



STATE OF WASHINGTON

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

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Ref. No. Docket PG-080031

CERTIFIED MAIL

December 23, 2008

Bert A. Valdman
Executive VP & COO
Puget Sound Energy
P.O. Box 90868 MS: EST-07W
Bellevue, Washington 98009-0868

Dear Mr. Valdman:

Re: 2008 Standard Inspection of Pierce County Distribution System

We conducted a natural gas inspection from June 23, 2008 through October 18, 2008, of Puget Sound Energy's (PSE) Pierce county distribution system. The inspection included a maintenance records review and inspection of the pipeline facilities.

Our inspection indicates a series of 11 probable violations, as noted in the enclosed report. We also noted two areas of concern, which unless corrected, could potentially lead to future violations of state and/or federal pipeline safety rules.

Your response needed

Please review the attached report and respond in writing by January 23, 2009. The response should include how and when you plan to bring the probable violations into full compliance. We also request your response to our areas of concern. As we have done in the past, we welcome the opportunity for a meeting to discuss your response to our findings.

What happens after you respond to this letter?

The attached report presents staff's decision on probable violations and does not constitute a finding of violation by the commission at this time.



After you respond in writing to this letter, there are several possible actions the commission, in its discretion, may take with respect to this matter. For example, the commission may:

- Assess an administrative penalty under RCW 81.88.040, or
- Issue a complaint, seeking monetary penalties, changes in the company's, practices, or other relief authorized by law, and justified by the circumstances, or
- Consider the matter resolved without further commission action.

We have not yet decided whether to pursue a complaint or penalty in this matter. Should an administrative law judge decide to pursue a complaint or penalty; your company will have an opportunity to present its position directly to the commissioners.

If you have any questions, or if we may be of any assistance, please contact Lex Vinsel at (360) 664-1319. Please refer to docket number PG-080031 in any future correspondence regarding this inspection.

Thank you for your cooperation and interest in pipeline safety.

Sincerely,



David W. Danner
Executive Director and Secretary

Enclosures

cc: Anne F. Soiza, Director, Pipeline Safety
Mike Hobbs, PSE
Duane Henderson, PSE
Helge Ferchert, PSE

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
2008 Natural Gas Pipeline Standard Inspection Report
Puget Sound Energy – Pierce County District
Docket No. PG-080031

The following probable violation(s) of Title 49, CFR Part 192 and WAC 480-93 were noted as a result of the 2008 pipeline safety inspection of Puget Sound Energy (PSE) Pierce County 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. **WAC 480-93-018(5) Records**

- (5) *Each gas pipeline company must update its records within six months of when it completes any construction activity and make such records available to appropriate company operations personnel.*

Charge:

PSE did not update records (maps) within six months of completion of construction activity and make them available to appropriate company operations personnel as required.

Findings:

- a) PSE failed to update Map #246.50 Rev 06/23/08 to reflect the addition of new services within 6 months as required. Map #246.50 Rev 01/19/05 was redlined during a leak survey on 3/26/07 to show 7 new services. Five of those 'new services' do NOT appear on the Map #246.50 Rev 06/23/08 map.
- i) 7822 A & B 49th St Ct W
 - ii) 7819 79th Ave W
 - iii) 4819 80th Ave W
 - iv) 5522 80th Ave Ct W
 - v) 4812 81st Ave W(Sunset Drive)
- b) PSE failed to update Map #214.57 Rev 06/19/08 to reflect the addition of new services within 6 months as required. Map #214.57 Rev 06/11/07 was redlined during a leak survey on 8/13/07 to show 2 new services. Both of those 'new services' do NOT appear on the Map # 214.57 Rev 06/19/08 map.
- i) Two new services east of Shop Rite on 178th St.
 - ii) 18011 99th Ave
 - iii) 18005 99th Ave

2. **WAC 480-93-100 (1)(i), (2)(f), (3) Valves**

(1) *Each gas pipeline company must have a written valve maintenance program detailing the valve selection process, inspection, maintenance, and operating procedures. The written program must detail which valves will be maintained under 49 CFR § 192.745, 49 CFR § 192.747, and this subsection. The written program must also outline how the gas pipeline company will monitor and maintain valves during construction projects to ensure accessibility. The following criteria and locations must be incorporated in the written program. The written program shall explain how each of the following are considered in selecting which valves require annual inspections and maintenance under 49 CFR §192.747:*

(i) *High occupancy structures or areas.*

(2) *Each gas pipeline company must have a written service valve installation and maintenance program detailing the valve selection process, inspection, maintenance, and operating procedures. The written program must detail which new services will be required to have valves installed and maintained under this section. Service valve installation requirements do not apply to existing services (they are not retroactive). Existing service valves that historically have not been maintained but are deemed necessary for maintenance by the written valve maintenance program must be maintained in accordance with subsection (3) of this section (service valve maintenance requirements are retroactive). The written program shall explain how each of the following criteria and/or locations are considered in selecting which services will have valves installed and/or maintained under this subsection:*

(f) *Services to high occupancy structures or areas.*

(3) *All service valves selected for inspection in the program required in subsection (2) of this section must be operated and maintained at least once annually, but not to exceed fifteen months between operation and maintenance.*

Charge:

PSE did not complete required annual HOS valve maintenance for High Occupancy Structures or areas annually or within 15 months as required.

Findings:

PSE did not perform annual valve maintenance on 52 HOS valves within the required time frame. Refer to Attachment B for the list of past due valves.

3. **WAC 480-93-110(2) Corrosion control**

(2) *Each gas pipeline company 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 gas pipeline company's control the company cannot complete remedial action within ninety days. Each gas pipeline company 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 each gas pipeline company to exceed the ninety-day time frame include right of way permitting issues, availability of repair materials, or unusually long investigation or repair requirements.)

Charge:

PSE did not correct cathodic protection deficiencies within 90 days as required.

Findings:

46 EPCRs that had low CP reads and were not remediated within 90 days.

Refer to Attachment C for the list of past due facilities identified.

4. **WAC 480-93-170(4) Tests and Reports for gas pipelines**

4) *All service lines that are broken, pulled, or damaged, resulting in the interruption of gas supply to the customer, must be pressure tested from the point of damage to the service termination valve (generally the meter set) prior to being placed back into service.*

Charge:

PSE failed to complete required testing for a broken, pulled or damaged pipeline.

Findings:

PSE cannot provide documentation that they completed pressure testing after excavation. Seven Leak Work Orders out of 345 Leak Work Orders reviewed do NOT have record of the required pressure test from point of damage back to the meter set.

#N0025250

#N0025830

#N0025891

#N0025962

#N0028228

#N0028285

#N0028824

5. **WAC 480-93-178 (2) Protection of plastic pipe**

(2) *The gas pipeline company must follow the manufacturer's recommendation for maximum cumulative ultraviolet light exposure limit for plastic pipe. If there is no such recommendation, the gas pipeline company must not expose plastic pipe to ultraviolet light for more than two years. Each gas pipeline company must include the applicable ultraviolet exposure time limit in its procedures manual.*

Charge:

(a) Potelco (PSE) did not follow storage procedure PSE 2450.1500 § 3.6 for storage of PE pipe.

- (b) Potelco (PSE) did not follow storage procedure PSE 2450.1500 § 3.5 for storage of PE pipe.

Findings:

- (a) Potelco (PSE) storage yard contained PE pipe manufactured (07/10/1998) more than two years old.
 (b) Potelco (PSE) stored PE pipe on the ground.

6. **WAC 480-93-186(2) Leak evaluation**

(2) *Each gas pipeline company must establish a procedure for evaluating the concentration and extent of gas leakage. When evaluating any leak, the gas pipeline company must determine and document the perimeter of the leak area. If the perimeter of the leak extends to a building wall, the gas pipeline company must extend the investigation inside the building. Where the reading is in an unvented, enclosed space, the gas pipeline company must consider the rate of dissipation when the space is ventilated and the rate of accumulation when the space is resealed.*

Charge:

PSE failed to document on the leak work order that an inside survey was performed as required when gas is detected at the building wall per WAC 480-93-186(2) and PSE procedure manual 2625.1200 §9.1.1.

Findings:

PSE personnel did not record that a leak check was performed inside buildings when gas was detected at the building wall for the following Leak Work Orders.

Leak Work Order	No Inside test	No Leak cause
N0025231	X	X
N0029342	X	
N0025467	X	
N0020261	X	
N0011365	X	
N0026191	X	
N0026166	X	
N0024987	X	
N0024966	X	
N0024868	X	
N0027898	X	
N0027682	X	
N0025373	X	
N0025067	X	
N0025638	X	
N0024878	X	
N0025487	X	
N0020261	X	

7. **WAC 480-93-186 (3) Leak evaluation**

(3) *The gas pipeline company must check the perimeter of the leak area with a combustible gas indicator. The gas pipeline company must perform a follow-up inspection on all leak repairs with residual gas remaining in the ground as soon as practical, but not later than thirty days following the repair.*

Charge:

PSE failed to perform a follow up leak inspection on all leak repairs with residual gas remaining in the ground within thirty days as required.

Findings:

The following Leak Work Orders do NOT show the required follow-up inspection within 30 days when residual gas was detected.

- #N0010393
- #N0018215
- #N0021268
- #N0024682

8. **WAC 480-93-187(10) Gas leak records**

Each gas pipeline company must prepare and maintain permanent gas leak records. The leak records must contain sufficient data and information to permit the commission to assess the adequacy of the gas pipeline company's leakage program. Gas leak records must contain, at a minimum, the following information:

(10) *Leak cause;*

Charge:

PSE personnel failed to correctly code the LEAK CAUSE on 14 Leak Work Orders.

Findings:

Fourteen cases where the Leak Cause was recorded F- Other or G-equipment when the correct cause was B-excavation or H-outside forces.

Leak Work Order	Recorded Cause	Correct Cause	Comments
N0026606	F - Other	H - Outside Forces	
N0026558	F - Other	B - Excavation	Excavation – Third Party
N0027775	G - Equipment	B - Excavation	Excavation – Third Party
N0027245	G - Equipment	B - Excavation	Excavation – Third Party
N0027250	G - Equipment	B - Excavation	Excavation – Third Party
N0027240	G - Equipment	B - Excavation	Directional Drilling(Excavation)
N0027632	F - Other	B - Excavation	Removing Fence Posts - Service too shallow
N0027613	F - Other	(B) - Excavation	Looks to be 3 rd Party
N0027596	F - Other	B - Excavation	Excavation – Third Party
N0027481	F - Other	B - Excavation	Excavation – Third Party

N0027392	F - Other	B - Excavation	Should be Third Party
N0027195	F - Other	B - Excavation	Excavation – Third Party
N0027969	G - Equipment	B - Excavation	Third Party
N0027716	F - Other	(B) - Excavation	Broken 2 inch main, probably third party.

9. **WAC 480-93-188(1)(c) Gas leak surveys**

(1) *Each gas pipeline company must perform gas leak surveys using a gas detection instrument covering the following areas and circumstances:*

(c) *On all above ground piping (may be checked with either a gas detection instrument or with a soap solution);*

Charge:

PSE did not record gas leak surveys for above ground areas as required.

Findings:

PSE cannot demonstrate that the above ground pipe section of service #1 (Puyallup Fairgrounds) was checked for gas leaks as required. This service is marked as item #1 on Puyallup Fairgrounds map 250.73, just west of the Gold Gate (Meridian & 9th).

10. **WAC 480-93-188(4)(e) Gas leak surveys**

(4) *Each gas pipeline company must conduct special leak surveys under the following circumstances:*

(e) *After third-party excavation damage to services, each gas pipeline company must perform a gas leak survey from the point of damage to the service tie-in.*

Charge:

PSE did not perform a gas leak survey (bar hole testing) from point of break to the service tie in for 69 Leak Work Order's

Findings:

PSE could NOT show documentation of required leak surveys back to the tie in after third party hits on over 19% of Third Party Leak Work Orders reviewed. 356 3rd Party Leak Work Orders were evaluated and 69 did not show a leak survey (bar hole testing) from the break back to the tie in as required. Refer to Attachment A for the list of Leak Work Orders numbers.

11. **49 CFR §192.491 (a)(b)(c)Corrosion control records**

(a) *Each operator shall maintain records or maps to show the location of cathodically protected piping, cathodic protection facilities, galvanic anodes, and neighboring structures bonded to the cathodic protection system. Records or maps showing a stated number of anodes, installed in a stated manner or spacing, need not show specific distances to each buried anode.*

(b) *Each record or map required by paragraph (a) of this section must be retained for as long as the pipeline remains in service.*

- (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. These records must be retained for at least 5 years, except that records related to §§192.465(a) and (e) and 192.475(b) must be retained for as long as the pipeline remains in service.*

Charge:

PSE failed to provide records demonstrating that an anode was attached to the pipeline before backfilling a corrosion leak on bare pipe.

Findings:

The following PSE Leak Records do NOT show that a galvanic anode was connected to bare steel pipe at the site of a corrosion leak repair.

N0017665
N0028120
N0018481
#N0027620
N0026014
L9804018
N0027687

AREAS OF CONCERN

1. Atmospheric corrosion was found at the Bethel High School meter set. PSE's most recent Atmospheric Corrosion Survey of this meter set on 2/07/2008 rated corrosion as a "Category 1" (no corrosion). PSE personnel stated that the current corrosion rating would be a "2" (surface corrosion) or possibly a "3" (minor pitting) and the current condition could not have developed in the time between the 2/07/08 survey and the date of our field inspection (9-15-08). Our concern is that other areas of atmospheric corrosion may have been incorrectly rated. PSE personnel did not follow PSE procedure 4515.1220 *Corrosion Rating System* in rating the condition of atmospheric corrosion. PSE's Subject Matter Expert (SME) agrees that this corrosion, which turned out to be minor pitting, was definitely not a rating of "1" for corrosion.

2. The records for the Puyallup uprate to a MAOP of 60 psig were reviewed. Staff found 52 out of 318 pipe sections listed in the Puyallup uprate without a pressure test to substantiate the uprate. Also there were two cases where the pressure test was less than the required 90 psig required to substantiate an MAOP uprate to 60 psi.

We reviewed PSE's uprate procedure 2575.2500 §5.2.1.4.2 for IP mains. The procedure states "*For IP main, if the original pressure test document **cannot** be obtained, historical leak and strength testing requirements from previous Operating Standards may be used as the pressure test document with the approval of the Manager Gas Compliance and Regulatory Audit.*"

We are concerned that this procedure would allow uprating without the required pressure tests or review that would substantiate further uprates.

Per WAC 480-93-155(2), uprates must be based on a previous or current pressure test that will substantiate the intended MAOP. If pressure tests **cannot** be found to substantiate an uprate, then another procedure should be developed to ensure that during and after an uprate, additional tests or surveys are performed. Staff's concern for safety would **not** allow uprating when pressure tests are unavailable to substantiate the intended MAOP.

1. N0024946
2. N0024965
3. (N0025129)
4. (N0025182)
5. (N0025244)
6. (N0025247)
7. (N0025248)
8. (N0025249)
9. N0025404
10. N0025433
11. N0025509
12. (N0025521)
13. N0025569
14. N0025743
15. N0025750
16. (N0025786)
17. N0025859
18. N0025861
19. N0025918
20. N0025932
21. (N0026032)
22. N0026091
23. N0026160
24. N0026172
25. (N0026201)
26. N0026214
27. (N0026226)
28. N0026272
29. N0026343
30. N0026346
31. (N0026414)
32. (N0026420)
33. (N0026422)
34. (N0026424)
35. N0026432
36. (N0026520)
37. (N0026524)
38. N0026574
39. N0026612
40. (N0026642)
41. N0026654
42. (N0026731)
43. (N0026951)
44. (N0027001)
45. N0027088
46. (N0027133)
47. (N0027496)
48. N0027499
49. (N0027670)
50. N0027672
51. N0027736
52. (N0027751)
53. (N0027762)
54. (N0027768)
55. (N0027845)
56. (N0028089)
57. N0028571
58. N0028762
59. N0028773
60. (N0028821)
61. (N0028822)
62. N0028895
63. N0028896
64. (N0028958)
65. N0029014
66. (N0029258)
67. (N0029456)
68. (N0029458)
69. (N0029932)
70. (N0029934)

EPCR	Date		Days		Remediation	Comments
	Notification	Date Found	Date Remediated	Between		
10629974	3/21/2006	8/1/2007		490	replaced	
10630467	3/21/2006	8/1/2007		490	replaced	
10625438	3/30/2006	4/21/2007		381	replaced	
10626162	4/4/2006	6/18/2008		794	replaced	
10630719	5/8/2006	6/29/2009		1131	(-1400 mV)	Date fixed is NEXT year
10652348	6/23/2006	9/30/2006		97	(-1500 mV)	
10635979	6/23/2006	1/31/2007		218	(-950 mV)	
10637651	7/7/2006	8/20/2007		403	(-1400 mV)	
10646419	8/1/2006	1/22/2007		171	(-1402 mV)	
10653871	8/7/2006	12/29/2006		142	(-1100 mV)	
10653873	8/9/2006	12/29/2006		140	(-1100 mV)	
10653874	8/9/2006	12/29/2006		140	(-1100 mV)	
10790357	8/22/2006	12/22/2006		120	replaced	
10649079	9/12/2006	1/22/2007		130	(-1369 mV)	
10721890	11/8/2006	3/7/2007		119	replaced	
10727561	11/8/2006	3/1/2007		113	replaced	
10660619	12/13/2006	8/20/2007		247	(-1400 mV)	
10661022	12/14/2006	3/14/2007		90	(-1111 mV)	
10711536	1/2/2007	8/7/2007		215	(-1023 mV)	
10711535	1/2/2007	11/19/2007		317	(-1333 mV)	
10723945	1/23/2007	8/29/2007		216	(-950 mV)	
10717089	2/1/2007	5/11/2007		100	replaced	
10717287	2/2/2007	6/20/2007		138	replaced	
10718189	2/9/2007	8/1/2007		172	replaced	
10718232	2/9/2007	8/1/2007		172	replaced	
10718423	2/12/2007	10/24/2008		612	Scheduled?	This one is scheduled.
10719904	2/20/2007	6/27/2007		127	(-1318 mV)	
10733224	2/24/2007	6/16/2007		112	(-1218 mV)	
10722015	3/12/2007	7/13/2007		121	replaced	
10723149	3/13/2007	7/13/2007		120	replaced	
10799165	3/16/2007	3/20/2008		364	(-1576 mV)	
10724863	3/26/2007	6/27/2007		91	(-1220 mV)	

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CP remediate after 90 days

10728691	4/10/2007	9/19/2007	159	replaced
10753471	5/17/2007	8/20/2007	93	(-1400 mV)
10753473	5/17/2007	8/20/2007	93	(-1400 mV)
10746427	5/29/2007	11/16/2007	167	(-1330 mV)
10752198	7/24/2007	3/12/2008	228	(-1465 mV)
10751932	7/24/2007	3/12/2008	228	(-1576 mV)
10766467	7/31/2007	4/30/2008	270	(-1172 mV)
10766109	9/14/2007	3/12/2008	178	(-1450 mV)
10770692	9/18/2007	10/22/2008	394	(-1488 mV)
10772706	10/11/2007	10/15/2008	364	(-1400 mV)
10821980	10/22/2007	6/24/2008	242	replaced
10796809	10/23/2007	3/4/2008	131	replaced
10777433	11/6/2007	10/15/2008	339	(-1023 mV)
10798150	12/3/2007	9/11/2008	278	replaced
			0	
			0	

HOS valves inspected late from 2005-2007

ADDRESS	ZIP	2005 PCI	2006 PCI	2007 PCI	Days Late
502 Parksdale Ave	98327	5/18/2005	8/19/2006		1
6318 144 St N"W	98332	5/16/2005	9/7/2006		22
16 Swede-Hill Rd	98335	5/16/2005	9/7/2006		22
1304 17th Ave	98345	4/25/2005	8/12/2006		17
1205 19th Ave	98354	4/25/2005	8/12/2006		17
1702 Minton Way	98354	4/25/2005	8/12/2006		17
2001 Milton Way (Classroom)	98354	4/25/2005	8/12/2006		17
2001 Milton Way (Gym)	98354	4/25/2005	8/12/2006		17
2306 Milton Way	98354	4/25/2005	8/12/2006		17
2003 Taylor St	98354	4/25/2005	8/12/2006		17
2006 Taylor St	98354	4/25/2005	8/12/2006		17
1015 13th St SW	98371		7/18/2006	12/14/2007	26
1110 W Pioneer Ave	98371		7/18/2006	12/14/2007	26
407 14th Ave SE	98372	4/26/2005	8/12/2006		16
407 14th Ave SE	98372	4/26/2005	8/12/2006		16
502 14th Ave SE	98372	4/26/2005	8/12/2006		16
402 14th Ave SE	98372	4/26/2005	8/12/2006		16
101 N E St	98403	7/20/2005	10/25/2006		5
110 N E ST	98403	7/20/2005	10/25/2006		5
111 N E ST	98403	7/20/2005	10/25/2006		5
111 N E ST	98403	7/20/2005	10/25/2006		5
111 N E ST	98403	7/20/2005	10/25/2006		5
7520 25 Ave E	98404	7/18/2005	10/19/2006		1
1115 Division Ln E	98404	7/13/2005	10/19/2006		6
1115 Division Ln E (Gym)	98404	7/13/2005	10/19/2006		6
1024 E 34 St	98404	7/13/2005	10/16/2006		3
1301 E 34 St	98404	7/13/2005	10/16/2006		3
601 E 35 St	98404	7/13/2005	10/16/2006		3
860 E 38 St	98404	7/13/2005	10/16/2006		3
1427 E 40 St	98404	7/13/2005	10/16/2006		3
0126 E 60 St	98404	7/15/2005	10/16/2006		1
1140 E 65 St	98404	7/18/2005	10/19/2006		1
3526 E B St	98404	7/13/2005	10/16/2006		3
702 E Harrison St	98404	7/13/2005	10/16/2006		3
3702 McKinley Ave E	98404	7/13/2005	10/21/2006		7
6317 McKinley Ave E	98404	7/15/2005	10/16/2006		1
1223 Martin Luther King	98405	7/25/2005	10/30/2006		5
1301 Martin Luther King	98405	7/21/2005	10/30/2006		9
2136 Martin Luther King	98405	7/20/2005	10/26/2006		6
2156 Martin Luther King	98405	7/20/2005	10/26/2006		6
423 Martin Luther King	98405	7/25/2005	11/1/2006		6
315 Martin Luther King	98405	7/25/2005	11/1/2006		6
1229 Morelands Dr S	98405	7/22/2005	10/23/2006		1
1212 S 11 St	98405	7/25/2005	11/1/2006		6
3824 S 11 St	6/2/2169	7/22/2005	10/23/2006		1

HOS valves inspected late from 2005-2007

3623 S 12 St	98405	7/22/2005	10/23/2006		1
4819 W 12 St	98405	7/22/2005	10/23/2006		1
1307 S 14 St	98405	7/21/2005	10/30/2006		9
1712 s 17 St	98405	7/21/2005	10/30/2006		9
1107 S 21 St	98405	7/20/2005	10/26/2006		6
2102 S 23 St	98405	7/20/2005	10/21/2006		1