

APPENDIX A

**STAFF REPORT OF PROBABLE
VIOLATIONS
(SEPTEMBER 22, 2006)**



COPY

STATE OF WASHINGTON
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
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Ref. No. Docket PG-060208

CERTIFIED MAIL

September 22, 2006

Michael S. McCoy
Executive Vice President
Northwest Natural Gas Company
220 Northwest Second Avenue
One Pacific Square
Portland, Oregon 97209

Dear Mr. McCoy:

Subject: 2006 Standard Natural Gas Inspection - Clark County District

We conducted a natural gas inspection from May 1, 2006 through May 12, 2006, of Northwest Natural Gas' Clark County District. The inspection included a records review and inspection of pipeline facilities.

Our inspection indicates 12 series of 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 is needed.

Please review the attached report and respond in writing by October 24, 2006. The response should include a letter of intent and the date you plan to bring the probable violations into full compliance. We request you address the areas of concern in the same response.

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:

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- Issue an administrative penalty under RCW 80.04.405, or
- Institute 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 Scott Rukke at (360) 664-1241. Please refer to docket number PG-060208 in any future correspondence regarding this inspection.

Sincerely,



Alan E. Rathbun
Pipeline Safety Director

Enclosure

The Washington Utilities and Transportation Commission (Commission) has the authority to enforce the minimum safety regulations per Chapter 480.93 of the Washington Administrative Code (WAC) pertaining to the construction, maintenance and operation of pipelines transporting natural gas in the state of Washington. In addition, the Commission adopts the Code of Federal Regulations (CFR) Title 49, Part 191 and 192.

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
2006 Natural Gas Pipeline Safety Inspection
Northwest Natural Gas Corporation – Clark County District
Docket PG-060208

Probable Violations

The following probable violation(s) of Title 49 CFR Part 192 and Washington Administrative Code 480-93 were noted as a result of the inspection of the Northwest Natural – Clark County District (NWN). The inspection included a random selection of records, operation and maintenance, emergency response, inventory and field inspection of the pipeline facilities.

1. **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–*
- (1) *In good mechanical condition;*
 - (2) *Adequate from the standpoint of capacity and reliability of operation for the service in which it is employed;*
 - (3) *Except as provided in paragraph (b) of this section, set to control or relieve at the correct pressure consistent with the pressure limits of §192.201(a); and*
 - (4) *Properly installed and protected from dirt, liquids, or other conditions that might prevent proper operation.*

Finding(s):

NWN did not maintain the following *Pressure Regulating Stations (PRS)* on a schedule not to exceed 15 months, but at least once each calendar year, as required. NWN defined these PRS's as Primary Service Regulators (NWN definition dated 2/22/2005 and 4/28/2006) that do not require annual maintenance.

- (a) **Regulator 4-014-029-S-01 located at E/S of NW 11th Ave. – 860' S/O NW 297th Circle.** Records indicate that this regulator was maintained on 05/07/2003 and again on 03/31/2005. In addition to not performing maintenance within the 2004 calendar year as required, the maximum 15-month timeframe was also exceeded.
- (b) **Regulator 1-015-032-S-01 located at E. 13th & "V" St. N/S of Property.** Records indicate that this regulator was maintained on 09/09/2003 and again on 08/18/2005. In addition to not performing maintenance within the 2004 calendar year as required, the maximum 15-month timeframe was also exceeded.

- (c) **Regulator 1-016-046-S-01 located at EPL NE 162nd Ave. & 520' N/O NE 1st St.** Records indicate that this regulator was maintained on 04/10/2003 and again on 05/23/2005. In addition to not performing maintenance within the 2004 calendar year as required, the maximum 15-month timeframe was also exceeded.
- (d) **Regulator 1-022-059-S-01 located at N3 "C" St & 792' W of 6th St.** Records indicate that this regulator was maintained on 07/07/2003 and again on 06/14/2005. In addition to not performing maintenance within the 2004 calendar year as required, the maximum 15-month timeframe was also exceeded.
- (e) **Regulator 1-022-059-S-02 located at S2 "C" St & 500W of 6th St.** Records indicate that this regulator was maintained on 07/07/2003 and again on 06/14/2005. In addition to not performing maintenance within the 2004 calendar year as required, the maximum 15-month timeframe was also exceeded.

2. **49 CFR §192.605(a) & (b)(1) Procedural Manual for Operations, Maintenance, and Emergencies**

- (a) *General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least one each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.*
- (b) *Maintenance and normal operations. The manual required by paragraph (a) of this section must include procedures for the following, if applicable, to provide safety during maintenance and operations.*
 - (1) *Operating, maintaining, and repairing the pipeline in accordance with each of the requirements of this subpart and Subpart M of this part.*

WAC 480-93-180(1) Plan of Operations and Maintenance Procedures; Emergency Policy; Reporting Requirements

- (1) *Each operator must have a plan and procedure manual for operation, maintenance, inspection, and emergency response activities. The manual must comply with the provisions of the "Pipeline Safety Improvement Act of 2002." The manual must include plans and procedures for all requirements of 49 CFR § 192 and chapter 480-93 WAC, and any plans or procedures used by an operator's associated contractors.*

Finding(s):

- (a) NWN procedure titled *Definitions, dated 2/22/2005 and 4/28/2006*, defines "District Regulator" as a "pressure reducing station on the pipeline that controls gas pressure from an inlet system to an outlet system and serves a district of six or more customers."

NWN procedure titled *Definitions*, dated 2/22/2005 and 4/28/2006, defines "Primary Service Regulator" as a "pressure-regulating device that establishes delivery pressure to 5 or fewer customers from a higher-pressured distribution or transmission line."

These NWN definitions are inconsistent with the definition of Main and Service under 49 CFR §192.3.

- (b) NWN procedure SPW 737, dated 1/25/2006, requires "monthly" calibration of gas detection instruments - Sensit Gold and Trak-IT III. Records indicate that the following instruments were not calibrated monthly as required:
- (1) TRAK-IT III no. 2356, no calibration record for 4/2006
 - (2) TRAK-IT III no. 2375, no calibration record for 1/2006 or 2/2006
 - (3) TRAK-IT III no. 2382, no calibration record for 4/2006
 - (4) TRAK-IT III no. 4605, no calibration record for 2/2006
 - (5) TRAK-IT III no. 4607, no calibration record for 2/2006
 - (6) TRAK-IT III no. 2271, no calibration record for 1/2006
 - (7) TRAK-IT III no. 2274, no calibration record for 1/2006
 - (8) TRAK-IT III no. 2277, no calibration record for 1/2006
 - (9) TRAK-IT III no. 2280, no calibration record for 4/2006
 - (10) TRAK-IT III no. 2297, no calibration record for 1/2006 or 2/2006
 - (11) TRAK-IT III no. 2299, no calibration record for 1/2006 or 2/2006 or 4/2006
 - (12) TRAK-IT III no. 2307, no calibration record for 4/2006
 - (13) TRAK-IT III no. 4613, no calibration record for 1/2006
 - (14) TRAK-IT III no. 4619, no calibration record for 2/2006
 - (15) TRAK-IT III no. 4623, no calibration record for 2/2006 or 3/2006
 - (16) TRAK-IT III no. 4631, no calibration record for 4/2006
 - (17) TRAK-IT III no. 4650, no calibration record for 4/2006
 - (18) TRAK-IT III no. 5946, no calibration record for 2/2006, 3/2006 or 4/2006
 - (19) TRAK-IT III no. 5947, no calibration record for 1/2006, 2/2006 or 4/2006

3. **49 CFR §192.225 Welding Procedures**

- (a) *Welding must be performed by a qualified welder in accordance with welding procedures qualified under section 5 of API 1104 (ibr, see §192.7) or section IX of the ASME Boiler and Pressure Vessel Code "Welding and Brazing Qualifications" (ibr, see §192.7) to produce welds meeting the requirements of this subpart. The quality of the test welds used to qualify welding procedures shall be determined by destructive testing in accordance with the applicable welding standard(s).*
- (b) *Each welding procedure must be recorded in detail, including the results of the qualifying tests. This record must be retained and followed whenever the procedure is used.*

WAC 480-93-080 Welder and Plastic Joiner Identification and Qualification

- (1) *All welding procedures and welders, except welders listed in (a) of this subsection, must be qualified to API Standard 1104 or section IX of the ASME Boiler and Pressure Vessel Code.*

Finding(s):

NWN weld procedure No. WP-012, dated 11/23/1983 and adopted 5/30/1986, does not have speed of travel incorporated into the procedure. NWN staff originally stated that the procedure was qualified per API 1104 standards and subsequently stated that the procedure was qualified to 49 CFR Appendix C criteria. API 1104 lists speed of travel as an essential variable when qualifying procedures. The procedure does not meet API 1104 criteria and Appendix C criteria is a welder qualification standard not a procedure qualification standard. When qualifying welders to Appendix C criteria, a welding procedure qualified to API or ASME standards must be used during testing.

4. **WAC 480-93-185 Gas Leak Investigation**

- (1) *Operators must promptly investigate any notification of a leak, explosion, or fire, which may involve gas pipelines or other gas facilities, received from any outside source such as a police or fire department, other utility, contractor, customer, or the general public. Where the investigation reveals a leak, the operator must grade the leak in accordance with WAC 480-93-186, and take appropriate action. The operator must retain the leak investigation record for the life of the pipeline.*

Finding(s):

The following leaks, caused by third party damage, were not graded as required.

- (a) W.O. Sub #03106770, located at 5302 NE 22nd Ave, Vancouver.
(b) W.O. Sub #03106932, located at 3204 NE 36th Ave, Vancouver

5. **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):

At the time of this inspection, the following service regulators had relief vents which were installed in a manner that could have potentially allowed rain and moisture accumulation inside the regulator which may affect the proper operation of the device.

- (a) Meter Number 743434, located at 1900 NE 162nd Avenue, Vancouver, WA 98684-3013.
(b) Meter Number 316080, located at 11500 NE 76th Street, Vancouver, WA.

6. **WAC 480-93-110(8) Corrosion Control**

- (8) *On all cathodically protected pipelines, the operator must take a cathodic protection test reading each time an employee or representative of the operator exposes the facility and the protective coating is removed.*

Finding(s):

At the time of this inspection, NWN was unable to provide documentation indicating that a cathodic protection test reading was taken at 1201 NE 117 Ave in Vancouver. The facility was exposed and the protective coating removed under work order # 03109286, dated 11/07/2005.

NWN procedure No. SPW 459-2, dated 6/9/2005, also requires that a CP test read be taken on steel when exposed and the protective coating is removed.

7. **WAC 480-93-187 Gas Leak Records**

Each operator 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 operator's leakage program. Gas leak records must contain, at a minimum, the following information:

- (1) *Date and time the leak was detected, investigated, reported, and repaired, and the name of the employee(s) conducting the investigation;*
- (2) *Location of the leak (sufficiently described to allow ready location by other qualified personnel);*
- (3) *Leak grade;*
- (4) *Pipeline classification (e.g., distribution, transmission, service);*
- (5) *If reported by an outside party, the name and address of the reporting party;*
- (6) *Component that leaked (e.g., pipe, tee, flange, valve);*
- (7) *Size and material that leaked (e.g., steel, plastic, cast iron);*
- (8) *Pipe condition;*
- (9) *Type of repair;*
- (10) *Leak cause;*
- (11) *Date pipe installed (if known);*
- (12) *Magnitude and location of CGI readings left; and*
- (13) *Unique identification numbers (such as serial numbers) of leak detection equipment.*

Finding(s):

NWN has 4 grade B leaks that were reviewed by commission staff. The documents provided to staff for the 4 leaks did not contain all of the information required by WAC 480-93-187.

- (a) **Leak ID number 00-0254 located at NW Elm St, and 10th Ave, Camas WA.** Missing data includes the location and magnitude of individual CGI reads left and instrument serial number.

- (b) Leak ID number 05-0425 located at 210 E 13 St, Vancouver WA. Missing data includes the location and magnitude of individual CGI reads left and instrument serial number.
- (c) Leak ID number 98-0120 located at Front and 17th St, Washougal WA. Missing data includes the location and magnitude of individual CGI reads left and instrument serial number.
- (d) Leak ID number 06-0021 located at NW 289 St and 34th WA. Missing data includes the location and magnitude of individual CGI reads left and instrument serial number.

We would also like to note that it is not acceptable to record gas in air magnitude ranges such as NWN does on their Individual Leak Inspection Report. WAC 480-93-187(12) requires that individual readings be recorded along with the location of each reading.

8. **WAC 480-93-124(2) (b)(iv) Pipeline Markers**

- (2)(b) *The following pipelines must have pipeline markers installed, notwithstanding any exceptions in 49 CFR §192.707(b):*
 - (iv) *On both sides of railroad crossings.*

Finding(s):

At the time of this inspection, pipeline markers were not installed on both sides of railroad crossings at the following locations as required:

- (a) 32nd and approximately D St in Washougal, Washington.
- (b) 24th and approximately D St in Washougal, Washington.
- (c) 20th and approximately D St in Washougal, Washington.
- (d) 6th and approximately B St in Washougal, Washington.
- (e) 3rd (Whitney) and approximately James St in Washougal, Washington.

NWN procedure No. SPW 705.3.1, dated 12/06/2005, also requires that pipeline markers be installed on both sides of railroad crossings.

9. **WAC 480-93-170(7) Tests and Reports for Pipelines**

- (7) *Operators must keep records of all pressure tests performed for the life of the pipeline and must document the following information:*
 - (a) *Operator's name;*
 - (b) *Employee's name;*
 - (c) *Test medium used;*
 - (d) *Test pressure;*
 - (e) *Test duration;*
 - (f) *Pipe size and length;*
 - (g) *Dates and times; and*
 - (h) *Test results.*

Finding(s):

NWN records indicate that the following pipelines did not have properly documented pressure tests.

- (a) W.O. #03106770 located at 5302 NE 22nd Ave., Vancouver WA, dated 10/14/2005. Missing test medium used, test pressure, test duration, pipe length, time of test and test results.
- (b) W.O. #03106932 located at 3204 NE 36th Ave., Vancouver WA, dated 10/17/2005. Missing test duration, pipe length, time of test and test results.
- (c) W.O. #03106481 located at 2302 S 17th Way, Apt. L26, Ridgefield WA, dated 10/22/2005. Used pre-tested pipe with no supporting test records including employee's name, test medium used, test pressure, test duration, pipe size and length, dates and times and test results.
- (d) W.O. #03118370 located at 313 S 34th Pl., Ridgefield WA, dated 02/17/2006. Missing test medium used, test pressure, test duration, time of test and test results.
- (e) W.O. #03109859 located at 3523 S 2nd Way, Ridgefield WA, dated 11/15/2005. Missing test medium used, test pressure, test duration, time of test and test results.
- (f) W.O. #03111672 located at 3211 S 2nd Way, Ridgefield WA, dated 12/09/2005. Missing test medium used, test pressure, test duration, time of test and test results.
- (g) W.O. #03123799 located at 665 NW Norwood St., Camas WA, dated 04/26/2006. Missing test medium used, test pressure, test duration, time of test and test results.
- (h) W.O. #03064757 located at NE Pioneer St & 32nd Place, Ridgefield WA, dated 10/20/2005. Missing test medium used, test duration, pipe size and length, dates and times and test results.

Note: According to NWN personnel, this plat installation may have involved multiple pressure tests during the course of construction. If multiple pressure tests are conducted, NWN must document each individual pressure test as required by WAC 480-93-170(9).

10. **WAC 480-93-188(4)(e) Gas Leak Surveys**

- (4) *Special leak surveys must be conducted under the following circumstances:*
 - (e) *After third-party excavation damage to services, operators must perform a gas leak survey from the point of damage to the service tie-in.*

Finding(s):

NWN was unable to provide the required leak survey documentation for the following 2 pipelines which were damaged and leaking due to third party damage:

- (a) W.O. #03106770 located at 5302 NE 22nd Ave., Vancouver WA, dated 10/14/2005.
- (b) W.O. #03106932 located at 3204 NE 36th Ave., Vancouver WA, dated 10/17/2005.

11. **WAC 480-93-178(4) Protection of Plastic Pipe**

- (4) *When installing plastic pipelines parallel to other underground utilities, operators must ensure there is a minimum of twelve inches of separation from the other utilities. Where a minimum twelve inches of separation is not possible, operators must take adequate precautions, such as inserting the plastic pipeline in conduit, to minimize any potential hazards resulting from the close proximity to the other utilities.*

Finding(s):

On August 24, 2006, we observed the following ½-inch plastic new construction residential services in open ditches which did not have 12-inches of separation from other underground utilities. The services were direct buried without protection from hazards which could result from the close proximity of other utilities.

- (a) 5911 NE 62nd St., Vancouver.
(b) 9117 NE 77 St., Vancouver.

NWN procedure No. SPW 253, dated 04/21/2006, also requires a minimum of 12-inches of horizontal separation or the use of conduits or other protection.

12. **49 CFR §192.361(a) Service Lines: Installation**

- (a) *Depth. Each buried service line must be installed with at least 12 inches (305 millimeters) of cover in private property and at least 18 inches (457 millimeters) of cover in streets and roads. However, where an underground structure prevents installation at those depths, the service line must be able to withstand any anticipated external load.*

Finding(s):

On August 24, 2006, we observed the following ½-inch plastic new construction residential services in open ditches which did not have the minimum of 12-inches of cover. The services had minimal dirt shading and were exposed in several locations.

- (a) 5911 NE 62nd St., Vancouver.
(b) 5923 NE 62nd St., Vancouver.
(c) 9117 NE 77 St., Vancouver.

Areas of Concern

1. NWN Construction Field Manual, section CFM 606-2, dated March 2006, includes an Oxy-Acetylene process for welding using the rolled weld position. NWN qualifies all Oxy-Acetylene welders according to 49 CFR §192 Appendix C requirements. Appendix C is a fixed position test only and is not applicable to a rolled weld process. NWN can not conduct rolled welding with welders who have been qualified according to Appendix C requirements.

2. WAC 480-93-170(8) requires that *“where feasible, operators must install and backfill plastic pipe prior to pressure testing to expose any potential damage that could have occurred during the installation and backfill process.”*

On August 24, 2006, we observed the following ½-inch plastic new construction residential services in open ditches that did not have the minimum of 12-inches of cover. The services had minimal dirt shading and were exposed in several locations. The services had been pressure tested prior to being backfilled.

- (a) 5911 NE 62nd St., Vancouver.
- (b) 5923 NE 62nd St., Vancouver.
- (c) 9117 NE 77 St., Vancouver.