 4/08 and 11/08
- vv) Gastrac J53300 – missed 8/07 and 4/08
- ww) Gastrac J53307 – missed 1/08
- xx) Gastrac J53309 – missed 5/07, 6/07, 8/07, 6/08 and 11/08
- yy) Gastrac J53315 – missed 12/07 and 11/08
- zz) Gastrac J53316 – missed 12/07, 5/08 and 10/08
- aaa) Gastrac M02605 – missed 2/08 and 10/08
- bbb) Gastrac M02607 – missed 1/09
- ccc) Gastrac M04383 – missed 2/07, 4/07, 5/07, 8/07 and 12/07
- ddd) Gastrac M04390 – missed 6 thru 12/07, 2/08, and 6 thru 11/08
- eee) Gastrac M04790 – missed 2/08
- fff) Gastrac M07380 – missed 11/07, 7/08 and 11/08
- ggg) Gastrac M09516 – missed 1/07, 6/08 and 10/08
- hhh) Gastrac M09577 – missed 10/07, 5/08 and 10/08

Records indicate that the following Potelco leak detection instruments were not calibrated monthly as required:

- a) Gascope 1023 – missed 1/07 and 2/07 (Lost)
- b) Gascope 1240 – missed 2/07 (Lost)
- c) Gascope 2140 – missed 2/07, 3/07 and 4/07 (Lost)
- d) Gascope 5737 – missed 2/07, 3/07 and 4/07 (Lost)

- e) Gascope 6072 – missed 1/07 (Lost)
- f) Gascope 6225 – missed 10/07 (Lost)
- g) Gascope 11377 – missed 10/08
- h) Gascopec 14347, 14368, 4433, 8060 and 9993 all missed 11/08

PSE Response

PSE appreciates the importance of our gas detection equipment in ensuring public safety. To that end, PSE has performed thorough research into this matter. This research discovered that we had misapplied the WAC requirements related to gas detection equipment calibration frequencies, resulting in meeting the 45-day requirement, but exceeding the monthly requirement. PSE has immediately taken action to rectify this matter as described below.

PSE Leak Detection Instruments

PSE has reprogrammed SAP's instrument calibration scheduling tool to facilitate meeting the monthly calibration requirement.

PSE has also improved the process for calibrating the instruments by scheduling the accuracy check earlier in the month to provide time at the end of the month to complete the calibration check on any instruments not immediately available on the regularly scheduled date. This modification allows PSE to meet the monthly, not to exceed, 45 day WAC requirement.

Potelco Leak Detection Instruments

- Gascope 1023, 1240, 2140, 5737, 6072 and 6225 - Through ongoing process improvements and Quality Assurance activities, Potelco changed its record keeping process in April of 2008 to address many of the issues with "lost" instruments. The gas detection database and the supporting process have been enhanced to capture information and greatly improve the tracking of all leak detection instruments.
- Gascope 11377, 14368 and 8060 – These three instruments were located at remote locations that presented challenges with the timely return for accuracy checks. This issue has been communicated to Potelco and they will ensure the return of instruments by express shipping methods for instruments to be serviced.
- Gascope 14347, 4433 and 9993 - Early checks resulted in inadvertently missing their monthly check by one day for the Gascope instruments.

PSE will continue to work directly with Potelco through their Quality Control processes to ensure compliance with calibration schedules. PSE regrets that the foregoing issues occurred, and is taking affirmative steps to ensure that they do not recur.

PSE trusts that the information provided fully responds to and satisfies your request. PSE respects the commission's responsibilities in auditing and enforcing pipeline safety regulations and we continue our efforts to construct, operate and maintain a safe gas pipeline system that meets high standards of excellence. If I can offer any further clarification, please feel free to contact me at 425-462-3967.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. Ferchert', with a stylized flourish at the end.

Helge Ferchert
Manager, Gas Compliance and Regulatory Audits

Attachment

cc: Michael Hobbs
Duane Henderson
Erik Markell
Bert Valdman
Sue McLain
Karl Karzmar