Proposed Rule:

WAC 480-93-015 Odorization of gas

- (1) All gas that is transported by pipeline and all gas consumed by an end use customer must be odorized in accordance with CFR 49, Part 192 section 625 excluding sections paragraphs (b)(1) and (b)(3).
- (2) Operator's must use odorant testing instrumentation when conducting odorant level checks (sniff tests). Sniff tests must be performed at least monthly.

<u>Comment: Cascade Natural Gas would like to know why sniff tests must be performed at least monthly.</u>

- (3) Instruments used to detect odorant concentration must be calibrated in accordance with the manufactures recommendation. When there is no manufacturers recommendation calibration must be done at least once each calendar year.
- (4) All records of odorant usage, sniff tests performed, and equipment calibration must be kept for five years.

<u>Comment: Cascade Natural Gas would like to know why five years of record storage is deemed</u> necessary.

Proposed Rule:

WAC 480-93-018 Maps, drawings, and records of gas facilities

(1) Each gas company must prepare, maintain, and make available to the commission or its designated representatives all maps, drawings, and records of the company's gas facilities. The maps, drawings, and records must show the size and type of material of all facilities, corrosion control, and the maximum allowable operating pressure. The maps and drawings must indicate the location of all district regulator and gate stations and location of all valves, identifying the emergency valves specified in the company's emergency plan. The gas company must provide key sheets for ready reference as needed.

Comment: In order to support the industry's heightened security efforts subsequent to September 11, 2001, NW Natural strongly suggests that all documents pertaining to the exact location of pipeline facilities must not be provided to the public or any public agency. These documents are, however, available for review by Staff.

- (2) Each gas company must make books, records, reports, and other information available to the commission, so the commission or its authorized representatives can determine whether the gas company is in compliance with state and federal regulations.
- (3) All construction records, revision to maps and operating history made available to appropriate operations personnel must be updated every six 6 months.

Comment: NW Natural, Cascade Natural Gas and Avista Utilities suggest deleting this requirement or limiting it to transmission lines and mains. Updating all the documentation for the thousands of services added within the 6-month time frame would be excessively burdensome, particularly if there have been no changes to the records.

Proposed Rule:

WAC 480-93-080 Welder <u>and Joiner</u> identification and qualification certificates Note: identify which edition of criteria

(1) All welding procedures and welders must be qualified to API Standard 1104 or section IX of the ASME Boiler and Pressure Vessel Code. Each welder qualification test result must be recorded and kept for a period of 5 years

Comments: Avista Utilities suggests that Appendix C of part 192 be included in this proposed rule since it is an acceptable procedure under federal pipeline safety code. Cascade Natural Gas requests that Staff elaborate why the 49 CFR 192 Appendix C requirements are not acceptable for pipelines operating with a hoop stress under 20% SMYS.

(a) Operators must use testing equipment necessary to measure the essential variables during welder qualification or requalification, and also for procedure qualification or requalification. All essential variables must be recorded as performed during the welding qualification.

Cascade Natural Gas requests that Staff defines "essential variables."

- (b) Qualified welding procedures must be on site where welding is being performed.
- (2) Each operator must have qualified written procedures for the joining of gas pipelines by means other than welding.
- (a) Qualified joining procedures must be on site where joining is being performed.

Comment: Please define joining procedures. Are they limited to fusing or do they include mechanical joining techniques?

- (b) Personnel qualified to join gas pipeline facilities must be requalified each calendar year not to exceed 15 months.
- (c) Each joiner qualification test result must be recorded and kept for a period of 5 years.
- (3) Welders and joiners must carry appropriate identification and qualification cards showing the name of welder or joiner, their qualifications, date of qualification expiration, and the company whose procedures were followed for the qualification. Welders and joiners qualification cards will be subject to commission inspection at all times when qualified personnel are working on facilities subject to Commission jurisdiction.

Proposed Rule:

WAC 480-93-082 Qualification of employees

Staff recommends deleting this rule

Proposed Rule:

WAC 480-93-120 Exposed pipelines Aboveground facilities

(1) All exposed pipelines and associated equipment must have pipeline markers and other protective measures_taken at any point where gas pipelines and any associated equipment are exposed.

<u>Comment:</u> The term "protective measures" is unclear. The issue of marking pipelines is included in WAC 480-93-124. Suggest deleting this rule.

Proposed Rule:

WAC 480-93-124 Pipeline markers for mains and transmission lines

Comment: Line markers for mains and transmission lines is the title of 49 CFR part 192 section 707. This is referenced in paragraph (1) of the proposed rule.

(1) PipelineLine markers must be placed at all railroad, road, irrigation, and drainage ditch crossings, and at all fence lines where a pipelineline crosses private property. PipelineLine markers must be placed approximately five hundred500 yards apart, if practical, and at points of deflection of the pipeline where the angle of the line changes direction. Exceptions to this rule must conform to 49 CFR, Part 192.707(b).

Comment: The term "deflection" infers unsatisfactory loading of the pipe to cause direction away from its normal course. Application of this rule to all fence lines would be disruptive, impractical and expensive.

(2) All gas pipelines attached to bridges or otherwise spanning an area must have pipeline markers at both ends of the suspended pipeline. Each gas company must annually inspect and maintain the markers to ensure they are visible and legible. Markers that are reported damaged and missing must be replaced within 30 days.

Comments: NW Natural and Avista Utilities suggest revising the timeframe for replacing line markers to 45 days. Consistency throughout the proposed rules would be beneficial. Cascade Natural Gas requests Staff to comment on why a prescribed replacement schedule is deemed necessary. Avista Utilities and Cascade Natural Gas would like to know what the basis is for proposing a separate annual marker survey program.

(3) Pipeline marker survey must be conducted every three years and the recorded results must be kept for a minimum of 6 years.

Comment: CFR part 192 section 709(c) requires that similar records be kept for a minimum of 5 years. Six years could cause a duplication of efforts by staff inspecting records in two cycles. Suggest keeping records for 5 years for consistency and inspection efficiency.

Proposed Rule:

WAC 480-93-155 Increasing maximum operating pressure

Each gas company must submit to the commission for approval, complete written plans and drawings at least 45 days before uprating to a maximum allowable operating pressure (MAOP) greater than sixty pounds per square inch gauge 60 psig. The plan must include a review of the following:

- (1) All affected gas facilities, including pipe, fittings, valves, and other affected equipment, with their manufactured design operating pressure and specifications;
- (2) Original design and construction standards;
- (3) All previous operating pressures and length of time at that pressure;
- (4) All leaks, regardless of cause, and the date and method of repair;
- (5) All upstream and downstream regulators and relief valves;
- (6) All cathodic protection readings on mains for the past three years or three most recent inspections, whichever is longer, and the most recent inspection on each attached service line, which is electrically isolated; and
- (7) Additional Rrecords deemed necessary to evaluate the pressure increase.
- (8) Uprates must be based on a previous strength test that would substantiate the must proposed MAOP. When there is no documented history of strength tests, one must be conducted in conjunction with the uprate.

Comment: Uprates are generally performed while pipelines are in operation and it is not feasible or desirable to take them out of service to test. Pressure testing a pipeline with natural gas to 1½ times the new MAOP may not be in the best interest of public safety. Suggest deleting statement (8).

Proposed Rule:

WAC 480-93-180 Plan of operations and maintenance procedures; emergency policy; reporting requirements

Each gas company must have written operation, maintenance, emergency, and **inspection plans** and procedures in compliance with the provisions and general intent of the federal "Natural Gas Pipeline Safety Act." Such plans and procedures, and amendments, must be practicable and designed to enhance safety and must be filed with the commission for review. The commission may, after notice and opportunity for hearing, require such plans and procedures be revised in accordance with Title 49, Part 192 and 480-93 WAC.

Comment: Inspection is included in 49 CFR Part 192, subparts I, L and M. Suggest deleting this term or defining where the term exceeds Part 192 requirements.

Proposed Rule:

WAC 480-93-190 Being aware of construction work near gas company facilities

Staff recommends deleting this rule

- (1) Each gas company must subscribe to the available "one call locating service" in every area their facilities are located.
- (2) Each gas company must establish procedures for notification of all construction work in close proximity to gathering lines, mains, service lines, transmission lines, and other gas facilities.

LEAKS

Staff recommends deleting this rule

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.).

Proposed Rule:

WAC 480-93-185 Gas leak Failure investigation

(1) Each gas company 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. In the event of an explosion, fire, death, or injury, the gas company may remove any suspected gas facility only when the commission and the lead investigative authority have designated the release of the gas facility. Once the situation is made safe, the facility must remain intact until directed by the lead investigative authority. Where the investigation reveals a leak, the leak must graded in accordance with to WAC 480-93-186 and appropriate action must be taken in accordance with these rules. Grade 1 or Grade 2 leaks may not be downgraded to a Grade 3 leak without a physical repair having been made to the pipeline facility.

<u>Comments: The above statement designating authority to the WUTC is contradictory to federal regulation.</u> 49 CFR part 192 section 617 states:

"Each operator shall establish procedures for analyzing accidents and failures, including the selection of samples of the failed facility or equipment for laboratory examination, where appropriate, for the purpose of determining the causes of the failure and minimizing the possibility of recurrence."

This definition of jurisdiction may prevent the operator from complying with the requirements of §192.617.

There is also a legal concern regarding preservation of evidence at the site until the Commission authorizes the release of the gas facility for failure analysis.

The leak grading requirements belong in §480-93-186. Suggest this language be struck out. Under some circumstances, improved or additional information will legitimately support changing a grade 1 or 2 leak to a grade 3 leak without a physical repair having been made to the pipeline facility.

(2) 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 must be taken, to protect life and property. All Leaks that represent an ongoing, potentially hazardous situation must 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 must be notified of the leak conditions.

If no methane (or propane) indication is found, the gas company employee on-site must inform the property owner or the adult person occupying the premises, and must request the adult person occupying the premises to sign the gas company work order. The gas company employee must provide the adult person occupying the premises an odor sniff card that identifies the odor of gas (or propane) and indicates the name, address, and telephone number of the gas company representative to be contacted if the leak indications are again noticed.

Comments: NW Natural and Avista Utilities suggest deleting the odor sniff card requirement.

Problems have occurred with the customer disposing of the card and creating false odor calls based on these cards. We also suggest deleting the requirement of having the adult person occupying the premises to sign the gas company work order based on legal counsel's suggestion given that the customer is not usually aware of what they are signing and why.

If the property owner or an adult person occupying the premises is not available, the gas company must, within twenty four 24 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 must be retained by the gas company and kept with the leak report. A leak investigation report form must be maintained in the gas company's leak report files for all leaks investigated, indicating gas company employee making the initial leak evaluation.

Proposed Rule:

WAC 480-93-186 Leakage classification and action criteria

(1) 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. The same criteria for initial leak grading must be applied to re-inspected leaks.

- (2) Gas leak classification and repair. Each gas company must establish a procedure for evaluating the concentration and extent of gas leakage. When evaluating any leak, the perimeter of the leak area must be determined and documented. If the perimeter of the leak extends to a building wall, the investigation must extend inside the building.
- (3) Leak grades.
- (a) 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.
- (b) 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.
- (c) Grade 3 Grade 3 means a leak that is non-hazardous at the time of detection and can reasonably be expected to remain non-hazardous.
 - Leakage classification and control requirements are provided in Table 1. The examples of leakage provided in the table are guidelines and are not exclusive.
- (4) Follow-up inspections. The perimeter of the leak area must be checked with a Combustible Gas Indicator. Grade 1 leaks with residual gas in the ground must be re-inspected as soon as practical and no 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 must be determined by a qualified personnel employed or retained by the gas company.

Proposed Rule:

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

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

Comment: Placing this table in table format will keep the margins aligned correctly.

EXAMPLES

Comment: Examples become prescriptive when performance language is used, such as 80% LEL or six months. Suggest removing specific values from the examples in this column.

Requires prompt action* to protect life and property and continuous action until the conditions are no longer hazardous. *The prompt action in some instances may require one or more of the following:

- a. Implementation of company emergency plan (192.615).
- b. Evacuating premises.
- c. Blocking off an area.
- d. Rerouting traffic.
- e. Eliminating sources of ignition
- f. Venting the area, or
- g. Stopping the flow of gas by closing valves or other means.
- h. Notifying police and fire department

Leaks requiring prompt action:

- 1. Any leak which, in the judgment of operating personnel at the scene, is regarded as an immediate hazard.
- 2. Escaping gas that has ignited unintentionally
- 3. Any indication of gas, which has migrated into or under a building or tunnel.
- Any reading at the outside wall of a building or where the gas-would likely could potentially migrate to the outside wall of a building.
- 5. Any <u>high</u> reading of 80% LEL or greater_in a confined space.
- Any reading of 80% LEL, or greater in small substructures not associated with gas facilities where the gas would likely could potentially migrate to the outside wall of a building.
- 7. Any leak that can be seen, heard, or felt and which is in a location that may endanger the general public or property.

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 REPAIR

EXAMPLES

Comments: Placing this table in table format will keep the margins aligned correctly. Examples become prescriptive when performance language is used, such as 80% LEL or six months. Suggest removing specific values from the examples in this column.

Leaks should be repaired or cleared in one—1 year but shall not exceed fifteen—15 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:

- 1. Any leak, which under frozen or other adverse soil conditions, would likely could potentially migrate to the outside of a building.
- B. Leaks requiring action within six months:

Comment: The example indicates a shorter response time (6 months) than the proposed code requirement in column 1 (1 year).

- a. Amount and migration of gas,
- b. Proximity of gas to buildings and subsurface structures,
- c. Extent of pavement, and
- d. Soil type and conditions, such as frost cap, moisture and natural venting.

Grade 2 leaks shall be reevaluated 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.

- 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 could potentially to migrate to the outside wall of a building.
- 2. Any high 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 could potentially to migrate to the outside wall of a building.
- 3. Any high-reading-less-than-80%
 LEL-in-small-substructures
 https://example.com/high-reading-less-than-80%
 LEL-in-small-substructures
 https://example.com/high-reading-less-than-80%
 <a href="https://example.com/high-reading-less-
- 4. Any reading between 20% LEL and 80% LEL in a confined space that causes concern.
- 5. 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.

Comment: The above statement is unnecessary.

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.

6. 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 REPAIR

EXAMPLES

Comments: Placing this table in table format will keep the margins aligned correctly. Examples become prescriptive when performance language is used, such as 80% LEL or six months.

Suggest removing specific values from the examples in this column.

Grade 3 leaks should be reevaluated 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. Leaks requiring reevaluation at periodic intervals:

- 1. Any reading of less than 80% LEL in small gas associated substructures such as small meter boxes or gas valve boxes.
- 2. 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.
- 3. Any <u>low</u> 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.]

Proposed Rule:

WAC 480-93-187 Gas Leak records and self audit

- (1) <u>Gas leak records.</u> Each gas company must prepare and maintain permanent gas leak repair records. The leak repair records must contain sufficient data and information to permit the commission to assess the adequacy of the company maintenance programs and to provide the data and information required by RSPA F-7100.1, F-7100.1-1, F-7100.2, and F-7100.2-1 leak report.
- (2) <u>Gas Leak Reports.</u> Data and information which cannot reasonably be expected to be available under the particular circumstances of a leak situation need not be reported immediately, but at a minimum must include the following:

- (a) Date and time detected, investigated, and reported and the name of employees conducting the detection, investigation **and report**;
- (b) Date and time the leak was reevaluated before repair, and the name of the employee involved;
- (c) Date and time of repair, when a Grade 1 leak is involved, and the name of the employee in charge of the repair;
- (d) Date and time the leak was rechecked after repair and the employee involved;
- (e) Location of leak (sufficiently described to allow ready location by other qualified personnel);
- (f) Leak grade;
- (g) Pipeline classification (distribution, transmission, etc.);
- (h) Method of leak detection (if reported by outside party, list name and address);
- (i) Part of system where leak(s) occurred (main, service, etc.);
- (j) Location on the system where leaked (pipe, valve, fitting, compressor or regulator station, etc.);
- (k) Material which leaked (steel, plastic, cast iron, etc.);
- (I) Origin of leak;
- (m) Pipe description;
- (n) Type repair;
- (o) Leak cause;
- (p) Date pipe installed (if known);
- (q) Corrosion control method;
- (r) Magnitude of Combustible Gas Indicator readings and relative location to leak; and
- (s) Unique identification numbers (such as serial numbers) of leak detection equipment.
- (3) Self audits. Each gas company must ensure:
 - (a) All repairs are made within the time required;
 - (b) All leak repairs are effective; and
 - (c) Records are accurate.

Proposed Rule:

WAC 480-93-188 Gas leak surveys

- (1) <u>Types of gas leak surveys and test methods.</u>
 Each gas company must have a leak <u>control detection</u> program. A gas leak survey must be conducted using a gas detection instrument covering:
 - (a) all mains and services, including the testing of the atmosphere near utility (gas, electric, telephone, sewer, water) and other underground structures;
 - (b) cracks in paving, and in wall-to-wall paved areas, the cracks in sidewalks;
 - (c) building walls; and
 - (d) other areas where gas can migrate.
- (2) <u>Maintenance and calibration of instruments</u>. All instruments used in leak detection and evaluation shall must be maintained, calibrated, and operated in accordance with the recommended latest manufacturers' specifications and methods. If there is no manufacture's recommendation, calibration must be done once each calendar year.

- (3) <u>Frequency of surveys in designated areas.</u> Gas leakage surveys must be conducted according to the following specified frequencies:
 - (a) Business areas once each calendar year, not exceeding fifteen months;
 - (b) Residential areas as frequently as necessary, not exceeding five years;
 - (c) Buildings of public assembly once each calendar year, not exceeding fifteen months;
 - (d) Special surveys such as floods, earthquake, land movement- as required; and
 - (e) Where the gas system has cast iron, wrought iron, or ductile iron, or noncathodically protected bare steel, galvanized steel, or coated steel pipe twice each calendar year not exceeding eight months.
- (4) <u>Business areas and buildings of public assembly</u>. Gas leakage surveys of business areas and public buildings must be conducted on the following basis:
 - (a) Where gas service lines exist, a survey must be conducted at the building wall at the point of entrance, using a bar hole where necessary;
 - (b) Surveys must be conducted within all buildings where gas leakage has been detected at the outside wall at all points and where escaping gas potentially migrate into and accumulate inside the building; and
 - (c) Service piping, riser piping and meter(s) must be checked with gas detection instrument or with a soap solution.

Comments: Paragraphs (4)(b) and (c) should be moved to 480-93-186. Cascade Natural Gas requests that Staff define "building of public assembly" and which of them are required to be surveyed.

- (5) <u>Special surveys.</u> Special leakage surveys must be conducted in the following circumstances:
 - (a) Prior to resurfacing, repairs, or street alterations, where gas facilities are under the area to be paved, and where there is a potential that damage occurred to gas facilities, a gas survey, including manholes and other street openings, must be made;
 - (b) In areas where substructure construction adjacent to underground gas facilities occurs, where there is a potential that damage could have occurred to the gas facilities, an appropriate gas detection survey must be made following the completion of installation but prior to paving;
 - (c) Unstable soil areas where active gas lines could be affected;
 - (d) Special surveys must be made annually of places of public assembly when an active gas service line serves the building or where active gas service lines or mains are located with such close proximity as to present a possible hazard should leakage occur, for example, churches; schools; and hospitals;
 - (e) In areas of unusual activity, such as, earthquake, and explosions.
- (6) <u>Leak survey records.</u> The current and immediately preceding survey of an area records, must be maintained:
 - (a) Description of system and area surveyed (this could include maps and leak survey logs);
 - (b) Survey results;
 - (c) Survey method;
 - (d) Name of employees making survey; and
 - (e) Survey dates

- (8) <u>Self audits.</u> Each gas company is required to perform self audits of the effectiveness of their leak detection program. The following self audits must be performed as frequently as necessary, not exceeding three years:
 - (a) Leak survey schedule must assure that it is commensurate with the minimum federal safety standards for gas pipelines, Subpart M-Maintenance, and the general condition of the pipeline system as required by other applicable regulations;
 - (b) Survey effectiveness evaluate survey results to assure that a consistent evaluation of leaks is being made throughout the system; and
 - (c) Check the adequacy of records.

[Statutory Authority: RCW 80.01.040 and 80.04.160. 01-11-003 (Docket No. UG-990294, General Order No. R-484), § 480-90-999, filed 5/3/01, effective 6/3/01.]