

Cascade Natural Gas Corporation
Response to Proposed WAC 480-93 Revision, Dated October 9, 2003
November 7, 2003

Text enclosed in boxes is proposed rule text.

Text outside of boxes is Cascade Natural Gas comments.



WAC 480-93-005 Definitions.

“Business district” means an area where the public congregate for economic, industrial, religious, educational, health, or recreational purposes, and two or more buildings used for these purposes are located within 100 yards of each other.

Term is used in: WAC 480-93-100 Valves; WAC 480-93-170 Tests and reports thereof for pipelines; WAC 480-93-188 Gas leak surveys.

This definition of business districts includes locations that are not businesses. Buildings where people congregate are covered under the “buildings of public assembly” definition. In the current WAC 480-93-188, buildings of public assembly receive annual survey at the building wall when they are located within 100 feet of a pipeline. Since economic, industrial, religious, educational, health, and recreational buildings of consequence already receive annual public building survey, it is not necessary to add them to the annual survey of business district mains and services.

Adding industrial areas into the “business district” definition seems inappropriate. We have no evidence that annual leak survey is necessary and prudent for industrial areas. We would like to discuss this at the workshop.

We recommend that the “business district” definition be the subject of a separate, dedicated workshop. Continued exchange of written comments on this subject may not expeditiously resolve all parties’ concerns. It would be best if all parties could reach a consensus on this matter.

We recommend that the “business district” definition be limited to areas where commerce is obviously performed and that a specified quantity of people tend to congregate. The intent of this definition is clarification of business district leak survey boundaries. The purpose of requiring annual survey of business districts is that people tend to congregate there. These points should be directly and clearly addressed by the definition.

Existing federal rules require that areas where people tend to congregate receive additional scrutiny. For example, in business districts the leak surveys are once a year rather than five years. Proposed federal rules will also expand existing requirements. For example, an integrity management program must be applied to transmission lines in high consequence areas. The existing and proposed DOT rules already provide additional protection for areas of elevated consequence near pipelines. We should be certain that state requirements over and above federal requirements are prudent and necessary.

(19) **“Place or buildings of public assembly”** means an area where the pipeline lies within 100 yards (91 meters) of either a building, outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least five days a week for 10 weeks in any 12 month period. (The days and weeks need not be consecutive.)

Term is used in: WAC 480-93-020 Proximity considerations; WAC 480-93-170 Tests and reports thereof for pipelines; WAC 480-93-188 Gas leak surveys.

The use of a proximity distance in this definition may cause confusion with the proximity requirements stated in the other rules. For example Rule 020(1)(a) states places of public assembly with 500 feet shall be considered. This definition states that places of public assembly only exist within 300 feet of a pipeline. We recommend that the proximity included in this definition be removed so that the definition only describes a “place or building of public assembly”. The proximity of a building of public assembly should be addressed in the rules that use the term. The proximity distance can be specified for the given application. Example: Rule 480-93-020 “places of public assembly within 500 feet”, Rule 480-93-188 “buildings of public assembly within 100 feet.

We recommend that a “place of public assembly” and a “building of public assembly” be defined separately. These two have similar definitions, but the safety requirements may be different. For example, a place of public assembly is an outside area and not at risk for natural gas accumulation in the event of a leak.

Existing federal rules require that areas where people tend to congregate receive additional scrutiny. For example, in business districts the leak surveys are once a year rather than five years. Proposed federal rules will also expand existing requirements. For example, an integrity management program must be applied to transmission lines in high consequence areas. The existing and proposed DOT rules already provide additional protection for areas of high consequence near pipelines. We should be certain that state requirements over and above federal requirements are prudent and necessary.

(7) **“Confined space”** means any space having a limited means of egress, which is subject to the accumulation of toxic or flammable contaminants or has an oxygen deficient atmosphere. Confined spaces include, but are not limited to, storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than 4 feet in depth such as pits, tubs, vaults, and vessels.

Term used in: WAC 480-93-186 Leakage classification and action criteria; WAC 480-93-18601 Leak classification and action criteria--Grade--Definition--Priority of leak repair--Examples.

The term “confined space” is defined by WISHA for similar spaces in the context of employee safety. WISHA’s use of the term has an entirely different purpose than leak classification. The possibility exists for confusion between this use of the term and WISHA’s use.

We recommend that term “confined space” be deleted from these rules. The locations that “confined space” are meant to encompass should be moved to WAC 480-93-186 and 480-93-18601. Please see our WAC 480-93-186 and 480-93-18601 comments below.

- (8) **“Covered Task”** means an activity identified by the operator, that:
- (a) Is performed on a pipeline facility;
 - (b) Is an operations, maintenance, or new construction activity;
 - (c) Is performed as a requirement of 49 CFR Part 192 and Chapter 480-93 WAC;
and
 - (d) Affects the operation or integrity of the pipeline.

We recommend that “covered task” be deleted. OPS is currently reviewing the addition of construction activities to the CFR OQ rules. Under existing CFR and WAC safety rules, newly constructed pipeline segments are tested before service to assure their safety. There are existing requirements that assure newly constructed pipelines are safe. This issue is not a clear and present safety hazard. We recommend that waiting for Federal rules that address this issue is the best course.

- (24) **“Service line”** means a gas pipeline, not a main, gathering, or transmission line, which provides service to one building. Service lines shall include gas pipelines extended from a main to provide service to one building, which traverse a public right of way or an easement immediately adjacent to a public right of way or another easement.

There are existing waivers in place granted by the Commission that allow split services. Docket UG-971535 granted this permission to Cascade Natural Gas Corporation. This waiver has no expiration. We understand that the other utilities have similar split service waivers. We expect that our waiver will remain in effect if these rules are adopted. We recommend that split services be incorporated into the rule.

WAC 480-93-007 Application of rules.

- (1) This chapter applies to the following activities of operators: the construction, operation,

maintenance, and safety of gas facilities used in the gathering, storage, distribution, and transmission of gas in this state.

- (2) This chapter does not apply to customer-owned facilities, where the customer is the end user, and the customer-owned facilities are on the customer's side of the distribution meter. Customer-owned transmission facilities are subject to the rules in this chapter.
- (3) This chapter does not apply to those operators of gas facilities exclusively under federal jurisdiction for compliance with pipeline safety regulations.

We recommend that a part (4) be added that states, "The provisions of this chapter shall govern to the extent that the standards in the state regulations are compatible with the federal standards."

The recommended sentence is currently contained in 480-93-010. It is proposed that 010 be incorporated into 480-93-999. The proposal for 999 does not include this sentence. We think this clause is important and should be part of the final rules.

480-93-017 Filing requirements for design, specification, and construction procedures.

- (1) Any operator operating a gas pipeline facility in this state must file with the commission all applicable design, specification, and construction procedures used for each pipeline facility prior to operating the pipeline. All procedures must detail the acceptable types of materials, fittings, and components for the different types of facilities in the operator's system.
- (2) With the exception of emergency situations, any construction plans that do not conform with a gas company's existing and accepted design, specification, and construction procedures on file with the commission, must be submitted to the commission for review at least forty-five days prior to the initiation of construction activity.

We recommend that the proposed paragraphs are too broad and if enforced as written will cause unnecessary effort by inspection personnel and gas companies.

The proposed rule makes no distinction between standard designs, specifications, and construction procedures and the day-to-day activities of gas company engineering departments. As written, it would appear that gas companies must submit copies of every individual project design, specification, and construction procedure. We think that inspection personnel only require the standard information so that they may review and understand gas company operations.

We recommend the entire rule be revised to:

"480-93-017 Standard design, specification, and construction procedures.

- (1) Entities operating a gas pipeline facility subject to the rules of this chapter must file with the commission their standard design, specification, and construction procedures used for pipeline facility construction.
- (2) Design, specification, and construction procedures that do not conform to the standards described in paragraph (1) shall be approved by the company's engineering department prior to use.
- (3) Changes to standards described in paragraph (1) shall be forwarded to the commission within 30 days of being updated."

WAC 480-93-020 Proximity considerations.

- (1) Each operator must submit a written request and receive commission approval prior to operating any gas pipeline facility that has the following characteristics:
 - (a) Greater than five hundred pounds per square inch gauge (psig) that is operated within 500 feet of the places described below:
 - (i) A building intended for human occupancy that is in existence or under construction prior to the date authorization for construction is filed with the commission, and that is not owned and used by the petitioning operator in its gas operations;
 - (ii) A place of public assembly in existence or under construction prior to the date authorization for construction is filed with the commission; or
 - (iii) A public highway, as defined in RCW 81.80.010(3).
 - (b) Greater than 250 psig, up to and including 500 psig, that is operated within 100 feet of the places described below:
 - (i) A building intended for human occupancy that is in existence or under construction prior to the date authorization for construction is filed with the commission, and that is not owned and used by the petitioning operator in its gas operations; or
 - (ii) A place of public assembly in existence or under construction prior to the date authorization for construction is filed with the commission.
- (3) Operators must provide documentation proving that it is not practical to select an alternative route that will avoid such locations as described in subsections (a) and (b) above and further provide documents that demonstrate the operator has considered the

possibility of the future development of the area and has designed their pipeline facilities accordingly.

- (4) Operators must provide maps and records to the commission showing the exact location of the pipeline and the shortest direct distance to the places listed above in subsections (a) and (b). Upon request of the commission, the operator must provide with its request the maintenance, construction, and operational history of the pipeline system and an aerial photograph showing the exact location of the pipeline in reference to places listed above in subsections (a) and (b).

We recommend this rule be clear that paragraph (1) and (2) are discussing operating pressures. We recommend inserting the words “Internal pressure” before the word “Greater” in both paragraphs.

We recommend that paragraphs (3) and (4) be updated to say:

- (2) When applying for approval under paragraph (1);
- (a) Operators must provide documentation of alternative routes considered during route selection. Operators shall select a route that maximizes the separation from the locations described in subsections (1)(a) and (1)(b) above. Operators shall provide documents that demonstrate the operator has considered the possibility of the future development of the areas along the alternative routes. Operators shall demonstrate they have designed their pipeline facilities accordingly in proximity zones; and
- (b) Operators must provide maps and records to the commission showing the exact location of the pipeline and the shortest direct distance to the places listed above in subsections (1)(a) and (1)(b). Upon request of the commission, the operator must provide with its request the maintenance, construction, and operational history of the pipeline system and an aerial photograph showing the exact location of the pipeline in reference to places listed above in subsections (1)(a) and (1)(b).

The rewording of proposed paragraph (3) to our recommended paragraph (2)(a) clarifies issues that have been discussed between inspection personnel and Cascade Natural Gas in past proximity permission requests. The current wording does not provide adequate description for companies to understand what elements of the alternative routes are desired for review by inspection personnel. By clarifying this paragraph, companies can provide better information to inspection personnel at the initial request. This will save time for the company and inspection staff.

We also think that paragraphs (2)(a) and (2)(b) should only be applicable when seeking the approval described in paragraph (1).

WAC 480-93-080 Welder and joiner identification and qualification certificates.

- (1) All welding procedures and welders must be qualified to API Standard 1104 (18th edition) or section IX of the ASME Boiler and Pressure Vessel Code (1995 edition). Oxyacetylene welders may qualify under 49 CFR Part 192 Appendix C, and may only perform fillet and butt welds on nominal two-inch or smaller diameter pipe. Appendix C welders must be re-qualified every six months not to exceed seven and one half months but at least twice each calendar year.
 - (a) An operator must use testing equipment necessary to measure the essential variables during welder and procedure qualification, or welder re-qualification. All essential variables must be recorded as performed during welder and procedure testing.
 - (b) Written qualified welding procedures must be on site where welding is being performed.
- (2) Written qualified joining procedures must be on site where joining is being performed by means other than welding.
 - (a) Personnel qualified to join gas pipeline facilities, by means other than welding, must be re-qualified each calendar year, not to exceed 15 months between qualifications.
- (3) The operator must record and retain the qualification and requalification test results for each joiner and welder for a period of 5 years.
- (4) Welders and joiners must carry appropriate identification and qualification cards showing the name of the welder or joiner, their qualifications, the date of qualification and the operator 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.

We recommend paragraph (2)(a) be changed to paragraph (3) and that paragraphs (3) and (4) are "bumped" to (4) and (5) accordingly. The proposed (2)(a) can stand alone.

We recommend that proposed paragraph (2)(a) be clarified so that it applies to only plastic heat fusion joints. The general use of "joiner" may cause confusion that mechanical joints are part of the annual requalification requirements.

WAC 480-93-100 Valves.

All underground main or transmission line valves not covered under CFR 192.745 or CFR

192.747 and valves installed on service lines to buildings or places of public assembly, or commercial buildings within business districts, must be accessible and maintained in proper working order.

We have underground distribution valves that have become obsolete due to system growth and redesign. These valves are not essential for the safe operation of our systems. Accessing and operating these valves will have no effect in closing off a section of a town in an emergency. Maintaining access and a working order for these valves is not essential for safety. We recommend that this rule be deleted.

WAC 480-93-110 Corrosion control.

The numbering and organization of this proposed rule appear to be incorrect. We recommend that a corrected copy be made available prior to the workshop and that the proposed rule be discussed at the workshop.

WAC 480-93-115 Casing of pipelines.

- (1) Whenever an operator installs a steel pipeline in a casing, the casing must be bare steel.
- (2) Operators must attach a separate test lead wire to the casing and the steel gas pipeline to verify that no electric short exists between the two.
- (3) Whenever an operator installs a pipeline in a casing or conduit of any type material, the operator must seal the casing ends to prevent the migration of gas.

We recommend that paragraph (3) should not restrict a company's options for reducing the danger of gas migrating through a casing or conduit. The safety concern is that migrating gas will be brought close to a building wall because of the ready path that is available. Sealing the casing or conduit is not the only solution. For instance, requiring the casing or conduit ends be a specified minimum distance from a building foundation would provide equivalent protection.

We recommend the wording be changed to:

“Whenever an operator installs a pipeline in a casing or conduit of any type material, the operator must design and install the casing or conduit so as to minimize the possibility that gas will migrate to nearby buildings. Acceptable methods include, but are not limited to, sealing the

end of the casing or conduit nearest the building, or placing the end of the casing or conduit a specified minimum distance from the building.”

WAC 480-93-124 Pipeline markers.

- (1) Operators must place pipeline markers at all railroad, road, irrigation, and drainage ditch crossings, and at all fence lines where a pipeline crosses private property, or where a pipeline is exposed. Operators must place pipeline markers approximately 500 yards apart if practical, and at points of horizontal deflection of the pipeline.
- (2) Where gas pipelines are attached to bridges or otherwise span an area, operators must place pipeline markers at both ends of the suspended pipeline. Each operator must conduct inspections once each calendar year, not to exceed 15 months of suspended pipelines, and maintain the markers to ensure that they are visible and legible.
- (3) Operators must place pipeline markers where practical, on all mains operating above 250 psig.
- (4) Operators must replace markers that are reported damaged and missing within 45 days.
- (5) Surveys of pipeline markers not associated with section (2) above must be conducted once every three calendar years, not to exceed 39 months between surveys. The survey records must be kept for a minimum of five years.

A strong “call before you dig” system is the best way to prevent damage of underground utilities. We do not think that damage prevention and public information is best served by marker survey requirements. We recommend that the survey requirements be deleted from this proposed rule.

We recommend the survey proposed in part (5) would be best to coincide with leak surveying of mains. This would be a period of 60 months for distribution system piping.

WAC 480-93-130 Multistage pressure regulation.

Where gas pressures are reduced in two or more stages, an operator must install the necessary regulators and equipment in such a manner as to provide maximum protection between regulator stages. The purpose is to minimize the potential dangers from the failure of one stage of regulator equipment due to fire, explosion, or damage of any kind from adversely affecting the operation of the other stage or stages of regulation. A minimum of 50 feet of separation must be provided between regulator stages when feasible.

We recommend the word “maximum” be deleted from the first sentence. The second sentence describes the purpose of “providing protection”. The use of “maximum” is unnecessary.

WAC 480-93-140 Service regulators.

- (1) Operators must install, operate, and maintain service regulators in accordance with federal and state regulations, and in accordance with the manufacturer’s recommended installation and maintenance practices.

- (2) Operators must inspect and test service regulators and associated safety devices installed on services each time the regulators and devices are turned on, to determine whether they are in proper operating condition. Testing must include determining the gas regulator’s outlet set pressure at a specified flow rate. Operators must use pressure gauges downstream of the regulator during testing. Safety devices such as fracture discs are not required to be tested each time the device is turned on.

We note that the word “each” appears to be misspelled in the last sentence of paragraph (2).

We recommend the service regulators be checked only during installation, or when a customer or service personnel detect a problem. This is our current practice for service regulators. The proposed wording would require us to retest all service regulators that are shut off whenever the meter stop is closed, for whatever reason. We do not think that would be necessary, as we have not detected a safety problem using our current practice.

WAC 480-93-155 Increasing maximum allowable operating pressure.

- (1) Each operator must submit to the commission for review 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 (psig). The plan must include a review of the following:
 - (a) All affected gas facilities, including pipe, fittings, valves, and other affected equipment, with their manufactured design operating pressure and specifications;
 - (b) Original design and construction standards;
 - (c) All previous operating pressures and length of time at that pressure;
 - (a) All leaks, regardless of cause, and the date and method of repair;
 - (b) If the pipeline is being uprated to a specified minimum yield strength of over 20

percent then the original welding standards and records must be provided.

- (c) All upstream and downstream regulators and relief valves;
 - (g) 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, that is electrically isolated; and
 - (h) Records deemed necessary by commission staff to evaluate the pressure increase.
- (2) Upgrades must be based on a previous pressure test that would substantiate the maximum allowable operating pressure. When there is no documented history of a pressure test, an operator must conduct a pressure test in conjunction with the upgrade.

We recommend that paragraph (2) apply only to lines that will be upgraded to maximum allowable operating pressures in excess of 60 psig.

WAC 480-93-yyy Protection of plastic pipe.

- (1) Every operator must have detailed written procedures for the storage, and handling of plastic pipelines. The procedures for storage, handling, and installation of all plastic pipelines other than joining procedures, must be in accordance with the latest applicable manufacturer's recommended practices. Unless the manufacturer specifies a more stringent requirement, the operator must adhere to the following requirements:
 - (a) The maximum cumulative ultraviolet light exposure limit for plastic pipe is 2 years or the manufacturer's recommended exposure limit; and
 - (b) When plastic pipe is pulled through the ground during the installation process and the pipe could potentially be exposed to excessive tensile stresses, operators must use a weak link or other method of ensuring that the pipe will not be damaged.
- (2) When installing plastic pipelines parallel to other underground utilities, an operator must maintain a minimum of 12 inches of separation from the other utilities. Where a minimum 12 inches of separation is not possible, operators must take adequate precautions to minimize any potential hazards resulting from the close proximity to the other utilities.
- (3) When installing plastic pipelines perpendicular to other underground utilities, operators must maintain a minimum of six inches of separation from the other utilities. Where a minimum six inches of separation is not possible, an operator must take adequate precautions to minimize any potential hazards resulting from the close proximity to the

other utilities.

- (4) Operators must not install plastic pipe above ground. Where necessary to prevent customer outage and no other alternative exists, an operator may temporarily install plastic pipe above ground for a period of 30 days. During the temporary installation, the operator must take measures to protect the plastic pipe from damage.
- (5) Operators must not backfill or bed plastic pipe with any rock, or debris larger than one-half inch in diameter, or any materials that could potentially cause damage to the pipe. Operators must take all efforts to provide a rock-free bedding material for plastic pipe.
- (6) Operators must not squeeze plastic pipe more than one time in the same location.
- (7) Plastic pipe must not be squeezed within twelve inches or 3 pipe diameters from any joint, whichever is greater.
- (8) Every operator must develop procedures to ensure that whenever plastic pipe is encased, suitable precautions are taken to prevent crushing or shearing of the plastic pipe where it exits the casing.

We recommend that the second sentence of paragraph (5) have the word “rock-free” be changed to “suitable”. The first sentence describes the type of backfill material that is acceptable.

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

Each operator must have a manual of written plans and procedures for operations, maintenance, construction, inspection, and emergency response activities. The manual must comply with the provisions and general intent of the “Pipeline Safety Improvement Act of 2002.” The manual must include plans and procedures for all requirements of Title 49 CFR, Part 192 and Chapter 480-93 WAC, and any plans or procedures used by operator associated contractors. Such plans, procedures and amendments must be filed with the commission as soon as practical for review and determination as to their adequacy, when properly executed, to achieve an acceptable level of safety. The commission may, after notice and opportunity for hearing, require that such plans and procedures be revised or amended. Applicable portions of the manual related to the procedures being performed on the pipeline must be retained on-site where the activity is being performed.

The “general intent” of the Pipeline Safety Improvement Act of 2002 is open to interpretation, and would not be enforceable. The “requirements” of the Act are enforceable. Also, the Act directs the Office of Pipeline Safety to enact rules that ensure compliance with the requirements

of the Act. Since 49 CFR, Part 192 will require compliance with the Act, this rule does not need to mention the Act. We recommend that the references to the Pipeline Safety Improvement Act of 2002 be deleted. If the reference is not deleted, then we recommend the words “general intent” be changed to “requirements”.

WAC 480-93-185 Gas leak investigation.

- (1) The operator 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 in accordance with WAC 480-93-186, and take appropriate action.
- (2) In the event of an explosion, fire, death, or injury, the operator must not remove any suspected gas facility until the commission or the lead investigative authority have designated the release of the gas facility. Once the situation is made safe, the operator must keep the facility intact until directed by the lead investigative authority.
- (3) 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, the operator must take appropriate action to protect life and property. 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, fire department or other appropriate governmental agency. The operator must keep a record of all leak investigations. If the property owner or an adult person occupying the premises is not available, the operator must, within twenty-four hours of the leak investigation, send by first-class mail, addressed to the person occupying the premises, a letter explaining the results of the investigation. The operator must keep a copy of the letter with the corresponding leak investigation record. The operator must retain the letter and leak investigation record for the life of the pipeline. If the leak was found to originate from a foreign source and no pipeline facility is present, the leak investigation report must be kept for a period of five years.

We recommend that paragraph (3) be clarified so that the record keeping requirements for “leak investigations on pipeline facilities” and “leak investigations on foreign sources” is made clear and separate. The paragraph groups both types of leak investigations and may cause confusion. We recommend that this paragraph be broken into separate paragraphs for “leak investigations on pipeline facilities” and for “leak investigations on foreign sources”.

We recommend that when a leak investigation of a utility’s pipeline facility results in finding no leaks that the record not be “kept for the life of the facility”. The record of a “false” leak investigation should be kept for documentation review, commission review, and other leak investigation audits. Utilities should not be burdened with keeping these “false” records for the

life of the facility because they tell us nothing about the facility. We recommend that “false” investigation reports for pipeline facilities be kept for five years, just as the “true” and “false” reports for foreign facilities.

WAC 480-93-186 Leakage classification and action criteria.

- (1) Based on an evaluation of the location and/or magnitude of a leak, the operator must assign one of the leak grades in section (3) below, thereby establishing the leak repair priority. An operator may use 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 used such a grading designation. Operators must apply the same criteria for initial leak grading and to re-inspected leaks.
- (2) Gas leak classification and repair. Each operator must establish a procedure for evaluating the concentration and extent of gas leakage. When evaluating any leak, the operator must determine and document the perimeter of the leak area. If the perimeter of the leak extends to a building wall, the operator must extend the investigation inside the building. Where the reading is in an unvented, confined space, the operator must consider the rate of dissipation when the space is ventilated and the rate of accumulation when the space is resealed.
- (3) Leak grades.
 - (a) Grade 1 means a leak that represents an existing or probable hazard to persons or property, and requires immediate repair or continuous action until conditions are no longer hazardous.
 - (b) Grade 2 means a leak recognized as being non-hazardous at the time of detection but requiring scheduled repair based on potential future hazard.
 - (c) Grade 3 - means a leak that is non-hazardous at the time of detection and can reasonably be expected to remain non-hazardous.
 - (d) Grade 1 or Grade 2 leaks may not be downgraded to a Grade 3 leak without a physical repair made to the pipeline facility.
- (4) Leakage classification and control requirements are provided in section 18601 below. The examples of leakage provided in the table are guidelines and are not exclusive.
- (5) Follow-up inspections. The operator must check the perimeter of the leak area with a combustible gas indicator. The operator must re-inspect all leaks with residual gas remaining in the ground as soon as practical but no later than 30 days following the repair.

We recommend the word “confined” be removed from paragraph (2). This does not change the intent or meaning of that paragraph.

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

- (1) A Grade 1 leak is a leak that represents an existing or probable hazard to persons or property and requiring prompt action, immediate repair, or continuous action until the conditions are no longer hazardous. Prompt action may require one or more of the following:
 - (a) Implementation of the operator’s emergency plan pursuant CFR 49 part 192.615;
 - (b) Evacuating the premises;
 - (c) Blocking off an area;
 - (d) Rerouting traffic;
 - (e) Eliminating sources of ignition;
 - (f) Venting the area;
 - (g) Stopping the flow of gas by closing valves or other means; or
 - (h) Notifying police and fire departments.

- (2) The following are examples of Grade 1 leaks requiring prompt action:
 - (a) Any leak which, in the judgment of operating personnel at the scene, is regarded as an immediate hazard;
 - (b) Escaping gas that has ignited unintentionally;
 - (c) Any indication of gas that has migrated into or under a building or tunnel;
 - (d) Any reading at the outside wall of a building or where the gas could potentially migrate to the outside wall of a building;
 - (e) Any reading of 80 percent L.E.L. or greater in a confined space;

- (f) Any reading of 80 percent L.E.L., or greater in small substructures not associated with gas facilities where the gas could potentially migrate to the outside wall of a building; or
 - (g) Any leak that can be seen, heard, or felt and which is in a location that may endanger the general public or property.
- (3) A Grade 2 leak is a leak that is recognized as being nonhazardous at the time of detection but justifies scheduled repair based on potential future hazard. Operators must repair or clear Grade 2 leaks within 15 months from the date the leak is reported. If a Grade 2 leak occurs in a segment of pipeline that is under consideration for replacement, an additional six months may be added to the 15 months maximum time for repair provided above. In determining the repair priority, operators should consider the following criteria:
- (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.
- (4) Operators must re-evaluate Grade 2 leaks at least once every six months until cleared. The frequency of reevaluation should be determined by the location and magnitude of the leakage condition.
- (5) Grade 2 leaks vary greatly in degree of potential hazard. Some Grade 2 leaks, when evaluated by the above criteria, will require prompt scheduled repair within the next five working days. Others will require repair within 30 days. These situations must be brought to the attention of the individual responsible for scheduling leakage repair at the end of the working day.
- (6) Many Grade 2 leaks, because of their location and magnitude, can be scheduled for repair on a normal routine basis with periodic reinspection as necessary.
- (7) The following should be considered when evaluating Grade 2 leaks:
- (a) Leaks requiring action ahead of ground freezing or other adverse changes in venting conditions;
 - (b) Any leak, which under frozen or other adverse soil conditions, that could potentially migrate to the outside of a building.

(8) Grade 2 leaks requiring action within six months:

- (a) Any reading of 40 percent L.E.L. or greater under a sidewalk in a wall-to-wall paved area that does not qualify as a Grade 1 leak where gas could potentially migrate to the outside wall of a building;
- (b) Any reading of 100 percent L.E.L. or greater under a street in a wall-to-wall paved area that does not qualify as a Grade 1 leak where gas could potentially migrate to the outside wall of a building;
- (c) Any reading less than 80 percent L.E.L. in small substructures not associated with gas facilities where gas could potentially migrate creating a probable future hazard;
- (d) Any reading between 20 percent L.E.L. and 80 percent L.E.L. in a confined space;
- (e) Any reading on a pipeline operating at 30 percent specified minimum yield strength or greater in Class 3 or 4 locations that does not qualify as a Grade 1 leak; or
- (f) Any leak which in the judgment of operating personnel at the scene is of sufficient magnitude to justify scheduled repair.

(9) A Grade 3 leak is a leak that is nonhazardous at the time of detection and can reasonably be expected to remain nonhazardous.

- (a) Operators should re-evaluate grade 3 leaks 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.

(10) The following are examples of grade 3 leaks requiring re-evaluation at periodic intervals:

- (a) Any reading of less than 80% L.E.L in small gas associated substructures, such as small meter boxes or gas valve boxes; or
- (b) 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.

We recommend that paragraph (2)(e) be deleted and the requirements be moved to (2)(f).

We recommend that paragraph (2)(f) be changed to read:

“A reading of 80 percent L.E.L., or greater in storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top

spaces more than 4 feet in depth such as pits, tubs, vaults, and vessels where the gas could potentially migrate to the outside wall of a building;”

We recommend that paragraph (8)(d) be changed to read:

“A reading between 20 percent L.E.L. and 80 percent L.E.L. in storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, or open top spaces more than 4 feet in depth such as pits, tubs, vaults, or vessels;”

WAC 480-93-188 Gas leak surveys.

- (1) Operators must perform gas leak surveys using a gas detection instrument covering the following areas:
 - (a) Over all mains, services, and transmission lines including the testing of the atmosphere near a utility (gas, electric, telephone, sewer, or water) and other underground structures;
 - (b) Through cracks in paving, in wall-to-wall paved areas, and in sidewalks;
 - (c) Along walls of businesses and buildings of public assembly that are within 100 feet of an active pipeline;
 - (d) On all above ground piping (may be checked with either a gas detection instrument or with a soap solution);
 - (e) Where a gas service line exists, at the building wall point of entrance, using a bar hole where necessary (within business districts the entire service length must be surveyed); and
 - (f) Within all buildings where gas leakage has been detected at the outside wall, and, at all points where escaping gas could potentially migrate into and accumulate inside the building;
- (2) Gas detection instruments must be maintained, calibrated, and operated in accordance with the manufacturer’s recommendation. If there is no manufacturer’s recommendation, then instruments must be calibrated monthly not to exceed 45 days but at least 12 times per year.
- (3) Gas leak surveys must be conducted according to the following minimum frequencies:
 - (a) Business districts - once each calendar year, not to exceed 15 months between surveys;

- (b) Residential areas - as frequently as necessary, but not to exceed 5 years between surveys;
 - (c) Places or buildings of public assembly - once each calendar year, not to exceed 15 months;
 - (d) Mains operating above 250 psig - once each calendar year, not to exceed 15 months between surveys;
 - (e) Where the gas system has cast iron, wrought iron, copper, or non-cathodically protected steel - twice each calendar year, not to exceed 7 1/2 months between surveys; and
 - (f) Bare pipeline segments that have been cathodically protected due to corrosion that resulted in leakage - twice each calendar year, not to exceed 7 1/2 months between surveys.
- (4) Special leak surveys must be conducted under the following circumstances:
- (a) Prior to paving or resurfacing, following street alterations or repairs where gas facilities are under the area to be paved, and where there is potential that damage could have occurred to gas facilities;
 - (b) In areas where substructure construction occurs adjacent to underground gas facilities, and there is potential that damage could have occurred to the gas facilities, operators must perform a gas leak survey following the completion of construction, but prior to paving;
 - (c) Unstable soil areas where active gas lines could be affected; and
 - (d) In areas and at times of unusual activity, such as earthquake, floods, and explosions.
 - (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.
- (5) Survey records must be kept for a minimum of five years. At a minimum, survey records must contain the following information:
- (a) Description of the system and area surveyed (this could include maps and leak survey logs.);
 - (b) Survey results;

- (c) Survey method;
 - (d) Name of the employee who performed the survey;
 - (f) Survey dates; and
 - (g) Instrument tracking or identification number.
- (6) Each operator must perform self audits of the effectiveness of its leak detection and record keeping programs. Operators must maintain records of the self audits for five years. Self audits must be performed as frequently as necessary, but not to exceed three years between audits. At a minimum, self audits should ensure that:
- (a) Leak survey schedules meet the minimum federal and state safety requirements for gas pipelines;
 - (b) Consistent evaluations of leaks are being made throughout the system;
 - (c) Repairs are made within the timeframe allowed;
 - (d) Repairs are effective; and
 - (e) Records are accurate and complete.

Paragraph (1)(c) includes the terms “businesses and buildings of public assembly”. We think that business district leak survey requirements adequately protect businesses located in areas where people tend to congregate. We recommend the word “businesses” be removed from that paragraph. This will clarify that businesses are not necessarily buildings of public assembly. If a business is a building of public assembly, it will be leak surveyed as part of the building of public assembly leak surveys.

We recommend that paragraph (3)(d) be revised to state:
“Mains operating above 250 psig internal pressure...”

“Places of public assembly” are outdoors and not prone to gas accumulation. It does not seem appropriate that these places receive the same frequency of survey that a building receives. A leak poses little threat to outdoor areas due to the dispersion effect of wind and weather. The addition of all mains operating above 250 psig internal pressure for annual survey in paragraph (3)(d) provides annual survey of critical lines near these places. We recommend that “places of public assembly” not be included as a specific leak survey since these areas are adequately protected from leaks by the existing and proposed distribution system leak survey requirements.

WAC 480-93-200 Reports associated with operator facilities and operations.

- (1) Every operator must give notice to the commission by telephone within two hours of occurrence of every incident or hazardous condition arising out of its operations that:
 - (a) Results in a fatality or personal injury requiring hospitalization;
 - (b) Results in damage to the property of the operator and others of a combined total exceeding five thousand dollars (automobile collisions and other equipment accidents not involving gas or gas handling equipment need not be reported under this rule);
 - (c) Results in the evacuation of a dwelling, building, or area of public assembly;
 - (d) Results in the unintentional ignition of gas;
 - (e) Results from construction defects or material failure;
 - (f) Results in the un-controlled release of gas for more than two hours;
 - (g) Is significant, in the judgment of the operator, even though it does not meet the criteria of (a), (b), (c), (d), (e), (f) of this subsection;
 - (h) Results in the taking of a high pressure supply or transmission pipeline or a major distribution supply pipeline out of service or lowering its pressure fifty percent or more below its normal operating pressure;
 - (i) Results in the news media reporting the occurrence, even though it does not meet the criteria of (a) through (h) of this section;
 - (j) Results in a pipeline or system operating at low pressure dropping below the safe operating conditions of attached appliances and gas equipment;
 - (k) Whenever a pipeline, operating in excess of 250 psig, is taken out of service;
 - (l) Unscheduled interruptions to the service furnished by any operator to an industrial customer, a master meter customer, or 25 or more distribution customers; or
 - (m) Results in damage and leakage of a four-inch nominal diameter and larger pipeline.
- (2) Routine or planned maintenance and operational activities of the operator that result in operator-controlled plant and equipment shut downs, reduction in system pressures

except as noted in section (1) above, flaring or venting of gas, and normal leak repairs are not reportable items under this section.

- (3) When a pipeline or system pressure exceeds the maximum allowable operating pressure or the maximum pressure allowed by proximity considerations outlined in WAC 480-93-020, the operator must notify the commission by telephone within two hours, to be followed by written explanation within thirty days;
- (4) Operators must provide to the commission the reports required in section (1) above, verified in detail in writing within 30 days of the initial telephonic report. At a minimum, written reports must include the following:
 - (a) Name(s) and address(es) of any person or persons injured or killed or whose property was damaged;
 - (b) The extent of such injuries and damage;
 - (c) A description of the incident or hazardous condition including the date, time, and place;
 - (d) A description of the gas facilities involved in the incident or hazardous condition, the system operating pressure at that time, and the maximum allowable operating pressure of the facilities involved;
 - (e) The date and time the gas facility was made safe;
 - (f) The date, time, and type of any temporary or permanent repair made; and
 - (g) The cost of the incident to the operator.
- (5) Operators must provide to the commission a written report within 30 days of receiving the failure analysis of any incident or hazardous condition that was due to construction or material failure.
- (6) Operators must file with the commission a copy of every RSPA F-7100.1-1 and F-7100.2-1 annual report required by US Department of Transportation, Office of Pipeline Safety. In addition to the above required forms, operators must file with the commission the report titled, "Damage Prevention Statistics", with the corresponding RSPA fiscal year. The Damage Prevention Statistics report must include in detail the following information:
 - (a) Number of gas related One-Call locate requests completed in the field;

- (b) Number of third-party damages incurred; and
 - (i) specific cause of damage.
 - (ii) locates not accurate;
 - (iii) operator failed to use reasonable care; or excavated prior to locates.

- (7) Operators must file with the commission, and with appropriate officials of all municipalities where operators have facilities, the names, addresses, and telephone numbers of the responsible officials of the operator who may be contacted in the event of an emergency. In the event of any changes in operator personnel, the operator must notify immediately the commission and municipalities.

- (8) Operators must send daily reports of construction and repair activities electronically to the commission. Operators may send reports either by facsimile or e-mail to the commission. The reports must be received no later than 10:00 AM each day of the scheduled work, and must include both operator and contractor construction and repair activities.

- (9) When an operator is required to file a copy of a RSPA Drug Testing and Alcohol Testing MIS "EZ" Data Collection Form with the Federal Office of Pipeline Safety, the operator must simultaneously submit a copy of the form to the commission.

We are interested in providing appropriate pipeline safety data to the commission. We recommend further discussions of this entire proposed rule to achieve a consensus for this proposal. At this time, we do not understand all the benefits that will be derived from the proposed rules requirements. These proposed changes will impact gas company costs and divert personnel from other matters. We welcome the opportunity to document the costs of the proposed rule in the SBEIS questionnaire noted in the October 9, 2003 response. If necessary, we recommend that another workshop be dedicated to this proposed rule so that it may be adequately discussed. Continued exchange of written comments on this subject may not expeditiously resolve all parties' concerns. It would be best if all parties could reach a consensus on this matter.

We recommend that the time limit for reporting be "from discovery" instead of "from occurrence". The June 25, 2003 response to our February 14, 2003 comments stated that the intent was "from discovery", but this was not revised in the proposed rule set.

We recommend that the time frame for telephonic reports be "As soon as practical upon discovery, but 6 hours from discovery at maximum" and not "2 hours from occurrence". Reports to the commission that are made before enough information is gathered will result in passage of information that is later determined to be false. Inspection personnel's time is wasted if the report turns out to be unnecessary. Public safety is not served by diverting emergency

responder's attention from protecting life and property so that inspection personnel know about the issue within two hours. Inspection personnel should be informed of significant events when accurate information is available and the communication of that information does not hinder our shared responsibility for public safety.

We recommend that paragraphs (1)(c), 1(d), (1)(e), (1)(f), and (1)(m) be deleted. These events may not be significant events, and if they are significant, shall be reported under the provisions of paragraph (1)(g).

We recommend that paragraph (3) require that the occurrence be reported "upon discovery". We also recommend that the time limit be "As soon as practical upon discovery, but 6 hours from discovery at maximum".

Inspection personnel currently review gas company operating records for instances of overpressure and require explanations of remedial actions. Many overpressures can be dealt with through the inspection process because they do not represent an ongoing or immediate threat. We recommend that telephonic reporting for overpressures be limited to instances where the internal operating pressure exceeds MAOP by 5 psig or 5% of MAOP, whichever is less.

We recommend that paragraph (5) require that the reports be limited to "the failure analysis of any Part 191 defined incident or safety related condition that was due to construction or material failure". Part 191 incidents and safety related conditions are significant events. If the failure did not result in a significant event, then there is no need for inspection personnel to spend time on the matter.

We recommend that paragraph (6) be discussed at the workshop. We would like to better understand this requirement prior to commenting.

We recommend that paragraph (8) be revised. Submitting reports should only be required if the reports are necessary. This information should be obtained by contacting the specific operations base, not by requiring all gas companies to report every day regardless of the location of inspection personnel. We agree that inspection personnel must have open access to gas company construction activities if their inspections are to be complete. We have always worked with inspection personnel to provide access to our construction activities. We recommend that the proposed rule be changed to allow the reports to be submitted upon a specific and prudent demand to avoid the waste of company resources on reports that are oftentimes not used.