BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Docket No. PG-160924
Puget Sound Energy
Greenwood Complaint

PUBLIC COUNSEL DATA REQUEST NO. 029

PUBLIC COUNSEL DATA REQUEST NO. 029:

Refer to Puget Sound Energy response to Public Counsel DR No. 14.

a. Please clarify which of the Operating Standards applied to the service line abandonment at 8409, 8411 and 8413/8415 Greenwood Ave N. in September 2004. If both standards apply, explain the difference between the two standards and when each applies.
b. Please provide any documentation that shows Pilchuck employees were trained on the cut & cap procedures prior to performing the work at the service line locations at 8409, 8411 and 8413/8415 Greenwood Ave N. in September 2004.

Response:

Puget Sound Energy ("PSE") responds as follows:

a. Please clarify which of the Operating Standards applied to the service line abandonment at 8409, 8411 and 8413/8415 Greenwood Ave N. in September 2004. If both standards apply, explain the difference between the two standards and when each applies.

   Operating Standards 2525.2100 and 2525.3600 both contain requirements that apply to the deactivation of pipelines. Operating Standard 2525.2100, Section 6, contains requirements specific to the deactivation of service lines. Operating Standard 2525.3600 contains more general requirements that apply to the deactivation of all pipelines (i.e. disconnect from all sources and supplies of gas) and refers the reader back to operating standard 2525.2100 for additional requirements for service lines that apply when performing a cut and cap.

b. Please provide any documentation that shows Pilchuck employees were trained on the cut & cap procedures prior to performing the work at the service line locations at 8409, 8411 and 8413/8415 Greenwood Ave N. in September 2004.

Please see PSE's Response to WUTC Staff Informal Data Request No. 040.

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

Docket No. PG-160924
Puget Sound Energy
Greenwood Complaint

PUBLIC COUNSEL DATA REQUEST NO. 014

PUBLIC COUNSEL DATA REQUEST NO. 014:

Please describe Puget Sound Energy's (PSE) procedure for removing or dismantling natural gas equipment and infrastructure when a service line is retired, deactivated, and removed from service. If PSE's procedures today differ from the procedures that existed in September 2004, please provide both procedures as they existed in 2004 and as they exist today.

Response:

See Attachments A and B for copies of Puget Sound Energy Gas Operating Standards 2525.2100 and 2525.3600, respectively, in effect in both 2004 and 2016, for a description of requirements for removal of exposed gas facilities.

Main Replacements 2525.2100

1. Scope

This Operating Standard establishes the requirements for replacing existing LP or IP mains with pipe that is either inserted or direct-buried, including the requirements for replacement or deactivation of the attached services. For permanent deactivation of mains and services without replacement, refer to Operating Standard 2525.3600.

1.1 Symbols

1.1.1 An **S** at the end of a numbered section means it is a state requirement.

1.1.2 An **F** at the end of a numbered section means it is a federal requirement.

2. Responsibilities

2.1 The *Manager Contractor Management* and the *Manager Gas System Integrity* shall be responsible for ensuring the requirements of this Operating Standard are met.

2.2 The *Manager Standards* shall be responsible for approving any pipe splitting as required by Section 3 of this Operating Standard.

2.3 The *Manager Gas System Integrity* shall be responsible for reviewing wrapped-steel services in proximity to steam lines.

3. General Requirements

(CFR 192.13, CFR 192.727 and WAC 480-93-115)

3.1 Existing LP and IP mains shall be replaced with PE pipe, except when the use of wrapped-steel pipe is required in accordance with Operating Standard 2525.1100.

3.1.1 If the existing system is bare steel, the new wrapped-steel pipe may be inserted. **S**

3.2 Pipe splitting of existing mains and services may be employed, with approval of the *Manager Standards*.

3.3 The *Manager System Control and Protection* shall be notified to review and approve the following in accordance with Operating Standard 2600.1300:

3.3.1 All IP and LP main replacement designs that call for the deactivation of cathodically protected steel; and,

3.3.2 All IP and LP main replacement designs that call for the retirement of a wrapped-steel service that is currently a test site.

3.4 Any time a segment of a pipeline, including a main, service line, or meter set assembly is replaced, relocated, or otherwise changed; the portion that is replaced, relocated, or otherwise changed shall be installed to current PSE standards in accordance with the requirements in Operating Standard 2575.2300. **F**

3.5 Each main and service deactivated in conjunction with a main replacement shall be:

3.5.1 Disconnected from all sources and supplies of gas; **F**

3.5.2 Purged of gas in accordance with Operating Standard 2525.3400; **F** and,

3.5.3 Sealed at the ends in accordance with Sections 5 and 6 of this Operating Standard. **F**

Continued on next page

3.6 The maximum size PE carrier pipe that can be inserted into metallic pipe is shown in Table 3-1.

Table 3-1: The relationship between the maximum size carrier pipe and casing pipe

Metallic Casing Pipe	Maximum Size PE Carrier Pipe
3/4″	5/8″
1″	5/8″
1-1/4″	1-1/8″
1-1/2″	1-1/8″
2″	1-1/4″
3″	2″
4″	3″
6″	4″
8″	6″
10″	8″

4. Active Services

(CFR 192.13)

4.1 When the main is being converted from LP to IP, a service regulator shall be installed on the meter set assembly of each active service in accordance with Operating Standard 2550.1200 or 2550.1400.

4.2 If the service line or the MSA has ***not*** been replaced, relocated, or otherwise changed as part of the main replacement project; and there is a concern regarding the condition of the service or MSA (such as depth of cover, clearance, or location), the Reporting Abnormal or Unusual Operating Conditions on Gas Facilities form (Form 3704) shall be completed in accordance with Operating Standard 2575.2700.

4.3 Active PE services shall be test and tied, except as follows:

4.3.1 PE services located under carports shall be relocated in accordance with Operating Standard 2550.1500 unless approved by the *Manager Contractor Management*; and,

4.3.2 PE services shall be replaced if there is a concern about the route or the integrity of the pipe.

4.4 When the service is test and tied, the service shall be tested in accordance with Operating Standard 2525.3300.

4.4.1 The requirements of Operating Standard 2575.2300 shall apply to the new portion of the test and tied service, including:

4.4.1.1 A curb valve shall be installed in accordance with Operating Standard 2525.2600; and,

4.4.1.2 An excess flow valve shall be installed in accordance with Operating Standard 2550.2200.

4.5 Active bare-steel services shall be inserted with PE or replaced with direct-buried PE, except steel services as required in Operating Standard 2525.1100.

4.5.1 The *Manager Contractor Management* shall ensure that a test site is created in SAP for the isolated facilities in accordance with Operating Standard 2600.1200 to ensure the cathodic protection is monitored according to Operating Standard 2600.1500.

4.6 Active wrapped-steel services shall be inserted with PE, except as noted in Sections 4.6.1 and 4.6.2.

4.6.1 If insertion is not practical (e.g., existing 1/2-inch wrapped-steel service, multiple offsets, or an area of active steam lines), and the existing service will be electrically continuous with a cathodically protected wrapped-steel main after the main replacement, the operating and maintenance history of the existing service shall be evaluated to determine if it should remain or be replaced with PE.

4.6.1.1 Except as provided in Section 4.6.2, if the wrapped-steel service will not be electrically continuous with a cathodically protected wrapped-steel main (i.e., creating an isolated facility), the service shall be replaced with PE.

4.6.2 If the wrapped-steel service is within 50 feet of an active steam line, the operation and maintenance history of the existing service shall be evaluated by the *Manager Gas System Integrity* to determine if it should remain or be replaced with new wrapped steel.

4.6.2.1 Whenever a wrapped-steel service is allowed to remain, and it is not electrically continuous with a cathodically protected steel main, it shall be cathodically protected according to Operating Standard 2600.1300.

4.6.2.2 The *Manager Contractor Management* shall ensure that a test site is created in SAP for isolated facilities in accordance with Operating Standard 2600.1200 to ensure the cathodic protection is monitored according to Operating Standard 2600.1500.

4.7 Active copper services shall be replaced with PE, except as noted in Section 4.7.1.

4.7.1 Within 50 feet of active steam lines, the copper service shall be replaced with wrapped-steel pipe. Whenever a wrapped-steel service is installed and is not electrically continuous with a cathodically protected wrapped-steel main, it shall be cathodically protected according to Operating Standard 2600.1300.

4.7.1.1 The *Manager Contractor Management* shall ensure that a test site shall be created in SAP for the isolated facilities in accordance with Operating Standard 2600.1200 to ensure cathodic protection is monitored according to Operating Standard 2600.1500.

4.8 If it is necessary to maintain service during construction, several alternatives, including CNG and temporary aboveground PE, may be used. Operating Standard 2525.1200 specifies the requirements for using temporary aboveground PE. The appropriate method for maintaining service shall be determined based on the project-specific conditions.

4.9 If an existing service has been discontinued in accordance with Operating Standard 2575.2200 (i.e., the riser valve is locked) and the service is tested and tied in order to remain "active," the riser valve shall be closed and locked after the test and tie to prevent the valve from being opened by unauthorized individuals.

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4.10 Active services that serve more customers than allowed by the definition of *service line* in Operating Standard 2400.1000 shall be remediated.

4.10.1 If testing and tying the pipeline, the portion of the pipeline that is identified as main shall be reclassified as main in accordance with Operating Standard 2525.1300.

4.10.2 If replacing the pipeline, the portion of the pipeline that is identified as main shall be installed as main in accordance with the requirements of the Operating Standards.

4.11 Existing stubs with an installation date that is less than 5 years in the past shall be reviewed on a case by case basis to determine whether they shall be tested and tied, replaced, or cut and capped.

5. Main Deactivation

(CFR 192.727)

5.1 Ends of main segments to be retained in service shall be terminated using approved methods listed in Operating Standard 2525.1100.

5.2 Install temporary caps on ends of mains to be used as casing pipe to keep debris and water out.

5.2.1 End caps may be removed after purging or prior to insertion.

5.3 The ends of deactivated mains that will not be used as a casing for the replacement main shall be sealed by an approved method that may include: F

5.3.1 Expansive foam;

5.3.2 Flat closure (pinch and weld);

5.3.3 Weld or threaded caps or plugs;

5.3.4 Blind flange; or,

5.3.5 For PE pipelines, a fusion cap.

6. Service Deactivation

(CFR 192.727)

6.1 All buildings adjacent to the main replacement should be field checked for inactive services. A D-4 card (Form 1193) shall be prepared for all “no record” services that are discovered.

6.1.1 An inactive service stub may be the result of a temporary cut and cap due to construction on the property. In this case, consideration should be given to testing and tying or replacing the stub at the time of the main replacement. The determination of whether to test and tie or replace the service shall be made based on the existing material type and in accordance with Operating Standard 2525.3650.

6.2 When the main will be replaced by insertion, the following requirements shall apply:

6.2.1 Each inactive service shall be cut and plugged or capped at the main in unpaved areas or at the curb in paved areas.

6.2.1.1 Remove section of piping exposed in excavation.

6.2.1.2 Install plug or cap on main side of service line.

6.2.1.3 Install plug or cap on building side of service line.

6.2.2 Each inactive service shall be cut and plugged or capped at the building.

6.2.2.1 For an aboveground service entry, cut and remove exposed service piping, preferably at the buried service pipe depth, and install plug or cap as required.

6.2.2.2 For services entering a building belowgrade:

6.2.2.2.1 An insert plug shall be inserted from the inside of the building towards the main. This shall be either a foam plug or a plumbers plug; and,

6.2.2.2.2 The service shall be capped at the inside wall.

6.2.3 Each active service that is deactivated due to replacement as required in Section 4, and where the *service replacement* is by direct-bury methods, shall be sealed at the ends.

6.2.3.1 At the main, install plug or cap on building side of the service line. The main side of the service line would have been broken out in accordance with Section 7.3.

6.2.3.2 At the building, the requirements of Sections 6.2.2.1 and 6.2.2.2 shall apply.

6.2.4 Each active service that is deactivated due to replacement as required in Section 4, and where the *service replacement* is by insertion, shall be sealed at the ends in accordance with the requirements of Section 8.

6.3 When the main will be replaced by direct-bury methods, the following requirements shall apply:

6.3.1 Each inactive service, and each active service that is deactivated due to replacement as required in Section 4, and where the *service replacement* is by direct-bury methods, shall be cut and plugged or capped at the building in accordance with the requirements of Sections 6.2.2.1 and 6.2.2.2.

6.3.2 Each active service that is deactivated due to replacement as required in Section 4, and where the *service replacement* is by insertion, shall be sealed at the ends in accordance with the requirements of Section 8.

6.4 Existing stubs with an installation date that is 5 years or more in the past shall be cut and plugged or capped in accordance with Section 6.2.

6.5 All inactive or idle services that are not test and tied to the new main shall have a retirement D-4 card (Form 1193) created in accordance with Operating Standard 2500.1800.

7. Insertion

(CFR 192.321)

7.1 Crosses at intersections shall be broken out prior to the insertion of the carrier pipe.

7.1.1 The ends of the existing mains perpendicular to the casing pipe shall be capped in accordance with Section 5.1 if active, or sealed in accordance with Section 5.3 if inactive or deactivated. If continuity of flow is required for the perpendicular mains, an offset shall be installed to allow for the free passage of the carrier pipe.

7.2 A push slot (normally at an active service tap) is to be opened over the main segment to be used as casing. Break out and remove an old main section in the slot long enough to accommodate the carrier pipe to be inserted.

7.3 A section of casing pipe at each active service location is to be broken out before insertion.

7.4 PE pipe being encased shall be inserted in the casing pipe in a manner that shall protect the plastic. F

7.4.1 Casing pipe shall be free of sharp or unusually rough surfaces. Casing pipe shall, when necessary, be blown out with air and the ends reamed.

7.5 Plastic insert protectors (muckets) shall be installed in accordance with Operating Standard 2525.1900.

7.6 The leading end of the pipe being inserted shall be capped before insertion. F

7.7 PE pipe may be pushed through a casing or pulled using a weak link. A weak link shall be installed in accordance with Operating Standard 2525.1200.

7.8 When it is necessary to remove the external fusion bead to allow PE to be inserted in a casing pipe, the requirements in Field Procedure 4600.1050 shall be met.

7.9 Obstructed Casing Pipe

7.9.1 After breaking out the casing pipe at the two ends and at the active services, the pipe shall be visually inspected for potential blockage. If the casing pipe is found to be plugged so as to prohibit the free passage of the carrier pipe, a power auger (RotoRooter) type machine or other suitable method may be used to clear the blockage.

7.9.2 Obstructions such as pipe deflections and external fittings protruding into the pipe that prohibit the insertion of the carrier pipe shall be removed by a suitable method or by breaking out and removing a portion of the old main.

7.10 Testing

7.10.1 When inserting individual pipe lengths the segment shall be tested after the entire segment has been inserted, in accordance with Operating Standard 2525.3300.

7.10.2 When inserting a segment consisting of multiple pipe lengths joined aboveground, the entire segment shall be leak tested both before and after insertion in accordance with Operating Standard 2525.3300.

8. Activation

8.1 Connect the new main to the pressure gas source.

8.1.1 If records indicate a discrepancy between the design drawings and field observations for the material type or location of the existing pressure gas source that the new main will tie in to, one or more of the following guidelines may be followed to resolve the discrepancy:

8.1.1.1 Review as-installed drawings to provide additional detail not found on plats or design drawings;

8.1.1.2 Excavate further to determine if the correct facility has been located;

8.1.1.3 Contact PSE Dispatch for assistance;

8.1.1.4 Take a PSP read to determine if a proposed steel tie-in pipe is cathodically protected;

8.1.1.5 Check SAP for active test site data; or,

8.1.1.6 Install a service tee and a gauge on the segment of existing main to determine if it is active.

8.2 Purge and activate in accordance with Operating Standard 2525.3400.

8.3 Connect the service tees for active services.

8.3.1 Remove active services from the jumper line and connect to the new main.

8.3.2 Soap-test all exposed fittings and tie-in connections at operating pressure.

8.3.3 If a new regulator is installed, perform a regulator test in accordance with Operating Standard 2550.2000 and Field Procedure 4550.1020.

8.4 Seal all ends and any cutouts in main and service casings in accordance with Field Procedure 4575.1050.

9. Clean-Up and Street Restoration

9.1 Deactivate and remove the jumper line and cold mix cover if used.

9.2 Backfill all excavations according to Operating Standard 2525.1800.

9.3 Deactivated valve boxes shall be filled or removed, except as approved by the *Manager Contractor Management.*

9.4 Deactivated CP boxes (for retired test stations, test sites, or wire boxes) shall be filled or removed, except as approved by *Manager System Control and Protection*.

9.5 When filling valve and CP boxes upon deactivation, concrete or CDF should be used. This helps to distinguish deactivated boxes from active boxes that may have dirt in them and ensures deactivated boxes do not get raised during future paving projects.

10. Records

10.1 Main replacements shall be documented on the as-built in accordance with the requirements set forth in Operating Standard 2500.1700.

10.2 Service replacements and service test and ties performed in conjunction with a main replacement shall be documented on the Gas Service Order – D-4 (Form 1193) in accordance with the requirements set forth in Operating Standard 2500.1800.

11. Covered Task Summaries

The following PSE Covered Task Summaries (CTS) apply to this standard:

11.1 CTS 1408 Installation of Plastic Pipe
CTS 1409 Installation of Steel Pipe
CTS 1414 Pipeline Shutdown, Startup, or Pressure Change
CTS 2014 Service Lines Not in Use and Service Discontinuance

12. References

The following PSE documents apply to this standard:

12.1 Gas Operating Standards

2400.1000 Definitions
2500.1700 As-Builts
2500.1800 D-4 Cards
2525.1100 Pipeline Design

Continued on next page

2525.1200	Design and Construction of Polyethylene Mains and Services
2525.1300	Design of IP and LP Mains
2525.1800	Backfill for Pipelines
2525.1900	Casing Requirements
2525.2600	Valve Requirements for New Installations
2525.3300	Testing Requirements
2525.3400	Purging
2525.3600	Permanent Deactivation of Pipelines
2525.3650	Temporary Service Deactivation
2550.1200	Service Regulators for Low Pressure (Inches w.c.) Delivery
2550.1400	Pressure Gas Delivery – Fixed-Factor Measurement
2550.1500	Selecting the Service Route and Sizing the Service
2550.2000	Installing Residential and Commercial/Industrial Service and Meter Set Assembly
2550.2200	Excess Flow Valves
2575.2200	Locking and Unlocking Meters
2575.2300	Replacing Services
2575.2700	Continuing Surveillance
2600.1200	Test Station Requirements
2600.1300	Designing and Installing Cathodic Protection Systems
2600.1500	Monitoring Cathodic Protection

12.2 Gas Field Procedures

4550.1020	Checking Regulator Pressure
4575.1050	Installing Casing/Conduit End Seals
4600.1050	Removing External Fusion Bead

12.3 Forms

1193	Gas Service Order – D-4
3704	Reporting Abnormal or Unusual Operating Conditions on Gas Facilities

Permanent Deactivation of Pipelines 2525.3600

1. Scope

1.1 This Operating Standard establishes the requirements for permanently deactivating pipelines and vaults.

1.2 This standard does not apply to LP or IP mains and services that are deactivated as part of a main replacement project. Refer to Operating Standard 2525.2100.

1.3 This standard does not apply to the temporary deactivation of services that will be reconnected under a Gas Altered Facility Agreement (Form 1278). Refer to Operating Standard 2525.3650.

1.4 Symbols

1.4.1 An **F** at the end of a numbered section means it is a federal requirement.

2. Responsibilities

2.1 The *Manager Contractor Management, Manager Project Management,* and *Manager Gas First Response* shall be responsible for:

2.1.1 Ensuring the requirements of this Operating Standard are met.

2.1.2 Ensuring that review and approval of designs listed in Section 7.2 is obtained.

2.2 The *Manager Community Engagement* shall be responsible for providing specific municipal requirements regarding deactivation of pipelines.

2.3 The *Manager Maps, Records and Technology* shall be responsible for updating maps and drawings.

2.4 The *Manager Compliance Programs* shall be responsible for the regulatory notifications required in accordance with Section 8 of this Operating Standard.

2.5 The *Manager Contractor Management* shall be responsible for approving service lengths in accordance with Section 5 of this Operating Standard.

3. General Requirements

(CFR 192.727)

3.1 Each pipeline abandoned in place and each inactive pipeline that is not being maintained in accordance with PSE Operating Standards, shall be:

3.1.1 Disconnected from all sources and supplies of gas; **F**

3.1.2 Purged of gas in accordance with Operating Standard 2525.3400; **F** and,

3.1.3 Sealed at the ends. **F**

3.2 Pipe temporarily out of service (such as for maintenance or uprating), is excluded from the provisions of Section 3.1.

3.3 The Customer & Community Engagement Department shall be contacted to verify municipal requirements.

4. Main and Transmission Line Deactivation

4.1 Terminate the ends of the main or transmission lines to be retained in service in accordance with Operating Standard 2525.1100.

4.2 The ends of deactivated mains or transmission lines shall be sealed with expansive foam.

4.3 Services that will be deactivated in conjunction with a main deactivation shall be cut and plugged or capped at the building in accordance with Sections 5.9 of this Operating Standard.

5. Permanent Service Deactivation

(CFR 192.727)

5.1 The requirements in this section apply when retiring a service from an active main.

5.2 Wrapped-steel services or stubs shall be cut and capped at the main.

5.2.1 Except as provided in Section 5.2.2.1, to eliminate the creation of an isolated steel facility, the service shall be cut upstream of any insulated steel compression fitting (Dresser Style) or, if the main is PE, the service shall be cut upstream of the PE to steel transition, even if the main is under hard surface.

5.2.2 The *Manager System Control and Protection* shall be contacted when:

5.2.2.1 The requirements of Section 5.2.1 cannot be met because of insufficient space between the tee and the insulator, interference from underground structures, or a hard surface replacement is cost prohibitive (i.e., cut moratoriums, concrete panel replacement, grind and overlay, etc.); or,

5.2.2.2 The existing service is a cathodic protection test site.

5.2.3 If the cut and cap results in the creation of an isolated facility, the requirements of Operation Standard 2600.2000 shall be met to ensure proper cathodic protection and monitoring.

5.3 Bare steel services or stubs shall be cut and capped at the main.

5.3.1 To eliminate bare steel facilities:

5.3.1.1 If the main is PE, the service shall be cut upstream of the PE to steel transition, even if the main is under hard surface; and,

5.3.1.2 If the main is wrapped steel, the service shall be cut upstream of any insulating fitting, if one exists, even if the main is under hard surface, and any portion of the service remaining connected to the active main shall be coated and cathodically protected in accordance with Operating Standard 2600.1000.

5.3.2 If the main is bare steel, any new steel fitting or pipe weld shall be coated in accordance with Operating Standard 2600.1100 and an anode shall be installed in accordance with Operating Standard 2600.2000.

5.4 For PE services or stubs, the service shall be cut and capped at the main, except as provided in Section 5.4.1.

5.4.1 If the main is under hard surface, the PE service may be cut and capped under the soft surface as close to the main as possible.

5.4.1.1 If a PE service can not be cut at the main and a stub remains, a tracer wire box and/or a stub marker shall be installed.

5.5 Whenever possible, the service tee shall be used to shut off the flow of gas to the service to minimize the length of service pipe extending from the tee after the cut and cap is completed.

5.5.1 Approval of the *Manager Contractor Management* is required if the length of service piping extending from the service tie-in at the main after the cut and cap exceeds 2 feet (24 inches).

5.5.2 The tap shall be returned to the up position after the cut and cap is complete.

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5.6 The section of deactivated service piping exposed during excavation at or near the main shall be removed.

5.7 The portion of the service connected to the active main shall be sealed by one of the following methods:

5.7.1 Welding a cap or plug on the open end;

5.7.2 Pinch and weld; or,

5.7.3 Complete enclosure of the service tee (i.e., a pumpkin).

5.8 The abandoned side of the service at or near the main shall be sealed with expansive foam.

5.9 Each service riser shall be cut and plugged or capped at the building.

5.9.1 For an aboveground service entry, the exposed service piping shall be removed and the service riser shall be removed by cutting it off belowgrade, preferably at the buried service pipe depth. The end of the abandoned service piping shall be capped.

5.9.2 For services entering a building belowgrade, the service pipe shall be cut as close to the face of the interior wall as possible. A foam plug or plumbers plug shall be inserted and a cap installed to ensure gas, water, insects, etc., are prevented from entering the structure.

5.9.3 As much of the existing inside service pipe should be removed as practical. If existing inside service pipe cannot be removed, visible PSE labels should be removed from the deactivated service pipe.

6. Abandoned Vaults

(CFR 192.727)

6.1 All components shall be removed from abandoned vaults.

6.2 The interior of such vaults shall be filled with material meeting the initial backfill requirements in accordance with Operating Standard 2525.1700.

7. Corrosion

7.1 For deactivated pipelines, a PSP read shall be taken on active steel mains, steel service stubs and PE tracer wire in accordance with Field Procedure 4515.1210.

7.2 Designs for the deactivation or isolation of steel pipelines shall be reviewed and approved in accordance with Operating Standard 2600.1300, to ensure that cathodic protection system continuity is maintained.

8. Commercially Navigable Waterways

(CFR 192.727)

8.1 The Company shall submit a report to the National Pipeline Mapping System (NPMS) for each abandoned onshore pipeline facility that crosses over, under, or through a commercially navigable waterway. **F**

8.1.1 Data shall be submitted in accordance with the NPMS "Standards for Pipeline and Liquefied Natural Gas Operator Submissions" at http://www.npms.phmsa.dot.gov. **F**

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8.1.2 In addition to the NPMS-required attributes, the following information shall be included:

8.1.2.1 The date of abandonment; F

8.1.2.2 Diameter; F

8.1.2.3 Method of abandonment; F

8.1.2.4 Certification that, to the best of the company's knowledge, all of the reasonable available information requested was provided; F and,

8.1.2.5 To the best of the company's knowledge, the abandonment was completed in accordance with applicable laws. F

9. Records

9.1 All deactivated mains shall be indicated on the as-built drawings in accordance with Operating Standard 2500.1700.

9.2 All deactivated services shall be noted on the Gas Service Order – D-4 card (Form 1193) in accordance with Operating Standard 2500.1800.

10. Covered Task Summaries

The following PSE Covered Task Summaries (CTS) apply to this standard:

10.1 CTS 1401 Abandonment or Inactivation of Facilities
CTS 1418 Purging

11. References

The following PSE documents apply to this standard:

11.1 Gas Operating Standards

2500.1700 As-Builts
2500.1800 D-4 Cards
2525.1100 Pipeline Design
2525.2100 Main Replacements
2525.3400 Purging
2525.3650 Temporary Service Deactivation
2600.1000 Cathodic Protection Requirements
2600.1100 Coatings for Pipe and Fittings
2600.1300 Designing and Installing Cathodic Protection Systems
2600.2000 Galvanic Anode Installation Requirements

11.2 Gas Field Procedures

4515.1210 Taking Pipe-to-Soil Potential ON Reads

11.3 Forms

1193 Gas Service Order – D-4
1278 Gas Altered Facility Agreement