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September 15, 2006

Carole J. Washburn, Secretary
Washington Utilities and Transportation Commission
P.O. Box 47250
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Attn: Alan Rathbun, Pipeline Safety Director

Subject: Docket PG-050331 – 2005 Standard Inspection of Pierce County Distribution System

Dear Mr. Rathbun,

This letter is in response to the "2005 Standard Inspection of Pierce County Distribution System", dated August 16, 2006.

In this letter Staff identified eleven probable violations and six areas of concern. Below are PSE's response to these findings.

PROBABLE VIOLATIONS

1. **49 CFR §192.465(a) External Corrosion Control: Monitoring**

(a) Each pipeline that is under cathodic protection must be tested at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of §192.463. However, if tests at those intervals are impractical for separately protected short sections of mains or transmission line, not in excess of 100 feet (30 meters), or separately protected service line, these pipelines may be surveyed on a sampling basis. At least 10 percent of these protected structures, distributed over the entire system must be surveyed each calendar year, with a different 10 percent checked each subsequent year, so that the entire system is tested in each 10-year period.

Finding(s):

a) PSE has a main serving approximately 13 services located at 919 Valley Ave (11105 Valley Ave.) in Puyallup. We met on-site with PSE personnel on November 28, 2005, to take pipe-to-soil potential readings. PSE personnel conducted electrical isolation tests and determined that there are two separate segments of isolated steel main in excess of 100 feet each. Pipe-to-soil potential readings indicate that cathodic protection (CP) levels meet the minimum requirements set forth in Appendix D of the CFR. PSE records and employees both indicate that these two segments are not on the annual survey as required but

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are instead on PSE's 10% survey list which only requires that they be tested once every 10 years.

b) PSE has an isolated steel wrapped service extension located at 4445 185 Ave E, Sumner. We met on-site with PSE personnel and verified that this service extension had adequate levels of CP applied. PSE personnel were not able to provide any records indicating that this isolated steel wrapped service has been monitored for proper CP levels at least once every 10 years as required. PSE installed a test site (TS-051563) at this location on 11/23/2005. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

c) PSE has an isolated steel wrapped service riser located at 22225 Mountain Highway E in Spanaway which has not been monitored for proper levels of CP. PSE added a test site (TS-051872) at this location on 01/19/2006. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

d) PSE has an isolated steel wrapped service riser located at 22225 Mountain Highway E in Spanaway which has not been monitored for proper levels of CP. PSE added a test site (TS-051868) at this location on 01/19/2006. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

e) PSE has an isolated steel wrapped service riser located at 22219 Mountain Highway E in Spanaway which has not been monitored for proper levels of CP. PSE added a test site (TS-051867) at this location on 01/19/2006. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

f) PSE has an isolated steel wrapped service located at 302 S. 9 St in Tacoma. We met on-site with PSE personnel on 12/01/2005 to verify whether the service had adequate CP. Reads obtained were -1.382 v. PSE personnel were unable to find a test site for this location and were also unable to provide evidence this service had been monitored for proper levels of CP as required. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

g) PSE has an isolated steel wrapped service located at 714 Pacific Ave in Tacoma. PSE personnel were unable to find a test site for this location and were also unable to provide evidence this service had been monitored for proper levels of CP as required. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

h) PSE has an isolated steel wrapped service located 317 S. 7th St. We met on-site with PSE personnel on 12/01/2005 to verify whether the service had adequate CP.

Reads obtained were -1.410v. PSE personnel were unable to find a test site for this location and were also unable to provide evidence this service had been monitored for proper levels of CP as required. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

i) PSE has an isolated steel wrapped service located at 629 St Helens Ave, Tacoma (Meter #389484). We met on-site with PSE personnel on 12/01/2005 to verify whether the service had adequate levels CP. Adequate reads were obtained. PSE personnel were unable to find a test site for this location and were also unable to provide evidence this service had been monitored for proper levels of CP as required. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

j) PSE has a CP test site (TS-004408), located at S Pearl St & S 19 St in Tacoma. Records indicate that tests were performed on 05/02/2003 and again on 08/03/2005. No test was performed in calendar year 2004 and the 15 month maximum timeframe was also exceeded between tests. (We believe this to be SAP related and that it would have been remedied by the SAP reprogramming in 2005).

Response:

Item a

PSE has modified the maintenance plans for the main identified in Item a. The new maintenance plan requires the CP test sites to be monitored annually. In addition, PSE will communicate to appropriate field personnel the need to appropriately classify new test sites so that they are placed on the correct maintenance schedule.

Items b-i

Test sites have been created for all these locations and will be monitored as required by 49 CFR Part 192. In addition, PSE agrees with Staff that the Isolated Facilities Program, committed to under Dockets PG-030080 and PG-030128, will identify these types of locations and create test sites that will be monitored at the required frequency.

Item j

PSE agrees with Staff that the SAP Process Improvements Program, committed to under Dockets PG-030080 and PG-030128 and implemented in 2005, was designed to prevent late inspections such as the one identified in Item j.

2. **49 CFR §192.463(a) 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):

a) PSE owns and operates a service downstream of the meter, also known as an Extended Utility Facility, (EUF) located at 17206 33 St. Ct. E. in Sumner. This EUF is serving a pool boiler and has 2 isolated sections of steel that do not have cathodic protection applied. We met on-site with PSE personnel on November 29, 2005, and took pipe-to-soil potential readings on the 2 steel sections. PSE personnel obtained readings of -354 mv at the section nearest the pool boiler and -250 mv at the section nearest the house. These readings do not meet the minimum levels of CP required by 49 CFR §192 Appendix D. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

b) PSE has a ½-inch steel service line located at 6012 195th Ave E in Bonney Lake. This service line is served off of a segment of steel main. We met on-site with PSE personnel on November 29, 2005, to take pipe-to-soil potential reads and conduct tests to determine whether the service is electrically isolated from the steel main serving it. The service line appears to be isolated from the main. Cathodic protection test readings obtained by PSE personnel were -839 mv. This does not meet the minimum levels of CP required by 49 CFR §192 Appendix D. (This is an isolated steel service found by PSE during the critical bond program. The read was good at that time the service was determined to be isolated)

c) PSE has a steel wrapped service serving 742 and 744 S. Broadway Tacoma. The meter set is located inside the building and the regulator is outside. There is an insulator located at the regulator. The portion of the service between the outside regulator and the inside meter set appears to be steel wrapped. CP reads taken on 12/01/2005, by PSE personnel were -452 mv. This does not meet the minimum level of CP required by 49 CFR §192 Appendix D. (We believe this is related to the settlement agreement and that this facility would have been found by the isolated facilities program).

d) PSE has a steel wrapped service at 2306 A St., Tacoma. We met on-site with PSE personnel on 12/01/2005, and took pipe-to-soil potential readings on this service. The pipe-to-soil potential reading on this service was found to be -495 mv. This does not meet the minimum level of CP required by 49 CFR §192 Appendix D. (We believe this is related to the settlement agreement and that the facility would have been found during the critical bond program).

e) PSE has a steel wrapped service at 2310 A St., Tacoma. We met on-site with PSE personnel on 12/01/2005, and took pipe-to-soil potential readings on this service. The pipe-to-soil potential reading on this service was found to be -245 mv. This does not meet the minimum level of CP required by 49 CFR §192 Appendix D. (We believe this is related to the settlement agreement and that the facility would have been found during the critical bond program).

f) PSE has a steel wrapped service at 2312 A St., Tacoma. We met on-site with PSE personnel on 12/01/2005, and took pipe-to-soil potential readings on this service. The pipe-to-soil potential reading on this service was found to be -535 mv. This does not meet the minimum level of CP required by 49 CFR §192 Appendix D. (We believe this is related to the settlement agreement and that the facility would have been found during the critical bond program).

g) PSE has a steel wrapped service at 2316 A St., Tacoma. We met on-site with PSE personnel on 12/01/2005, and took pipe-to-soil potential readings on this service. The pipe-to-soil potential reading on this service was found to be -810 mv. This does not meet the minimum level of CP required by 49 CFR §192 Appendix D. (We believe this is related to the settlement agreement and that the facility would have been found during the critical bond program).

h) PSE exposed pipe condition reports indicate that approximately 238 segments of main or services had levels of CP that did not meet the minimum requirements of 49 CFR §192, Appendix D.

Response:

Items a- g

These low reads have been remediated by either replacing the facility with PE or installing additional anodes. In addition, for those that were not replaced with PE, test sites have been created and will continue to be monitored as required. PSE agrees with Staff that the Isolated Facilities Program, committed to under Dockets PG-030080 and PG-030128, will identify these types of locations and create test sites that will be monitored at the required frequency.

Item h

As noted by Staff in Item h, PSE takes PSP reads when steel pipe is exposed. This information is used to proactively identify segments of steel pipe with inadequate CP and remediate the CP. In addition, CFR 49 Part 192.463 requires that each cathodic protection system must provide a level of CP that complies with one or more of the criteria in Appendix D. Our cathodic protection systems comply with this criterion. The code does not require that the level of CP never fall below these levels. Instead the code addresses this by requiring systems to be monitored and when low levels of CP are found, the code requires us to correct these promptly per 192.465. Based on this understanding, PSE will seek a mechanism by which an interpretation can be obtained from the Office of Pipeline Safety to clarify 192.463.

3. **49 CFR §192.739(a) Pressure Limiting and Regulating Stations: Inspection and Testing**

(a) Each pressure limiting station, relief device (except rupture discs), and pressure regulating station and its equipment must be subjected at intervals not exceeding 15 months, but at least once each calendar year, to inspections and tests to determine that it is...

Finding(s):

a) Records indicate that district regulator station #RS-0219, located at S. 56 and Fife in Tacoma was inspected on 01/10/2003 and again on 10/28/2004. This exceeds the maximum time limit of 15 months between inspection and maintenance activities. (We believe that this scheduling issue would have been remedied by SAP reprogramming changes made by PSE in 2005).

b) Records indicate that district regulator station #RS-0235, located at S.12 and Proctor in Tacoma was not inspected and maintained during calendar year 2004. (We believe that this scheduling issue would have been remedied by SAP reprogramming changes made in 2005).

c) Records indicate that regulator assembly RS-2201, located at 1211 A ST NW in McChord AFB became a district regulator in 1999 but the regulator station was not inspected and maintained as a district regulator station until June 29, 2004.

d) Records indicate that district regulator #RS-0903, located at 6414 Bridgeport Way in Tacoma has only been inspected and maintained one time on 08/15/2005, even though it became a district regulator station as early as 2002 when main was constructed from it.

Response:

Items a and b

PSE agrees with Staff that the SAP Process Improvements Program, committed to under Dockets PG-030080 and PG-030128 and implemented in 2005, was designed to prevent late inspections such as those identified in Items a and b from occurring.

Items c and d

The pressure regulating stations identified in Items c and d have been placed on the correct maintenance plan so that they will be monitored at the appropriate frequency. In addition, PSE conducted a review of all single service farm taps to determine if there were additional pressure regulators initially installed as single service farm taps that have subsequently become a pressure regulating station. This review confirmed that the pressure regulating stations identified in Items c and d were isolated occurrences and other pressure regulating stations are appropriately classified.

4. **49 CFR §192.481(a) Atmospheric Corrosion Control: Monitoring**

(a) Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

If the pipeline is located:	*Then the frequency of inspection is:*
Onshore……	*At least once every 3 calendar years, but with intervals not exceeding 39 months*
Offshore……	*At least once each calendar year, butwith intervals not exceeding 15 months*

Finding(s):

a) PSE has an idle service with no meter located at 10712 62 St. Ct. E. (space 18) in Puyallup. The service is located in the Golden Rose mobile home park. The riser has heavy atmospheric corrosion. PSE was unable to provide records that this riser was surveyed for atmospheric corrosion within the 3 year, not to exceed 39 month timeframe as required.

b) PSE has a roof top service located at 1306 E. Pioneer Ave in Puyallup. The riser is in front of the building and the service goes up and over the roof to the meter set which is located in back of the building. PSE was unable to provide records indicating that the rooftop service has ever been surveyed for atmospheric corrosion.

Response:

The service identified in Item a has been retired and the atmospheric corrosion inspection of the service identified in Item b will be addressed through an existing program. Similar issues were identified in the Thurston-Lewis County Audit and as a result, PSE committed to two programs to address performing atmospheric corrosion inspections. The specific commitments are documented in a letter signed jointly by PSE and the WUTC dated May 6, 2006 and address performing atmospheric corrosion inspections at both idle risers (Item a) and at locations that are difficult to access (Item b).

5. **49 CFR §192.747(a) Valve Maintenance: Distribution systems.**

(a) Each valve, the use of which may be necessary for the safe operation of a distribution system, must be checked and serviced at intervals not exceeding 15 months, but at least once each calendar year.

Findings:

a) Records indicate that emergency valve #VA-01113, located at S. 112 St and I-5 in Tacoma was not operated during calendar year 2004. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

b) Records indicate that emergency valve #VA-06209, located at 1120 Milwaukee Way in Tacoma was checked and serviced on 09/02/2003 and again on 12/06/2004. This exceeds the 15-month maximum time limit allowed. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

c) Records indicate that emergency valve #VA-05831, located at S. 25th and Yakima in Tacoma was not operated during calendar year 2003. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

d) Records indicate that emergency valve #VA-05812, located at 23 Ave SE and Shaw Rd in Puyallup has a start up date of 12/11/1995 but that it was not checked

and serviced until 08/13/2004. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

e) Records indicate that emergency valve #VA-04282, located at Plant Rd & Dutch Rd in Fort Lewis had a required start date of 10/14/1995 but was not serviced and checked until 08/05/2005. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

f) Records indicate that emergency valve #VA-02135, located at Bridgeport Way and Mt Tacoma Dr SW in Tacoma was checked and serviced on 02/27/1997 and again on 04/08/2004. If these records are correct it indicates that over 7 years elapsed between maintenance. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

Response:
PSE agrees with Staff that the SAP Process Improvements Program, committed to under Dockets PG-030080 and PG-030128 and implemented in 2005, was designed to prevent late inspections such as those identified in Items a through f.

6. **49 CFR §192.465(b) External Corrosion Control: Monitoring**

(b) Each cathodic protection rectifier or other impressed current power source must be inspected six times each calendar year, but with intervals not exceeding 2 1/2 months, to insure that it is operating.

Finding(s):

a) Records indicate that rectifier #PS-0205, located at 1302 Magnolia Dr. in Fircrest was inspected on 12/11/2003 and again on 03/25/2004. This timeframe exceeds the maximum time limit of 2-1/2 months between inspections. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

b) Records indicate that rectifier #PS-0205, located at 1302 Magnolia Dr. in Fircrest was only inspected 5 times in 2004. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

c) Records indicate that rectifier #PS-0214, located at Wildwood Park Dr and King in Puyallup was inspected on 05/21/2004 and again on 08/11/2004. This exceeds the maximum time limit of 2-1/2 months between inspections. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

d) Records indicate that rectifier #PS-0215, located at Firgrove Dr and 108 Ave E in Puyallup was inspected on 05/21/2004 and again on 08/12/2004. This exceeds the maximum time limit of 2-1/2 months between inspections. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

e) Records indicate that rectifier #PS-0218, located at 24 St E and 142 Ave E in Sumner was inspected on 05/21/2004 and again on 08/09/2004. This exceeds the maximum time limit of 2-1/2 months between inspections. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

f) Records indicate that rectifier #PS-0220, located at E Valley Hwy and 24 St E in Sumner was inspected on 05/19/2004 and again on 08/09/2004. This exceeds the maximum time limit of 2-1/2 months between inspections. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

g) Records indicate that rectifier #PS-0229, located at 7 Ave SE and 14 St SE in Puyallup was inspected on 05/21/2004 and again on 08/09/2004. This exceeds the maximum time limit of 2-1/2 months between inspections. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

h) Records indicate that rectifier #PS-0237, located at Washington St and Wood Ave in Sumner was inspected on 05/21/2004 and again on 08/09/2004. This exceeds the maximum time limit of 2-1/2 months between inspections. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

i) Records indicate that rectifier #PS-0240, located at S 40 St and S Fawcett Ave in Tacoma was inspected on 09/13/2004 and again on 12/07/2004. This exceeds the maximum time limit of 2-1/2 months between inspections. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

j) Records indicate that rectifier #PS-0257, located at 18 St NW and 10 Ave NW in Puyallup was inspected on 05/21/2004 and again on 08/09/2004. This exceeds the maximum time limit of 2-1/2 months between inspections. (We believe that this scheduling issue would have been remedied by the SAP reprogramming in 2005).

Response:
PSE agrees with Staff that the SAP Process Improvements Program, committed to under Dockets PG-030080 and PG-030128 and implemented in 2005, was designed to prevent late inspections such as those identified in Items a through j.

7. **49 CFR §192.355(b)(1) Customer Meters and Regulators: Protection from Damage**

(b) Service regulator vents and relief vents. Service regulator vents and relief vents must terminate outdoors, and the outdoor terminal must:
(1) Be rain and insect resistant;

Finding(s):
The following service regulators have relief vents which are installed in a manner that could potentially allow rain and moisture accumulation which may affect the proper operation of the device.

a) 1306 E Pioneer Ave, Puyallup.
b) 3706 S. Pine St., Tacoma. Mtr #338668. (There are 2 regulators here with horizontal vents).

Response:
The service regulators at these locations have been modified to terminate with the vent oriented vertically and pointed downward.

In response to a similar installation identified during the 2005 King County Audit (PG-050516), PSE investigated this type of installation and determined that while not originally identified as an installation requirement, it is consistent with current best practices to revise these types of installations. To accomplish this, PSE committed to revising standard 2575.2600 "Meter Change Outs" and 2575.2700 "Continuing Surveillance" to take advantage of opportunities to identify any other regulators that may be installed with the vent in the horizontal position.

Also, we have communicated to appropriate field personnel that they should report similar installations as an unsatisfactory condition on the Continuing Surveillance report, Form 3704 "Reporting Abnormal or Unusual Operating Conditions on Gas Facilities." This requirement will be formalized in the 2007 updates to the Gas Operating Standards.

8. **WAC 480-93-188(1)(a) Gas Leak Surveys**

(1) Operators must perform gas leak surveys using a gas detection instrument covering the following areas:

(a) Over all mains, services, and transmission lines including the testing of the atmosphere near other utility (gas, electric, telephone, sewer, or water) boxes or manholes, and other underground structures;

Finding(s):

a) PSE leak survey contractor, Heath Consultants, conducted residential leak surveys in a development known as Crystal Ridge in Puyallup, OP map number 248.074. Records indicate that the mains in the development were surveyed starting on 02/06/2003 by mobile flame ionization equipment and that the services were surveyed between the dates of 02/24/2003 and 04/19/2003 by portable walking flame ionization equipment. Records do not show that the main was walked with portable flame ionization equipment but PSE personnel indicated that it was. PSE personnel also stated that not all of the main would have been walked with portable equipment but that most of it would have because the survey technician leaves the equipment on while walking between services.

WAC 480-93-188 requires that leak surveys be conducted "over" all mains and services. The main in this development is in a joint trench easement located in the front yards of the residences approximately 15 to 20 feet from the paved street where the mobile leak survey was conducted. Between the main and the street is a curb, grass strip, sidewalk and more grass. A mobile survey can't be conducted

over the main as required because the main is approximately 15 to 20-feet from the street.

Response:
PSE has reviewed our leak survey practices and concluded that this leak survey was performed with portable flame ionization equipment over the main as required by WAC 480-93-188. PSE is working with our leak survey contractor to revise documentation procedures to more clearly document the method of performing future leak surveys of mains outside the reach of a mobile flame ionization unit.

b) 919 Valley Ave, Puyallup (11105 Valley Ave) PSE provided several maps indicating what was leak surveyed at this address. The maps indicate that portions of the main serving this address were thought to be in a different location and were not leak surveyed as required.

Response:
The map for this address has been updated to document the correct location of the main and services for this location and a new leak survey was performed in January 2006. PSE has reviewed this situation and determined that the Map Accuracy Initiative, committed to in Docket PG-040210, is the appropriate mechanism to identify where similar situations may exist and develop processes to perform additional investigation and to update maps as necessary.

c) PSE has a rooftop service to Spinning Elementary located at 1306 E. Pioneer Ave. in Puyallup. PSE was unable to provide documentation showing that the service has been leak surveyed on an annual basis as required for high occupancy structures.

Response:
PSE has developed processes for identifying and inspecting these types of hard to reach locations for atmospheric corrosion. PSE will enhance these processes to also identify locations that require special access to perform leak surveys. These processes will be implemented for leak survey by December 31, 2007.

9. **WAC 480-93-188(2) Gas Leak Surveys**

(2) Gas detection instruments must be maintained, tested for accuracy, calibrated, and operated in accordance with the manufacturer's recommendations. If there are no manufacturer's recommendations, then instruments must be tested for accuracy at least monthly, but not to exceed forty-five days between testing, and include testing at least twelve times per year. Any instrument that fails its applicable tolerances must be calibrated or removed from service.

Finding(s):
The following instruments were not calibrated according to the schedule outlined in PSE's procedure manual, procedure 2450.1600.

Note: PSE procedure 2450.1600 requires monthly calibration after 6/1/2005 and 4X year prior to this date for MSA-60 gas scopes.

Pilchuck Contractors, 100% record review:

a) Pilchuck records indicate that Gascope **#475** was calibration checked on 12/13/2003 and then sent for repair on 06/15/2004. This exceeds the maximum 4 month timeframe between calibration checks in effect at the time.

b) Pilchuck records indicate that Gascope **#5425** was calibration checked on 08/25/2003 and sent in for calibration again on 02/14/2004. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

c) Pilchuck records indicate that Gascope **#5729** was calibration checked on 08/02/2004 and sent in for calibration again on 02/25/2005. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

d) Pilchuck records indicate that Gascope **#5729** was calibration checked on 02/25/2005 and sent in for calibration again on 06/29/2005. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

e) Pilchuck records indicate that Gascope **#6359** was calibration checked on 07/23/2004 and sent in for calibration again on 01/31/2005. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

f) Pilchuck records indicate that Gascope **#6758** was calibration checked on 02/03/2004 and sent in for calibration again on 06/09/2004. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

g) Pilchuck records indicate that Gascope **#12160** was calibration checked on 10/02/2004 and sent in for calibration again on 03/14/2005. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

Response:
PSE is working with Pilchuck to evaluate and revise their accuracy check processes. The process revisions will be implemented by December 31, 2006 and will result in these instruments being checked and calibrated as required by PSE standards.

Puget Sound Energy crews, approximately 15% of records reviewed:

a) PSE records indicate that Gascope **#6241** was calibration checked on 09/30/2004 and again on 11/02/2005. This exceeds the maximum 4 month timeframe between calibration checks in effect at the time.

b) PSE records indicate that Gascope **#4652** was calibration checked on 03/30/2004 and again on 09/02/2004. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

c) PSE records indicate that Gascope **#9970** was calibration checked on 02/09/2005 and again on 06/29/2005. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

d) PSE records indicate that Gascope **#1282** was calibration checked on 04/28/2004 and again on 09/09/2004. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

e) PSE records indicate that Gascope **#11081** was calibration checked on 04/19/2004 and sent in for calibration again on 10/05/2004. This exceeds the maximum 4-month timeframe between calibration checks in effect at the time.

Response:
PSE has recently converted the management of instrument calibration information to the SAP system. As a result of this transition, the SAP enhancements that were implemented in 2005 will benefit this maintenance program and PSE will be able to consistently enter data for instrument maintenance as well as monitor approaching accuracy check due dates. These enhancements will facilitate accuracy checks and calibration of these instruments as required by PSE standards.

PSE will also utilize SAP to track instruments out of service and the users of the instruments to help document compliance with the requirements detailed in PSE Gas Operating Standard 2450.1600, "Instrument Calibration."

Potelco Contractors, 100% of records reviewed: (10/2005 thru 5/2006)
The following combustible gas indicators (CGI) missed the monthly NTE 45 day calibration requirements as outlined in PSE procedure 2450.1600.

a) CGI #960, missed 11/05, 02/06 and 04/06.
b) CGI #963, missed 11/05, 01/06, 02/06 and 04/06.
c) CGI #1013, missed 11/05, 01/06, 02/06 and 04/06.
d) CGI #1018, missed 10/05, 12/05, 01/06, 03/06, 04/06 and 05/06
e) CGI #1023, missed 11/05, 01/06, 02/06 and 04/06.
f) CGI #1109, missed 11/05, 01/06, 02/06, 04/06 and 05/06.
g) CGI #1121, missed 10/05, 12/05, 02/06 and 04/06.
h) CGI #1124, missed 10/05, 12/05, 02/06 and 04/06.
i) CGI #1217, missed 10/05, 11/05, 12/05, 02/06 and 04/06.
j) CGI #1240, missed 11/05, 01/06, 02/06, 03/06 and 05/06.
k) CGI #1248, missed 11/05, 01/06 and 03/06.
l) CGI #1390, missed 10/05, 11/05, 01/06 and 03/06.
m) CGI #1699, missed 10/05, 12/05, 02/06 and 04/06.
n) CGI #2140, missed 10/05, 11/05, 01/06, 02/06 and 04/06.
o) CGI #2305, missed 11/05, 01/06, 02/06, 04/06 and 05/06.

p) CGI #2467, missed 11/05, 12/05, 01/06 and 03/06.
q) CGI #2701, missed 11/05, 01/06, 02/06, 03/06, 04/06 and 05/06.
r) CGI #3564, missed 11/05, 12/05, 01/06, 02/06, 03/06, 04/06 and 05/06.
s) CGI #3821, missed 11/05, 01/06, 02/06, 03/06 and 05/06.
t) CGI #3882, missed 11/05, 12/05, 01/06, 03/06 and 04/06.
u) CGI #3999, missed 11/05, 12/05, 01/06, 02/06 and 03/06.
v) CGI #4433, missed 10/05, 12/05 and 02/06.
w) CGI #4606, missed 11/05, 12/05, 01/06, 02/06, 03/06 and 05/06.
x) CGI #5188, missed 10/05, 12/05, 01/06, 03/06 and 04/06.
y) CGI #5411, missed 11/05, 01/06, 02/06 and 04/06.
z) CGI #5707, missed 11/05, 01/06, 03/06 and 05/06.
aa) CGI #5708, missed 11/05, 01/06, 02/06, 03/06 and 05/06.
bb) CGI #5723, missed 10/05, 12/05, 01/06, 02/06 and 03/06.
cc) CGI #5737, missed 10/05, 12/05, 01/06, 02/06, 03/06 and 05/06.
dd) CGI #6072, missed 10/05, 11/05, 02/06 and 04/06.
ee) CGI #6225, missed 10/05, 11/05, 01/06, 02/06, 04/06 and 05/06.
ff) CGI #6405, missed 10/05, 12/05 and 02/06.
gg) CGI #6780, missed 10/05, 12/05, 01/06, 03/06 and 04/06.
hh) CGI #7641, missed 11/05, 01/06, 02/06 and 04/06.
ii) CGI #8060, missed 11/05, 01/06, 02/06 and 04/06.
jj) CGI #9977, missed 10/05, 11/05, 12/05, 02/06 and 04/06.
kk) CGI #9988, missed 10/05, 11/05, 12/05, 02/06, 03/06 and 05/06.
ll) CGI #9933, missed 10/05, 12/05, 01/06, 02/06, 04/06 and 05/06.
mm) CGI #9998, missed 01/06, 03/06 and 05/06.
nn) CGI #11377, missed 11/05, 12/05, 01/06, 03/06, 04/06 and 05/06.

Response:
PSE is working with Potelco to evaluate and revise their accuracy check processes. The process revisions will be implemented by December 31, 2006 and will result in these instruments being checked and calibrated as required by PSE standards.

10. **49 CFR §192.475(b) Internal Corrosion Control: General**

(b) Whenever any pipe is removed from a pipeline for any reason, the internal surface must be inspected for evidence of corrosion.

49 CFR §192.491 goes on to require the following:

(c) Each operator shall maintain a record of each test, survey, or inspection required by this subpart in sufficient detail to demonstrate the adequacy of corrosion control measures or that a corrosive condition does not exist.

Finding(s):
PSE personnel provided us with inspection records for the 16-inch re-locate project located at 24th St E and 138th Ave E in Sumner, job #109001662. We were given a list of 6 areas that had sections of the existing 16-inch pipeline removed during the course of construction. They included exposed pipe condition reports (EPCR's) with the following

identification numbers: 75643, 75644, 75645, 75646, 75647 and 75648. Of the six areas identified, PSE records indicate that only one site, 75646, had an internal corrosion assessment completed.

Response:
PSE is working with our Service Providers to communicate with appropriate personnel the requirement to document the inspection of the internal surface of the pipe anytime pipe is removed from service. This communication will be completed by October 31, 2006.

11. **WAC 480-93-110(2) Corrosion Control**

(2) Each operator must complete remedial action within ninety days to correct any cathodic protection deficiencies known and indicated by any test, survey, or inspection. An additional thirty days may be allowed for remedial action if due to circumstances beyond the operator's control it is not possible to complete remedial action within ninety days. Each operator must be able to provide documentation to the commission indicating that remedial action was started in a timely manner and that all efforts were made to complete remedial action within ninety days. (Examples of circumstances allowing operators to exceed the ninety-day time frame include right of way permitting issues, availability of repair materials, or unusually long investigation or repair requirements).

Finding(s):
Records indicate that for the following cathodic protection deficiencies, PSE exceeded the 90 day remedial action timeframe allowed.

a) **EPCR – ID #77004,** low read found on 1/20/2004 and remediated on 9/17/2004.
b) **EPCR – ID #78572,** low read found on 1/26/2004 and remediated on 7/30/2004.
c) **EPCR – ID #78574,** low read found on 1/26/2004 and remediated on 7/30/2004.
d) **EPCR – ID #78571,** low read found on 1/26/2004 and remediated on 7/30/2004.
e) **EPCR – ID #77319,** low read found on 1/27/2004 and remediated on 5/12/2004.
f) **EPCR – ID #78109,** low read found on 3/10/2004 and remediated on 7/19/2004.
g) **EPCR – ID #77680,** low read found on 3/11/2004 and remediated on 9/14//2004.
h) **EPCR – ID #77892,** low read found on 3/15/2004 and remediated on 12/06/2004.
i) **EPCR – ID #77934,** low read found on 3/18/2004 and remediated on 06/23/2004.
j) **EPCR – ID #78056,** low read found on 3/31/2004 and remediated on 2/09/2005.
k) **EPCR – ID #78899,** low read found on 4/5/2004 and remediated on 8/10/2004.
l) **EPCR – ID #78568,** low read found on 4/12/2004 and remediated on 9/9/2004.
m) **EPCR – ID #78616,** low read found on 4/27/2004 and remediated on 8/2/2004.
n) **EPCR – ID #78630**, low read found on 5/4/2004 and remediated on 8/9/2004.
o) **EPCR – ID #78651,** low read found on 5/4/2004 and remediated on 8/9/2004.
p) **EPCR – ID #78817,** low read found on 5/4/2004 and remediated on 10/18/2004.
q) **EPCR – ID #80645,** low read found on 5/5/2004 and the main was replaced on 4/12/2006.
r) **EPCR – ID #78739,** low read found on 5/17/2004 and remediated on 9/30/2004.
s) **EPCR – ID #78977,** low read found on 5/17/2004 and remediated on 10/26/2004.

t) **EPCR – ID #80384,** low read found on 6/2/2004 and remediated on 11/9/2004.
u) **EPCR – ID #79500,** low read found on 6/3/2004 and remediated on 9/16/2004.
v) **EPCR – ID #78039,** low read found on 6/9/2004 and remediated on 11/3/2004.
w) **EPCR – ID #79449,** low read found on 6/22/2004 and remediated on 10/12/2004.
x) **EPCR – ID #79406,** low read found on 6/23/2004 and remediated on 5/9/2005.
y) **EPCR – ID #79409,** low read found on 6/23/2004 and remediated on 10/22/2004.
z) **EPCR – ID #79559,** low read found on 7/8/2004 and remediated on 11/11/2004.
aa) **EPCR – ID #79787,** low read found on 7/20/2004 and remediated on 11/9/2004.
bb) **EPCR – ID #79935,** low read found on 7/26/2004 and remediated on 11/13/2004.
cc) **EPCR – ID #79989,** low read found on 8/9/2004 and remediated on 4/27/2005.
dd) **EPCR – ID #79970,** low read found on 8/17/2004 and remediated on 1/12/2005.
ee) **EPCR – ID #80272,** low read found on 8/26/2004 and remediated on 1/25/2005.
ff) **EPCR – ID #80843,** low read found on 9/1/2004 and remediated on 1/24/2005.
gg) **EPCR – ID #80842,** low read found on 9/1/2004 and remediated on 1/24/2005.
hh) **EPCR – ID #80849,** low read found on 9/1/2004 and remediated on 12/7/2004.
ii) **EPCR – ID #80389,** low read found on 9/2/2004 and remediated on 8/8/2005.
jj) **EPCR – ID #86179**, low read found on 10/28/2005 and remediated on 3/24/2006.
kk) **EPCR – ID #81725,** low read found on 10/19/2004 and remediated on 2/14/2005.
ll) **EPCR – ID #81052,** low read found on 10/21/2004 and remediated on 3/17/2005.
mm) **EPCR – ID #81135,** low read found on 10/22/2004 and remediated on 3/17/2005.
nn) **EPCR – ID #81724,** low read found on 10/23/2004 and remediated on 2/14/2005.
oo) **EPCR – ID #81270,** low read found on 11/8/2004 and remediated on 3/23/2005.
pp) **EPCR – ID #81343,** low read found on 11/9/2004 and remediated on 3/23/2005.
qq) **EPCR – ID #81389,** low read found on 11/16/2004 and remediated on 3/8/2005.
rr) **EPCR – ID #81695,** low read found on 12/2/2004 and remediated on 3/8/2005.
ss) **EPCR – ID #81743,** low read found on 1/5/2005 and remediated on 5/25/2005.
tt) **EPCR – ID #81757,** low read found on 2/2/2005 and remediated on 5/6/2005.
uu) **EPCR – ID #81809,** low read found on 2/2/2005 and remediated on 5/26/2005.
vv) **EPCR – ID #81773,** low read found on 2/7/2005 and remediated on 5/9/2005.
ww) **EPCR – ID #81828,** low read found on 2/17/2005 and remediated on 6/1/2005.
xx) **EPCR – ID #81796,** low read found on 2/22/2005 and remediated on 6/1/2005.
yy) **EPCR – ID #82506,** low read found on 4/15/2005 and remediated on 7/19/2005.
zz) **EPCR – ID #83826,** low read found on 4/29/2005 and appears to still have low cathodic protection levels according to records.
aaa) **EPCR – ID #83808,** low read found on 7/18/2005 and remediated on 11/15/2005.
bbb) **EPCR – ID #83584,** low read found on 7/21/2005 and remediated on 11/14/2005.
ccc) **EPCR – ID #85216,** low read found on 8/5/2005 and remediated on 11/28/2005.
ddd) **EPCR – ID #85219,** low read found on 8/17/2005 and remediated on 12/19/2005.
eee) **EPCR – ID #85041,** low read found on 9/29/2005 and remediated on 1/4/2006.

Response:
PSE developed and implemented new processes for responding to low PSP reads in 2005. These new processes have resulted in a significant reduction in the time required to remediate low PSP reads, particularly low reads identified on exposed pipe condition reports. In addition, PSE regularly evaluates these processes and implements improvements when appropriate.

PSE has continued to discuss the challenges associated with remediating all low reads within the timeframe specified in the WAC regulations with Staff. These discussions resulted in a revision to the code that allowed an additional 30 days to remediate low PSP reads when the circumstance that caused the additional time was beyond the operators' control. This revision combined with the process improvements will result in PSE remediating the majority of low PSP reads on time. However, there are still some situations that are not able to be remediated within the required timeframe due to circumstances outside PSE's control such as long lead permits. PSE will continue to review these challenges with Staff and discuss possible solutions.

AREAS OF CONCERN

1. PSE has a distribution system in the Tacoma tideflats industrial area that has a maximum allowable operating pressure (MAOP) that PSE indicated was 100 psig.
PSE procedure 6.14, section 6.2, dated 04/07/1997, requires each steel service line less than 2-inches in diameter, and installed from mains designed to operate above 60 psig to be tested to 450 psig.
Records indicate that a 1-inch steel service line at 2000 Taylor Way, Tacoma was tested to 96 psig and not 450 psig as required. This service was installed in 1998.
In addition to not meeting the requirements of PSE's procedure manual, this service line cannot have a 100 psig MAOP due to the requirements of 49 CFR §192.619(a)(2)(ii).
The MAOP of this distribution system cannot exceed 99 psig.

   Response:
   The MAOP records have been updated to reflect the correct MAOP.

2. PSE procedure 2600.1500, section 4.4 requires that electrical isolation tests be performed between casings and carrier pipe annually not to exceed 15 months. This requirement is for the purposes of complying with 49 CFR §192.467(d) and WAC 480-93-115 (now 480-93-110(5)). At the time these casings were installed, WAC 480-93-115 required only that casings be tested annually. PSE met this requirement but did not conduct electrical isolation tests at a frequency not to exceed 15 months for the following casing test sites as required by its own procedure.
   a) Records indicate that casing test site #TS-049330, located at 218th Ave E & 64th St E was tested on 01/27/2004 and again on 08/31/2005. Records indicate that on 05/10/2005, the test site was unreadable.

b) Records indicate that casing test site #TS-049329, located at 218th Ave E & 64th St E was tested on 01/27/2004 and again on 08/31/2005. Records indicate that on 05/10/2005, the test site was unreadable.

c) Records indicate that casing test site #TS-049327, located at 218th Ave E & 64th St E was tested on 01/27/2004 and again on 08/31/2005. Records indicate that on 05/10/2005, the test site was unreadable.

d) Records indicate that casing test site #TS-049325, located at 218th Ave E & 64th St E was tested on 01/27/2004 and again on 08/31/2005. Records indicate that on 05/10/2005, the test site was unreadable.

Response:
The SAP Process Improvements Program, committed to under Dockets PG-030080 and PG-030128 and implemented in 2005, was designed to prevent late inspections such as those identified in this AOC.

3. PSE procedure 2625.1100, section 4, Table 4 requires that leak surveys be conducted annually not to exceed 15 months on "High Occupancy Structures." PSE procedure 2625.1100 section 3.2.1 defines multi family housing as a "High Occupancy Structure" when it is occupied by 20 or more people on at least 5 days per week for 10 weeks in any 12 month period. The multi family units listed here appear to meet this definition. Records provided by PSE indicate that the following multi family housing units located within the Ft. Lewis military base were only surveyed once every 5 years. PSE did indicate that in late 2005, their CLX database identified these areas as "High Occupancy Structures" and that they would now be leak surveyed annually.

a) 4290 N. 1st St (mtr#918544)

b) 2021 N. 6th St C (mtr #604751)

c) 2021 N. 6th St D (mtr #656005)

Response:
PSE works to identify high occupancy structures throughout our service territory and to place them on the appropriate leak survey schedule when they are identified. In 2005, PSE began implementing a new system for classifying customers that resulted in more accurate identification of high occupancy structures. This system continues to be implemented and, combined with ongoing identification of high occupancy structures by our leak survey personnel, will identify these facilities and place them on the appropriate leak survey schedule.

4. Records indicate that PSE has a 2-inch steel wrapped main inserted in an 8-inch cast iron casing located at S 7th St and St Helens Ave in Tacoma. WAC 480-93-115 prohibits the installation of steel in anything other than bare steel due to shielding which may affect the application of cathodic protection.

Response:
Per Docket #UG-941394, PSE is committed to replacing all steel wrapped main installed in cast iron casing prior to WAC 480-93-115 or verifying that it is electrically isolated from the casing and monitoring it annually to verify they remain electrically isolated and cathodically protected.

In accordance with this commitment, PSE is planning to replace this facility. A job has been created and is targeted to be completed in 2006.

5. PSE has several pipeline markers with Washington Natural Gas (WNG) logos on them. In addition, PSE did not have pipeline markers at certain locations as required by WAC 480-93-124(2)(b).

a) 49 CFR §192.707(a) requires that markers be installed over each main and transmission line in class 1 and 2 locations and in areas where potential damage could occur to the pipeline. These areas of concern could become probable violations if it is found that markers with improper company names are found in these areas.
The following are areas where WNG markers were present at the time of this inspection:
(1) 7th St Se and 11th Ave SE, (SE corner) Puyallup.
(2) 18th Ave E and 152nd St E, (NE corner) Puyallup.
(3) 25th St SE and 12th Ave SE, (SW corner) Puyallup.
(4) 83rd Ave E and 160th St E, (NE corner) Puyallup.
(5) 17 East Valley Hwy, (W side) Pacific.
(6) North of 17 East Valley Hwy, (W side) Puyallup.

b) PSE did not have pipeline markers at the following locations as required by WAC 480-93-124(2)(b).
(1) Railroad crossing at 5th St SE between E. Main Ave and E. Pioneer, Puyallup.
(2) Railroad crossing at 7th St SE between E. Main Ave and E. Pioneer, Puyallup.
(3) Railroad crossing at 10th St SE between E. Main Ave and E. Pioneer, Puyallup.
(4) Railroad crossing at 23rd St SE between E. Main Ave and E. Pioneer, Puyallup.
(5) Railroad crossing at approx. 142 Ave E and 136 St Ct E (approx. 500' north), McMillan.

Response:
Item a
PSE has reviewed these pipeline markers and confirmed that they are not required by the regulations. Two were determined to provide some benefit due to potential future construction in the area. As a result, the labels were updated and the markers were added

to the pipeline marker program ensuring future maintenance of the markers. The other pipeline markers were removed.

Item b
PSE has been working to identify where new markers are required per the new WAC requirements. Additional efforts and significant review are required to identify locations where markers are required per the new WAC regulations. Therefore, PSE will continue working to identify and install pipeline markers as required per the new WAC code. PSE plans to complete the identification and installation of these markers by December 2007.

6. PSE has a service located at 9914 119th St SW in Lakewood. A portion of the steel service line is exposed to the atmosphere. The service line shows indications of pitting and moderate to severe atmospheric corrosion.

Response:
The portion of the service with pitting was a normally buried section of pipe that was protected from corrosion by cathodic protection. The customer exposed this section of the pipe and did not promptly backfill the pipe. PSE replaced this service on August 28, 2006. In addition, PSE will remind personnel that if they see a section of pipe that has been exposed by the customer to report it using the Continuing Surveillance report, Form 3704 "Reporting Abnormal or Unusual Operating Conditions on Gas Facilities." This will enable us to follow-up with the customer and remediate the situation.

PSE respects the Commission's responsibilities in auditing and enforcing pipeline safety regulations and continues our efforts to construct and operate a safe natural gas system that 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