

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION
2005 Specialized Inspection of the Natural Gas System
City of Enumclaw
Docket PG-051609

Probable Violations

[Note: Violations of CFR noted in this report are violations of Commission rules per WAC 480-93-999]

1. **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

As part of the OQ field verification, we observed components of Enumclaw’s gas system for abnormal operating conditions. At the following locations, we found that Enumclaw has regulator vents in positions which may allow water and other debris to accumulate inside the device. In addition, Enumclaw has not followed the regulator manufacturer’s installation instructions and the vents are not rain and insect resistant in accordance with 49 CFR Part 192.355. Water and debris in the regulator may prevent the regulator from operating properly in an over-pressure condition.

436 th and E 208 th Ave SE	436 th and 212 th
22025 436 th Street	20104 436 th Street
22109 436 th Street	45075 244 th Ave SE
21928 436 th Street	45203 244 th Ave SE
23128 436 th Street	

The regulator manufacturer’s installation instructions for Equimeter, Fisher, Rockwell, and Sprague regulators state that the regulator be installed so that the regulator vent faces downward or is otherwise protected to avoid the potential for water or other foreign matter entering the regulator and interfering with the proper operations of the regulator.

This is a repeat probable violation from Docket No. UG-000071.

2. **49 CFR §192.195 Protection against accidental overpressuring.**

(a) General requirements. Except as provided in §192.197, each pipeline that is connected to a gas source so that the maximum allowable operating pressure could be exceeded as the result of pressure control failure or of some other type of failure, must have pressure relieving or pressure limiting devices that meet the requirements of §192.199 and §192.201.

(b) Additional requirements for distribution systems. Each distribution system that is supplied from a source of gas that is at a higher pressure than the maximum allowable operating pressure for the system must:

(1) Have pressure regulation devices capable of meeting the pressure, load, and other service conditions that will be experienced in normal operation of the system, and that could be activated in the event of failure of some portion of the system; and

(2) Be designed so as to prevent accidental overpressuring.

Finding

As part of the OQ field verification, we examined components of Enumclaw’s gas system for abnormal operating conditions. At the following locations, we found that Enumclaw has installed fracture disk over-pressure protection devices with the vents in a position that may allow water and other debris to accumulate inside the device. Water and debris accumulation may cause the fracture disk to function improperly in the event of regulator failure. This could cause the downstream pipeline to exceed its MAOP. Enumclaw did not follow the manufacturer’s installation instructions for fracture disk over-pressure protection devices at the following locations. Consequently, Enumclaw’s fracture disk vents may not provide adequate over-pressure protection.

21928 436 th Street	Muckleshoot’s Tribal College, 392 nd and Auburn Enumclaw Hwy
212 Ave SE and 436 th Street	151 Ave SE and Auburn Enumclaw Hwy
208 th and 436 th Street	45075 244 th Ave SE
20104 436 th Street	45203 244 th Ave SE
42906 436 th Street	45317 244 th Ave SE

The fracture disk manufactures installation instructions state that vent assemblies must be pointed down if possible or otherwise protected from blockage from insects, snow, or freezing rain.

3. **49 CFR 192.605 (b)(1) Procedural manual for operations, maintenance, and emergencies**

Each operator shall include the following in its operating and maintenance plan:
(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.

Finding

Enumclaw's O&M manual contained inadequate procedures, lack of procedures, or procedures that simply parroted 49 CFR Part 192 rules. We reviewed Enumclaw's procedures and found that they were inadequate or not specific to Enumclaw's system.

An example is found in the O&M manual Section 4.08F. This section does not state what the Lower Explosive Level (LEL) is for Enumclaw's gas. 49 CFR Part 192.625 (f) requires gas to contain an odorant at a concentration in air of one-fifth of the LEL, the gas is readily detectable by a person with a normal sense of smell. Natural gas is considered to have a LEL of 4 or 5 percent concentration of gas in air. The LEL is dependent on the percentages of the various constituents in the gas. The percentage of gas in air will determine the correct instrument read. Enumclaw cannot determine the correct instrument read as required by 49 CFR Part 192.625 (f).

A second example is found in Manual Section 3.21 C. e. 3. This section states that the line operating pressure shall be reduced so that a stress level of 20% of SMYS will not be exceeded while the full encirclement split sleeve is being applied. Enumclaw operates at less than 20% SMYS; therefore, this procedure is not applicable to Enumclaw's gas system.

This is a repeat probable violation from Docket Nos. UG-000071, 990605 and PG-021283.

4. **49 CFR 192.805 (b) Qualification program.**

Each operator shall have and follow a written qualification program. The program shall include provisions to: . . .
(b) Ensure through evaluation that individuals performing covered tasks are qualified;

Finding (a)

Enumclaw's employees, except for the new employee in training, have been evaluated and qualified by Local 32 for all operator qualification covered tasks. During the inspection, we requested to perform an OQ regulator relief device test on Local 32 evaluated and qualified Enumclaw employees. Two of Enumclaw's employees demonstrated that they were qualified. Enumclaw did not allow the

third employee to be tested. The third employee's job position is titled "Worker." Enumclaw stated that regulator station duties are not part of the "Worker" position job description and that the equipment Local 32 tests on, is not similar to Enumclaw's equipment. By refusing to allow the "Worker" to be tested, Enumclaw did not recognize Local 32's evaluations and subsequent qualifications as adequate for Enumclaw's natural gas system and equipment. Enumclaw's policy accepts Local 32 evaluations and qualification as adequate, but Enumclaw's practice uses the evaluation and qualification as part of its in house - on the job training. Enumclaw's OQ plan does not adequately address employee evaluations and qualifications.

Finding (b)

As described in probable violations one and two, Enumclaw employees did not recognize that having regulator and fracture disk vents in sideways positions is an abnormal operating condition. 49 CFR Part 192.803 defines "qualified" to include performing the assigned covered tasks and recognizing and reacting to abnormal operating conditions.

Areas of Concern

- 1) On October 25, 2004, the WUTC sent an advisory bulletin to all regulated gas pipeline companies in the State of Washington, including Enumclaw. The advisory bulletin recommended several actions be taken. We expect that when an advisory bulletin is issued that operators implement the recommended actions. However, as of the date of the inspection, January 11-13, 2006, Enumclaw had not yet made the recommended changes to its plans and procedures and had not taken the safety precaution of marking the positive and negative leads inside each rectifier.

- 2) The Public Works Operations Manager is responsible for the Water, Sewer, Street, Garbage and Gas departments; this includes managing the daily operations of all these departments. For the Gas Department, there does not appear to be adequate time to review and remain current with 49 CFR Part 192, WACs, Washington state and OPS Advisory Bulletins, or adequate time to update and/or write Enumclaw natural gas specific procedures for the O&M manual. One example of this is the O&M procedures. After two years of working with natural gas operators, on June 5, 2005, the updated WAC 480-93 became effective. WAC 480-93-180 requires "The manual must include plans and procedures for all requirements of 49 CFR Part 192 and chapter 480-93 WAC, and any plans or procedures used by an operator's associated contractors." The City of Enumclaw was unaware of WAC 480-93 rules and the 2004 Washington State Advisory Bulletin.

During the field portion of this specialized inspection, we noted that personnel appear to be qualified and knowledgeable. However, without adequate written procedures, Enumclaw could not demonstrate compliance. We also noted that full time Enumclaw natural gas employees are often required to assist with other city utilities.