

EXHIBIT NO. __ (HVS-2)
DOCKET NO. PG-041624
WITNESS: HARRY V. SHAPIRO

**BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,**

Complainant,

v.

PUGET SOUND ENERGY, INC.,

Respondent.

Docket No. PG-041624

**FIRST EXHIBIT TO THE
PREFILED DIRECT TESTIMONY OF
HARRY V. SHAPIRO (NONCONFIDENTIAL)
ON BEHALF OF PUGET SOUND ENERGY, INC.**

AUGUST 15, 2005

2005 WASHINGTON ADMINISTRATIVE CODE



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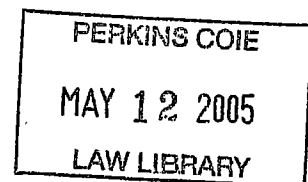
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Published under authority of chapters 1.08 and 34.05 RCW

Containing all permanent rules adopted
under chapter 34.05 RCW, as of
January 1, 2005



(2) When a gas company proposes to raise any pipeline's pressure above two hundred fifty psig, the gas company shall petition the commission for a waiver of WAC 480-93-030, if applicable, before increasing the pressure;

(3) When a gas company proposes to raise any pipeline's pressure above five hundred psig, the gas company shall petition the commission for a waiver of WAC 480-93-020, if applicable, before increasing the pressure;

(4) When a pipeline or system operating at low pressure drops below the safe operating conditions of attached appliances and gas equipment; and

(5) When a pipeline, operating in excess of two hundred fifty psig, is taken out of service for any reason the commission shall be notified within six hours, followed by written explanation within thirty days.

[Statutory Authority: RCW 80.01.040, 92-16-100 (Order R-375, Docket No. UG-911261), § 480-93-183, filed 8/5/92, effective 9/5/92.]

WAC 480-93-184 Gas leak responsibility. Each gas company shall designate personnel who shall be responsible for pipeline and service line patrolling; leak survey practices, procedures, and operations; and leak classification and repairs within its respective areas of operation (i.e. division, district, etc.).

[Order R-101, § 480-93-184, filed 5/18/77.]

WAC 480-93-185 Gas leak investigation. Any notification of a leak, explosion, or fire, which may involve gas pipelines or other gas facilities, received from an outside source such as a police or fire department, other utility, contractor, customer, or the general public, shall be investigated promptly by the gas company. Where the investigation reveals a leak, the leak shall be graded pursuant to WAC 480-93-186 and appropriate action shall be taken in accordance with these rules.

When leak indications are found to originate from a foreign source or facility, such as gasoline vapors, sewer or marsh gas, or customer-owned piping, prompt action shall be taken at that time, where appropriate, to protect life and property. Leaks that represent an ongoing, potentially hazardous situation shall be reported promptly to the owner or operator of the source facility and, where appropriate, to the police department, or other appropriate governmental agency. In all cases, the property owner or the adult person occupying the premises shall be notified of the leak conditions. If no methane indication is found, the gas company employee on-site shall so inform the property owner or the adult person occupying the premises, and shall request the adult person occupying the premises sign the gas company work order indicating that a gas leak was not the source of the leak indication. The gas company employee shall provide the adult person occupying the premises an odor sniff card which identifies the odor of natural gas and indicates the name, address, and telephone number of the gas company representative to be contacted if the leak indications are again noticed. If the property owner or an adult person occupying the premises is not available, the gas company shall, within twenty-four hours of the leak notification, send by first-class mail addressed to the person occupying the premises, a letter explaining the results of the investigation. A copy of the letter

[Title 480 WAC—p. 248]

shall be retained by the gas company and kept with the leak report. A leak investigation report form shall be maintained in the gas company's leak report files for all leaks investigated, indicating gas company employee making the initial leak evaluation.

[Statutory Authority: RCW 80.01.040, 92-16-100 (Order R-375, Docket No. UG-911261), § 480-93-185, filed 8/5/92, effective 9/5/92; Order R-102, § 480-93-185, filed 5/18/77.]

WAC 480-93-186 Leakage classification and action criteria. (1) Gas leak classification and repair.

(a) General. Each gas company shall establish a procedure by which leakage indications of flammable gas will be graded and controlled. When evaluating any leak indication a preliminary step is to determine the perimeter of the leak area. When this perimeter extends to a building wall the investigation shall extend inside the building.

(b) Leak grades. Based on an evaluation of the location and/or magnitude of a leak, one of the following leak grades shall be assigned, thereby establishing the leak repair priority. A gas company may utilize an alphabetical grade classification, i.e. Grade A for Grade 1, Grade B for Grade 2, and Grade C for Grade 3 if it has historically utilized such a grading designation.

Grade 1 - Grade 1 means a leak that represents an existing or probable hazard to persons or property and requiring immediate repair or continuous action until conditions are no longer hazardous.

Grade 2 - Grade 2 means a leak recognized as being nonhazardous at the time of detection but requiring scheduled repair based on probable future hazard.

Grade 3 - Grade 3 means a leak that is nonhazardous at the time of detection and can reasonably be expected to remain nonhazardous.

Leakage classification and control requirements are provided in Table 1. The examples of leakage provided in the table are guidelines and are not exclusive. The judgment of the gas company personnel at the scene is of primary importance in determining the grade assigned to a leak.

(c) Follow-up inspections. The adequacy of leak repairs shall be checked by acceptable methods while the excavation is open. The perimeter of the leak area shall be checked with a CGI. In the case of repair of a Grade 1 leak, where there is residual gas in the ground, a follow-up inspection shall be made as soon as practical but in no case later than one month following the repair. In the case of Grade 2 or Grade 3 leaks which have been repaired, the need for a follow-up inspection shall be determined by qualified personnel employed or retained by the gas company.

(2) Regrading of leaks. Leaks are to be reinspected using the same criteria used to grade leaks when they are first detected and graded.

[Order R-103, § 480-93-186, filed 5/18/77.]

WAC 480-93-18601 Table 1—Leak classification and action criteria—Grade—Definition—Priority of leak repair—Examples.

(2005 Ed.)

TABLE 1—LEAK CLASSIFICATION AND ACTION CRITERIA

GRADE 1 DEFINITION

A leak that represents an existing or probable hazard to persons or property and requires immediate repair or continuous action until the conditions are no longer hazardous.

PRIORITY OF LEAK REPAIR	EXAMPLES
Requires prompt action* to protect life and property and continuous action until the conditions are no longer hazardous.	Leaks requiring prompt action:
*The prompt action in some instances may require one or more of the following:	
a. Implementation of company emergency plan (192.615).	1. Any leak which, in the judgment of operating personnel at the scene, is regarded as an immediate hazard.
b. Evacuating premises.	2. Escaping gas that has ignited unintentionally.
c. Blocking off an area.	3. Any indication of gas which has migrated into or under a building or tunnel.
d. Rerouting traffic.	4. Any reading at the outside wall of a building or where the gas would likely migrate to the outside wall of a building.
e. Eliminating sources of ignition.	5. Any reading of 80% LEL or greater in a confined space.
f. Venting the area, or	6. Any reading of 80% LEL, or greater in small substructures not associated with gas likely migrate to the outside wall of a building.
g. Stopping the flow of gas by closing valves or other means.	7. Any leak that can be seen, heard, or felt and which is in a location that may endanger the general public or property.
h. Notifying police and fire departments.	

GRADE 2 DEFINITION

A leak that is recognized as being nonhazardous at the time of detection but justifies scheduled repair based on probable future hazard.

PRIORITY OF LEAK REPAIRS	EXAMPLES
Leaks should be repaired or cleared in one year but shall not exceed fifteen months from the date reported. If a Grade 2 leak occurs in a segment of pipeline which is under consideration for replacement, an additional 6 months may be added to the 15 months maximum time for repair noted above. In determining the repair priority, criteria such as the following should be considered:	A. Leaks requiring action ahead of ground freezing or other adverse changes in venting conditions:
a. Amount and migration of gas,	1. Any leak, which under frozen or other adverse soil conditions, would likely migrate to the outside of a building.
b. Proximity of gas to buildings and subsurface structures,	B. Leaks requiring action within six months:
c. Extent of pavement, and	1. Any reading of 40% LEL or greater under a sidewalk in a wall-to-wall paved area that does not qualify as a Grade 1 leak and where gas is likely to migrate to the outside wall of a building.

PRIORITY OF LEAK REPAIRS

d. Soil type and conditions, such as frost cap, moisture and natural venting.

Grade 2 leaks shall be re-evaluated at least once every six months until cleared. The frequency of reevaluation should be determined by the location and magnitude of the leakage condition.

It should be recognized that Grade 2 leaks will vary greatly in degree of potential hazard. There will be some Grade 2 leaks, which when evaluated by the above criteria, will justify scheduled repair within the next 5 working days. Others will justify repair within 30 days. These situations shall be brought to the attention of the individual responsible for scheduling leakage repair at the end of the working day.

On the other hand, there will be many Grade 2 leaks, which because of their location and magnitude, can be scheduled for repair on a normal routine basis with periodic reinspection as necessary.

EXAMPLES

- Any reading of 100% LEL or greater under a street in a wall-to-wall paved area that does not qualify as a Grade 1 leak and where the gas is likely to migrate to the outside wall of a building.
- Any reading less than 80% LEL in small substructures not associated with gas facilities where gas would likely migrate creating a probable future hazard.
- Any reading between 20% LEL and 80% LEL in a confined space.
- Any reading on a pipeline operating at 30% SMYS or greater in Class 3 or 4 locations that does not qualify as a Grade 1 leak.
- Any leak which in the judgment of operating personnel at the scene is of sufficient magnitude to justify scheduled repair.

GRADE 3 DEFINITION

A leak that is nonhazardous at the time of detection and can reasonably be expected to remain nonhazardous.

PRIORITY OF LEAK REPAIRS

Grade 3 leaks should be re-evaluated during the next scheduled survey, or within 15 months of the reporting date, whichever occurs first, until the leak is regraded or no longer results in a reading.

EXAMPLES

- Leaks requiring reevaluation at periodic intervals:
- Any reading of less than 80% LEL in small gas associated substructures such as small meter boxes or gas valve boxes.
 - Any reading under a street in areas without wall-to-wall paving where it is unlikely the gas could migrate to the outside wall of a building.
 - Any reading of less than 20% LEL in a confined space.

[Statutory Authority: RCW 80.01.040. 92-16-100 (Order R-375, Docket No. UG-911261), § 480-93-18601, filed 8/5/92, effective 9/5/92; Order R-103, Table 1 (codified as WAC 480-93-18601), filed 5/18/77.]

WAC 480-93-187 Records and self audit. (1) Gas leak records. Every gas company shall prepare and maintain permanent gas leak repair records. Sufficient data and information shall be included in leak repair records to permit the commission to assess the adequacy of the company maintenance programs and to provide the data and information needed to complete every required RSPA F-7100.1, F-7100.1-1, F-7100.2, and F-7100.2-1 leak report.

(2) The following data and information shall be recorded and maintained. Every gas company which by law must report leaks to a regulatory agency charged by law with environmental protection shall file copies of those reports with the commission. Data and information which cannot reasonably be expected to be available under the particular circumstances of a leak situation need not be reported, but at a minimum will include the following:

[Title 480 WAC—p. 249]