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January 11, 2007

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

Attn: Alan Rathbun, Pipeline Safety Director

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

Dear Mr. Rathbun,

In a letter dated September 15, 2006, PSE responded to the WUTC findings in the 2005 Standard Inspection for Pierce County. In a meeting with WUTC Pipeline Safety Staff on November 8, 2006, PSE provided additional information on the audit response per Staff's request. At this meeting Staff requested more information on 11 items. This letter is in response to this request for follow-up information. The requests, as well as PSE's responses are provided below.

1. **Request regarding probable Violation 1 (a):**
Is this an isolated occurrence or is there more work required to ensure all mains in excess of 100 feet that require cathodic protection are scheduled to be monitored annually?

Response:
Subsequent to PSE's audit response, PSE has performed additional review to determine if similar situations exist throughout our service territory. Based on this evaluation, PSE is developing a program to review similar locations to ensure they are being monitored at the correct frequency. PSE will develop this program by June 1, 2007 and will subsequently review the program with Staff.

2. **Request regarding probable Violation 3 (c and d):**
Do regulator stations 2201 and 903 meet the installation requirements for a pressure regulating station?

Response:
PSE has reviewed these facilities and determined that DR 2201 meets the installation requirements for a pressure regulating station and DR 903 does not currently meet the installation requirements for a new pressure regulating station. DR 903 is scheduled to be modified in 2007 at which time the station will be revised and will meet all the requirements for a new pressure regulating station.

PSE is currently in the process of assessing whether there are other pressure regulating stations that were initially installed as single service farm taps and subsequently converted to a pressure regulating station that may also require modifications in order to comply with the installation requirements for a pressure regulating station. This assessment will be completed by June 1, 2007 and will subsequently be reviewed with Staff.

3. **Request regarding probable Violation 4(a):**
Provide additional information on the program to identify where idle risers exist and ensure they are monitored for atmospheric corrosion. Also, verify that the riser at space 18 in the Golden Rose Mobile Home Park was identified as an idle riser during the most recent survey.

Response:
Idle riser locations are being identified and inspected through the Isolated Facilities Program. To identify the location of existing idle risers, PSE has queried our customer information database to develop a list of addresses with inactive gas accounts. This information will then be reviewed to determine whether the service was cut and capped. Services without a record of having been cut and capped will then be field inspected to determine if there is a gas-carrying riser at this location. For those services with a riser, the riser will be inspected in accordance with the Isolated Facilities Program and an atmospheric corrosion inspection will be performed. The customer information database will then be updated to capture this as an idle riser to ensure future atmospheric corrosion surveys are performed as required. The atmospheric corrosion inspection of idle risers will be completed before the end of the Isolated Facilities Program.

The last patrol of the Golden Rose Mobile Home Park was completed on 4/27/2004. This survey recorded an "Active Riser" at space 18 which was cut and capped on 3/16/2006. The code "Active Riser" was intended to indicate there is gas at the riser but no meter. In February of 2005, PSE implemented a new set of codes to be used when completing mobile home park patrols. These new codes were developed to eliminate some of the duplicative and potentially unclear codes previously used and to ensure idle risers are more clearly identified. With these new codes, "Idle Riser" would now be used rather than "Active Riser."

The next patrol of the Golden Rose Mobile Home Park is scheduled to be performed in 2007. This patrol will use the new set of codes for documenting the patrol findings. The new codes are listed below with a definition as well as the required action.

Patrol Codes:	Definition	Required Response
Active (meter)	Riser has active meter, connected to gas fuel line	
Inactive (meter)	Riser has inactive meter, no gas usage	
Idle Riser	Riser does not have a meter	Cut and cap
C&C	Service is cut and capped at property line	
No Riser Found	Platted service, no riser on site	Further review - potential encroachment
No Gas Svc	No service line to site #	

4. **Request regarding Probable Violation 7:**
Provide additional information on PSE's plans to identify and remediate regulator relief vents that terminate horizontally.

Response:
On December 1, 2006 PSE met with Pipeline Safety Staff to discuss the proposed relief vent program that would identify and remediate both PVC vent piping and relief vents that terminate horizontally. PSE has prepared a draft program document describing the details of the vent review. A copy of this document is included in Attachment A. PSE is moving forward on implementing this program, which will be formalized once feedback is received from Staff.

5. **Request regarding Probable Violation 8(a):**
Provide additional information on the proposed leak survey documentation procedures.

Response:
PSE has been working with our leak survey contractor to revise the documentation procedures to more clearly record the method used when performing leak surveys of mains outside the reach of a mobile flame ionization unit. These procedures were implemented in January 2007 and require documentation of the person performing the leak survey, the date of the survey, and the survey type on the "Leak Survey Documentation Form". A different color is used on the leak survey map anytime the leak surveyor, date, or survey type (portable flame ionization, mobile flame ionization, or optical methane detector) changes. The color used on the leak survey map will be recorded on the "Leak Survey Documentation Form" and can be used to tie the type of survey to the segment of main. The "Leakage Survey Report" is used to document the specific instrument identification number used on any day and any survey type.

6. **Request regarding probable Violation 8(b):**
Provide additional information on the proposed procedures to be developed and implemented to address map inaccuracies that are identified during leak surveys.

Response:
In PSE's audit response, PSE indicated through the Map Accuracy Initiative, committed to in Docket PG-040210, that a process would be developed to investigate potential map inaccuracies identified by Heath and ensure maps are updated as required.

PSE has developed the preliminary process and is currently working on finalizing the details to ensure the process achieves the objective. The process outline is for Heath to notify PSE when there is a discrepancy between what is mapped and what they observe in the field. PSE would then review available records to determine if the discrepancy can be resolved based on existing records or whether a field inspection needs to be performed. If necessary, a field inspection would then be performed to resolve the discrepancy. This review and inspection would result in locating the facilities as necessary to create a new record for Maps and Records to use to update the maps.

This process will be completed in January and will be implemented by the end of the 1st quarter 2007.

7. **Request regarding probable Violation 8(c):**
Provide additional information on the process for identifying locations that require special access to perform leak surveys.

Response:
PSE currently has processes in place to ensure access arrangements are made for leak surveys of facilities with inside and rooftop meters. The process for identifying additional locations that require special access to perform leak surveys such as a rooftop service with an exterior meter set at ground level is currently being developed.

PSE has developed the preliminary process and is working on finalizing the data requirements including format, database queries, etc. to validate the process will achieve the objective. The following summarizes the process without the detailed data information.

This process begins by having the inspector performing the atmospheric corrosion inspection identify locations where they can not see the entire aboveground facility and therefore are unable to complete the entire atmospheric corrosion inspection. For these locations, the address is flagged as a hard to reach location. Data for addresses flagged as hard to reach locations are then queried to determine if the leak survey and atmospheric corrosion inspection are being performed through a different inspection program; i.e. inside or rooftop meter and service surveys. If the inspections are not already being performed through an existing inspection program, the address will be added to the next inside meter survey and additional information will be captured to ensure appropriate scheduling of leak survey equipment/access is provided.

In order to implement this process, forms are being revised, data format is being designed, database queries generated, and training conducted. This is currently in progress and is targeted to be fully implemented by December 31, 2007.

8. **Request regarding probable Violation 9:**
Provide additional information on the revised calibration processes being implemented by Pilchuck and Potelco.

Response:
Both Service Providers have implemented improvements to the calibration process for combustible gas indicators. These process improvements are described below for each Service Provider.

Pilchuck has assigned a data entry manager who is responsible for maintaining the master records of instrument accuracy checks in a database. This person is supported by personnel that are trained to perform the instrument accuracy checks (trained calibrator). The data manager is responsible to provide each trained calibrator a schedule of instruments that are due for accuracy checks. This will be done weekly by querying the instrument calibration database and sending copies identifying the instruments that are due to the trained calibrators. The results of the instrument accuracy checks will be sent back to the data entry manager who will oversee the overall record keeping making sure the records are accurate and all instruments are checked for accuracy as required.

Potelco has implemented a new process requiring all combustible gas indicators to be checked for accuracy on a monthly basis including those that are not being used. The previous process was to calibrate only those that were in use. However, as records were not kept to document when an instrument went in and out of service, this practice made it difficult to demonstrate compliance with the regulations. The new process will address this issue and provide more comprehensive records on combustible gas indicator accuracy checks.

Potelco has also assigned responsibility for the accuracy checks to their employee responsible for tools. This person will put the information on the accuracy checks in an excel spreadsheet and will ensure it is up to date and accurate.

In addition, both service providers will incorporate measures into their quality assurance programs to verify these processes are successful in addressing challenges with maintaining records that adequately demonstrate compliance with the regulations.

9. **Request regarding probable Violation 10:**
Provide additional information regarding the communication that was completed in the fall of 2006 reminding the appropriate Service Provider personnel of the requirement to document the inspection of the internal surface of the pipe anytime pipe is removed from service.

Response:
Both of PSE's service providers reviewed the requirements in PSE's Operating Standard 2600.1700 "Monitoring and Remedial Measures for Internal Corrosion" with appropriate personnel. This review included the requirements in this standard to visually inspect each segment of metallic pipe that is removed for internal corrosion and the requirement to document the results of this inspection on the Exposed Pipe Condition Report. These reviews occurred in August and September of 2006.

10. **Request regarding probable Violation 11:**
Provide additional information on the process improvements implemented to reduce the time required to remediate low PSP reads.

Response:
These process improvements are provided in Attachment B.

11. **Request regarding Area of Concern 5:**
Provide additional information on the processes being implemented to identify where additional pipeline markers are required based on the revision to WAC 480-93-124.

Response:
Ensuring the plats accurately reflect railroad locations is the first step in identifying locations where new pipeline markers are required. As part of the Isolated Facilities Program, PSE performed an assessment to determine whether railroads were consistently shown on plats. This assessment was performed in 2005 and on January 24, 2006, PSE provided Staff a report on the status of the Isolated Facilities Program. As indicated in this report, PSE concluded that railroads were not consistently shown on PSE maps.

PSE has begun the process of overlaying railroad data onto its maps. This requires obtaining additional data on the location of railroads throughout PSE's service territory and ensuring proper alignment with platted pipeline locations. Once the plats are updated with more comprehensive railroad information, a plat review will be performed to identify locations where pipelines cross railroads. This information will then be used to identify locations where casing may be installed for Isolated Facilities as well where pipeline markers are required in accordance with the new requirements in WAC 480-93-124. PSE will ensure pipeline markers are installed at these locations and information on their location recorded in a database to ensure they are maintained going forward.

PSE and Staff have a meeting scheduled for January 18, 2007 to review this information and discuss any additional questions Staff has regarding PSE's audit response. If you have any questions prior to this meeting, please call me at (425) 462-3957.

Sincerely,

Jim Hogan
Manager, Standards & Compliance

cc: Sue McLain
Duane Henderson
Kimberly Harris
Karl Karzmar

Attachments

Attachment A

Relief Vent Program

1. Scope

1.1 This document defines the requirements for the inspection of relief vents at PSE meter set assemblies (MSA) to identify relief vents that require remediation and ensure they are remediated. The inspection includes relief vents on service regulators with internal relief, relief vents on external relief valves, and relief vents of service regulators on idle risers.

2. Responsibilities

2.1 *Manager Standards and Compliance* is responsible for:

2.1.1 Ensuring that the requirements of the program are met.

2.1.2 Submitting reports, as required under Section 8.

2.2 *Manager Gas System Operations* is responsible for:

2.2.1 Ensuring field inspections of Fixed Factor, Permanent ID, Large and Small MSAs and Idle Risers are performed and documented to identify the presence of vent piping requiring remediation.

2.2.2 Ensuring vent piping requiring remediation on Large and Small MSAs and Idle Risers is completed as required by this program.

2.3 *Manager System Control and Protection* is responsible for:

2.3.1 Ensuring vent piping requiring remediation on Fixed Factor and Permanent ID MSAs is completed as required by this program.

3. Inspection Requirements

3.1 For Fixed Factor MSAs (including both those that have met the fixed factor criteria and those that have not yet met the criteria), the vent inspection shall be done in conjunction with the annual fixed factor check.

3.2 For Permanent ID MSAs, the vent inspection will be done in conjunction with the annual instrument accuracy check.

3.3 For Large MSAs, the vent inspection shall be performed as a dedicated inspection.

3.4 For Small MSAs and Idle Risers, the vent inspection shall be performed in conjunction with the atmospheric corrosion inspection.

4. Remediation

4.1 Relief vents that are constructed of PVC piping and/or relief vents that terminate horizontally shall be remediated.

4.2 Relief vents constructed of PVC piping shall be remediated by one of the following methods:

4.2.1 Replace the PVC vent piping with steel pipe;

4.2.2 Remove the PVC vent piping and do not replace it if vent piping is not required by PSE Gas Operating Standards; or

4.2.3 Remove the PVC vent piping and relocate the MSA to eliminate the need for vent piping.

4.3 Relief vents that terminate horizontally shall be remediated by one of the following methods:

4.3.1 Install a 90 degree elbow that terminates downward; or

4.3.2 Install vent piping and terminate in accordance with PSE Gas Operating Standards.

5. Training

5.1 Inspection personnel shall be trained to identify relief vents constructed of PVC piping and relief vents that terminate horizontally.

5.2 Inspection personnel shall be trained on the processes for documenting the findings to ensure locations requiring remediation are appropriately identified.

6. Records

6.1 The inspection of each Fixed Factor MSA, Permanent ID MSA, and Large MSA shall be documented.

6.1.1 The inspection records shall indicate the results of each inspection including the address, meter number, date of inspection, whether any PVC vent piping was found, and whether any vents terminate horizontally.

6.2 The inspection of each Small MSA and Idle Riser that identified a relief vent constructed of PVC piping or a relief vent that terminates horizontally shall be documented.

6.2.1 The inspection records shall include the address, meter number, date of inspection and the vent configuration that requires remediation (PVC vent piping or horizontal vent termination).

6.3 A record indicating the date remediation was performed and the remediation method shall be kept for all locations requiring remediation.

7. Schedule

7.1 The inspection of Fixed Factor and Permanent ID MSAs shall be completed by December 31, 2007 and the remediation shall be completed by March 1, 2008.

7.2 The inspection of Large MSAs of this program shall be completed by the March 1, 2008 and the remediation shall be completed by June 1, 2008.

7.3 The inspection of Small MSAs and Idle Risers shall be completed by May 1, 2010 and the remediation shall be completed by June 1, 2010.

8. Reporting Requirements

8.1 PSE shall file annual reports by March 15th of each calendar year, starting in 2008, for progress during the prior calendar year.

8.1.1 The report shall include the number of MSAs inspected, the number of PVC vents found and remediated, and the number of horizontal vents found and remediated.

9. Definitions

9.1 *Fixed Factor MSA* means a meter set assembly with a meter size larger than an A425 but less than a D16,000 that delivers pressures from 2 psig to 15 psig inclusive.

9.2 *Permanent ID MSA* means a meter set assembly with a meter size equal to or greater than a D16,000 and any meter set assembly that delivers pressures greater than 15 psig as well as some fixed factor accounts that have been assigned a permanent ID as they have not met the criteria to be a fixed factor account.

9.3 *Large MSA* means all MSAs with A1000 meters and larger that are not inspected as part of the Fixed Factor or Permanent ID inspection.

9.4 *Small MSA* means a MSA not classified as Fixed Factor, Permanent ID, or Large MSA.

9.5 *Idle Riser* means an inactive account where the meter has been removed but the riser and regulator are still present.

Attachment B
Summary of Corrosion Control Process Improvements

PSE has worked aggressively to improve the processes associated with remediating low pipe to soil potential (PSP) reads in a timely manner and we continue to evaluate opportunities to improve processes. The improvements implemented over the last few years are summarized below.

The most significant improvements involved providing additional resources to resolve low PSP reads and providing additional training and expertise to the corrosion control workforce. In late 2004, PSE began transitioning most of the work to remediate low PSP reads to its service provider. This work is the routine work and includes installing anodes and test leads, adding or removing insulators, and clearing identified shorts. By having this work performed by the service provider, PSE corrosion control personnel were able to focus on the more complex activities of testing and troubleshooting low PSP reads to identify the cause and more quickly determine a solution to low reads.

This transition was fully implemented in spring of 2005. Currently, the service provider completes approximately 90% of the work orders initiated to resolve low PSP reads and PSE completes the remainder of the work orders that require more complex resolution.

As the service provider performed more of the work to remediate low PSP reads, we identified the need for a project manager to oversee this work to ensure completion in a timely manner. In mid-2005, the service provider assigned a project manager to manage cp remediation work. This resulted in immediate improvements in the time it took to complete jobs and by early 2006, most of the backlog had been addressed and new work was being completed in a timely manner.

As the service provider took over the more routine work, PSE provided additional training including on-site NACE classes, rectifier training, and additional NACE certification for corrosion control employees. A new position titled Corrosion Technologist was created and two employees were promoted to recognize that they had attained a higher skill level and were certified at the NACE II and NACE III level. An additional corrosion engineer was also hired that had significant experience in troubleshooting low cathodic protection reads.

In addition, PSE began a process to evaluate low PSP reads that were not resolved within 90 days to determine the cause and identify additional opportunities for process improvements. As a result of this evaluation, PSE created standard drawings for anode beds which reduced the design time for replacement or supplemental anode installations; developed and implemented new tools to streamline troubleshooting low reads including a tool to calculate pipe coating effectiveness; streamlined the permitting process to reduce the lead time on permits to the extent possible; and implemented a new process for addressing low PSP reads.

The new process requires corrosion control personnel to create a notification in SAP after they are notified verbally of a low PSP read. This ensures that work to troubleshoot the low read begins in a timely manner and eliminates the previous situation where paperwork on low PSP reads would not be received until all the job paperwork had been processed.

PSE continues to evaluate low PSP reads that are not resolved within 90 – 120 days to identify additional opportunities to improve its processes. Most of the low reads that are not resolved within this timeframe are due to permitting issues, low reads that require more than one remediation activity, and resolution that involves replacement rather than repair.

PSE will continue to work aggressively to remediate low PSP reads in a timely manner and appreciates the opportunity to work with Staff to discuss these improvements as well as ongoing challenges.