

## Chapter PSC 135

### GAS SAFETY

#### Subchapter I — General Provisions

- PSC 135.011 Character of construction, maintenance, and operation.  
 PSC 135.012 Facilities, inspection and repairs.  
 PSC 135.013 Application of rules.  
 PSC 135.014 Protection of gas pipeline facilities.  
 PSC 135.015 Interference with gas pipeline facilities.  
 PSC 135.016 Leak survey reports.  
 PSC 135.017 Over-pressure protection.  
 PSC 135.019 Adoption of federal minimum pipeline safety standards by reference.

#### Subchapter II — Additions to 49 CFR Part 192

- PSC 135.053 General additions [49 CFR 192.53].  
 PSC 135.055 Steel pipe addition [49 CFR 192.55].  
 PSC 135.125 Design of copper pipe addition [49 CFR 192.125].  
 PSC 135.163 Compressor stations: design and construction additions [49 CFR 192.163].  
 PSC 135.171 Compressor stations: additional safety equipment addition [49 CFR 192.171].  
 PSC 135.173 Compressor stations: ventilation addition [49 CFR 192.173].  
 PSC 135.181 Distribution line valves addition [49 CFR 192.181].  
 PSC 135.183 Vaults: structural design requirements additions [49 CFR 192.183].  
 PSC 135.187 Vaults: sealing, venting, and ventilation addition [49 CFR 192.187].  
 PSC 135.189 Vaults: drainage and waterproofing additions [49 CFR 192.189].  
 PSC 135.195 Protection against accidental overpressuring additions [49 CFR 192.195].  
 PSC 135.197 Control of the pressure of gas delivered from high-pressure distribution systems additions [49 CFR 192.197].  
 PSC 135.199 Requirements for design of pressure relief and limiting devices additions [49 CFR 192.199].  
 PSC 135.204 Addition [49 CFR 192.204w].  
 PSC 135.246 Addition [49 CFR 192.246w].  
 PSC 135.279 Copper pipe addition [49 CFR 192.279].  
 PSC 135.307 Inspection of materials addition [49 CFR 192.307].  
 PSC 135.309 Repair of steel pipe addition [49 CFR 192.309].  
 PSC 135.319 Installation of pipe in a ditch additions [49 CFR 192.319].  
 PSC 135.321 Installation of plastic pipe additions [49 CFR 192.321].  
 PSC 135.323 Casing addition [49 CFR 192.323].  
 PSC 135.324 Addition [49 CFR 192.324w].

- PSC 135.325 Underground clearance addition [49 CFR 192.325].  
 PSC 135.355 Customer meters and regulators: protection from damage additions [49 CFR 192.355].  
 PSC 135.365 Service lines: location of valves addition [49 CFR 192.365].  
 PSC 135.371 Service lines: steel addition [49 CFR 192.371].  
 PSC 135.375 Service lines: plastic addition [49 CFR 192.375].  
 PSC 135.377 Service lines: copper additions [49 CFR 192.377].  
 PSC 135.457 External corrosion control: buried or submerged pipelines installed before August 1, 1971 addition [49 CFR 192.457].  
 PSC 135.505 Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS addition [49 CFR 192.505].  
 PSC 135.511 Test requirements for service lines addition [49 CFR 192.511].  
 PSC 135.613 Continuing surveillance additions [49 CFR 192.613].  
 PSC 135.614 Damage prevention program addition [49 CFR 192.614].  
 PSC 135.621 Maximum allowable operating pressure: high-pressure distribution systems additions [49 CFR 192.621].  
 PSC 135.623 Maximum allowable operating pressure: low-pressure distribution systems addition [49 CFR 192.623].  
 PSC 135.629 Purging of pipelines addition [49 CFR 192.629].  
 PSC 135.707 Line markers for mains and transmission lines addition [49 CFR 192.707].  
 PSC 135.713 Transmission lines: permanent field repair of imperfections and damages addition [49 CFR 192.713].  
 PSC 135.720 Addition [49 CFR 192.720w].  
 PSC 135.722 Addition [49 CFR 192.722w].  
 PSC 135.723 Distribution systems: leakage surveys additions [49 CFR 192.723].  
 PSC 135.724 Addition [49 CFR 192.724w].  
 PSC 135.727 Abandonment or deactivation of facilities addition [49 CFR 192.727].  
 PSC 135.735 Compressor stations: storage of combustible materials addition [49 CFR 192.735].  
 PSC 135.741 Pressure limiting and regulating stations: telemetering or recording gauges addition [49 CFR 192.741].  
 PSC 135.744 Addition [49 CFR 192.744w].  
 PSC 135.747 Valve maintenance: distribution systems addition [49 CFR 192.747].  
 PSC 135.751 Prevention of accidental ignition addition [49 CFR 192.751].  
 PSC 135.753 Caulked bell and spigot joints addition [49 CFR 192.753].

**History:** Chapter PSC 135 as it was in effect on May 31, 1972 was repealed and a new chapter PSC 135 was created, Register, May, 1972, No. 197, effective 6-1-72. Chapter PSC 135 as it existed on October 31, 1999 was repealed and a new chapter PSC 135 was created, Register, October, 1999, No. 526, eff. 11-1-99.

#### Subchapter I — General Provisions

**PSC 135.011 Character of construction, maintenance, and operation.** All gas transmission, distribution, and utilization equipment and facilities shall be constructed, installed, operated, and maintained in a reasonably adequate and safe manner and as more specifically provided for in this chapter.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.012 Facilities, inspection and repairs.** All facilities shall be cleaned when necessary and inspected at such intervals as experience has shown to be necessary. Any facilities known to be defective so as to endanger life or property shall be promptly repaired, permanently disconnected, or isolated until repairs can be made. Construction, repairs, additions, and changes to gas transmission and distribution facilities shall be made by qualified persons only.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.013 Application of rules. (1)** Every gas public utility and gas pipeline operator that operates gas transmission or distribution facilities in this state shall comply with this chapter.

**(2) WAIVING RULES.** The provisions of this chapter may be modified or waived by the public service commission. They may be so modified or waived in particular cases wherever shown to be impracticable for special reasons or where the advantage of

uniformity with existing construction is greater than the advantage of construction in compliance with the rules providing the existing construction is reasonably safe or if equivalent or safer construction is secured in other ways.

**(3) TEMPORARY INSTALLATIONS.** It may sometimes be necessary to modify or waive certain of the provisions in this chapter in case of temporary installations or installations which are shortly to be dismantled or reconstructed. Such temporary construction may be used for a reasonable length of time provided it is under competent supervision while it or adjoining equipment is under pressure or if it is protected by suitable barriers or warning signs when accessible to any person, without fully complying with this chapter; but all such construction shall be made reasonably safe.

**(4) EMERGENCY.** In case of emergency or pending decision of the public service commission, the person responsible for the installation may decide as to modification or waiver of any rule or order, subject to review by the public service commission.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

#### PSC 135.014 Protection of gas pipeline facilities.

**(1)** A gas pipeline operator, upon receiving notice as provided in s. 66.047 or 182.0175 (2m), Stats., of work which may affect its facilities used for serving the public shall:

(a) If the notice is of work covered by s. 66.047, Stats., investigate and decide what action, if any, must reasonably be taken to protect or alter utility facilities in order to protect service to the public and to avoid unnecessary damage. The gas pipeline operator shall take such action as is reasonably necessary to protect, remove, alter, or reconstruct its facilities, and shall perform such

work with reasonable dispatch taking into account the conditions to be met. Nothing in this paragraph shall affect any right which the gas pipeline operator may have to require advance payment or adequate assurance of payment of reasonable costs to the gas pipeline operator by the property owner or contractor.

(b) If the notice is of work covered by s. 182.0175 (2m), Stats., and is not covered by s. 66.047, Stats., the gas pipeline operator shall respond as required by s. 182.0175 (2m), Stats.

(2) The gas pipeline operator may, in order to protect its interests, require that the owner or contractor perform certain work upon that part of the service piping or wiring on or being removed from the property upon which the excavating, building, or wrecking operations are being performed.

(3) This section is not intended to affect the responsibility of the contractor or owner, or the liability or legal rights of any party.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.015 Interference with gas pipeline facilities.** (1) A gas pipeline operator having any work upon, over, along, or under any public street, highway or private property near existing gas pipeline facilities shall give reasonable notice to another public utility or operator and shall exercise care when working in close proximity to such existing facilities. Sections 66.047 and 182.0175, Stats., shall be observed where applicable. In all other cases such notice shall provide another public utility or operator with a reasonable opportunity to protect or alter its facilities and such work shall not proceed without an agreement concerning the location and nature of the proposed work.

(2) Nothing in sub. (1) shall prevent a gas pipeline operator from proceeding as quickly as possible with any emergency construction work which might interfere with existing facilities.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.016 Leak survey reports.** The federal department of transportation, office of pipeline safety, requires each operator of a distribution system or of a transmission system to submit an annual report for the preceding calendar year not later than March 15. The operators of such systems in this state shall submit a copy of these reports to the public service commission on or before the filing date as required by the federal regulations. In addition to this annual report and at the same time, the operators shall report the number of leaks which were found in customer-owned facilities by either a survey or complaint during the preceding calendar year.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.017 Over-pressure protection.** Over-pressure protection is required by 49 CFR 192.197 and shall apply to all installations in this state.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.019 Adoption of federal minimum pipeline safety standards by reference.** (1) The federal department of transportation, office of pipeline safety, pipeline safety standards, as adopted through May 20, 1999, and incorporated in 49 CFR Parts 192, 193 and 199, including the appendices, are adopted as state pipeline safety standards and incorporated by reference into this chapter.

(2) State additions to the federal pipeline safety standards are shown in subch. II.

(3) Pursuant to s. 227.21, Stats., the attorney general and the revisor of statutes have consented to the incorporation by reference of the provisions in 49 CFR Parts 192, 193 and 199, including the appendices. Copies are on file at the office of the public service commission, the secretary of state and the revisor of statutes.

(4) All gas public utilities and gas pipeline operators shall file with the public service commission a copy of the manual of written procedures for conducting operations and maintenance activities and for emergency response required under 49 CFR

192.605(a). Each change in the manual shall be filed with the commission within 20 days after the change is made.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

## Subchapter II — Additions to 49 CFR Part 192

### **PSC 135.053 General additions [49 CFR 192.53].**

(1) After 49 CFR 192.53(a), insert:

(aw) Some of the materials conforming to specifications approved for use under 49 CFR 192 may not have properties suitable for the lower portion of the temperature band covered by 49 CFR 192. Operators are cautioned to give attention to the low-temperature properties of the materials used for facilities to be exposed to unusually low ground temperatures or low atmospheric temperatures. Twenty inch steel pipe and larger, with a specified minimum yield strength of 52,000 p.s.i. or higher, shall be tested for fracture toughness in accordance with the applicable section of respective API standard under which it was produced, except for small lot purchases of pipe where testing for fracture toughness is impractical.

(2) After 49 CFR 192.53(c) insert:

(dw) When substantial quantities of pipe are acquired certified reports of chemical composition and physical properties shall be obtained; when the quantity of pipe involved is so limited that this requirement would be impractical, a certified statement shall be obtained setting forth the specification under which the pipe was manufactured.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

### **PSC 135.055 Steel pipe addition [49 CFR 192.55].**

After 49 CFR 192.55(e), insert:

(fw) Pipe manufactured from steel made by the Bessemer process shall not be used.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

### **PSC 135.125 Design of copper pipe addition [49 CFR 192.125].** After 49 CFR 192.125(d), insert:

(ew) Fittings in copper piping. Fittings in copper piping and exposed to the soil, such as service tees and pressure control fittings, shall be made of bronze, copper or brass.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

### **PSC 135.163 Compressor stations: design and construction additions [49 CFR 192.163].** (1) After 49 CFR 192.163(b), insert:

(bw) All compressor station buildings shall be constructed of non-combustible materials as defined under s. Comm 51.01 (86).

(2) After 49 CFR 192.163(c), insert:

(cw) Exits shall be provided in compliance with the requirements of the state building code, chs. Comm 50 to 64. Ladders shall not be used for exits.

(3) After 49 CFR 192.163(e), insert:

(ew) All electrical equipment and wiring installed in gas transmission and distribution compressor stations shall conform to the requirements of the state electrical code, chs. Comm 16 and PSC 114.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

### **PSC 135.171 Compressor stations: additional safety equipment addition [49 CFR 192.171].** After 49 CFR 192.171(a), insert:

(aw) Fire protection. Fire-protection facilities shall be provided as specifically directed by the department of commerce and the local fire department. The operation of fire-protection facilities, such as pumps, shall not be affected by an emergency shutdown.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

### **PSC 135.173 Compressor stations: ventilation addition [49 CFR 192.173].** After the text in 49 CFR 192.173, insert:

(1w) There shall be compliance with the state heating, ventilation, and air conditioning code, ch. Comm 64.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.181 Distribution line valves addition [49 CFR 192.181].** After 49 CFR 192.181(b), insert:

(bw) The distance between the valve and the regulator or regulators shall be sufficient to permit the operation of the valve during an emergency such as a large gas leak or a fire in the station. These valves shall be in accessible locations neither closer than 25 feet nor more than 1,500 feet distant from each regulator station.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.183 Vaults: structural design requirements additions [49 CFR 192.183].** After 49 CFR 192.183(c), insert:

(dw) In the design of vaults and pits for pressure limiting, pressure relieving and pressure regulating equipment, the installed equipment shall be protected from damage, such as that resulting from an explosion within the vault or pit, which may cause portions of the roof or cover to fall into the vault.

(ew) Vault or pit openings shall be located so as to minimize the hazards of tools or other objects falling upon the regulator, piping, or other equipment. The control piping and the operating parts of the equipment installed shall not be located under a vault or pit opening where workers can step on them when entering or leaving the vault or pit, unless such parts are suitably protected. Whenever a vault or pit opening is to be located above equipment which could be damaged by a falling cover, a circular cover should be installed or other suitable precautions taken.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.187 Vaults: sealing, venting, and ventilation addition [49 CFR 192.187].** After 49 CFR 192.187(a)(3), insert:

(4w) The outside end of the ducts shall be equipped with a suitable weatherproof fitting or vent-head designed to prevent foreign matter from entering or obstructing the duct. The effective area of the openings in such fittings or vent-heads shall be at least equal to the cross-sectional area of a 4-inch duct. The horizontal section of the ducts shall be as short as practical and shall be pitched to prevent the accumulation of liquids in the line. The number of bends and offsets shall be reduced to a minimum and provisions shall be incorporated to facilitate the periodic cleaning of the ducts.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.189 Vaults: drainage and waterproofing additions [49 CFR 192.189].** (1) After 49 CFR 192.189(a), insert:

(aw) Nevertheless, vault equipment shall always be designed to operate safely, if submerged.

(2) After 49 CFR 192.189(c), insert:

(cw) Electrical equipment in vaults shall conform to the applicable requirements of the state electrical code, chs. Comm 16 and PSC 114.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.195 Protection against accidental overpressuring additions [49 CFR 192.195].** After 49 CFR 192.195(b)(2), insert:

(3w) Suitable types of protective devices to prevent overpressuring of high-pressure distribution systems include:

(i) Spring-loaded relief valves of types meeting the provisions of the ASME Unfired Pressure Vessel Code.

(ii) Pilot-loaded back-pressure regulators used as relief valves, so designed that failure of the pilot system or control lines will cause the regulator to open.

(iii) Spring loaded diaphragm-type relief valves.

(iv) A monitoring regulator installed in series with the primary pressure regulator.

(v) A series regulator installed upstream from the primary regulator, and set to continuously limit the pressure on the inlet of the primary regulator in accordance with the provisions of 49 CFR 192.201.

(vi) An automatic shut-off device installed in series with the primary pressure regulator, and set to shut off in accordance with the provisions of 49 CFR 192.201. This device shall remain closed until manually reset. It may not be used where it might cause an interruption in service to a large number of customers.

(4w) Suitable types of protective devices to prevent overpressuring of low-pressure distribution systems include:

(i) A liquid seal relief device that can be set to open accurately and consistently at the desired pressure.

(ii) A series regulator, as described in s. PSC 135.211(3w)(v).

(iii) An automatic shut-off device, as described in s. PSC 135.211(3w)(vi).

(iv) A pilot loaded back-pressure regulator, as described in s. PSC 135.211(3w)(ii).

(v) A monitoring regulator, as described in s. PSC 135.211(3)(iv).

(cw) Suitable types of protective devices to prevent overpressuring of gas pressure holders, pipelines and other facilities that might at times be bottle tight include:

(1) Spring-loaded relief valves of types meeting the provisions of the ASME Unfired Pressure Vessel Code.

(2) Pilot-loaded back-pressure regulators used as relief valves, so designed that failure of the pilot system or control lines will cause the regulator to open.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.197 Control of the pressure of gas delivered from high-pressure distribution systems additions [49 CFR 192.197].** After 49 CFR 192.197(c), insert:

(dw) The service regulator shall be of a type that is capable under normal operating conditions of regulating the downstream pressure within the limits of s. PSC 134.23 and of limiting the build-up of pressure under no-flow conditions to 50 percent or less of the discharge pressure maintained under flow conditions.

(ew) In addition to the provisions of 49 CFR 192.197(a) and (b), if the maximum actual operating pressure of the distribution system is greater than low pressure and is equal to or less than 60 p.s.i.g., a suitable protective device shall be installed to prevent unsafe overpressuring of the customer's appliances should the service regulator fail. These devices may be installed as an integral part of the service regulator or as a separate unit. Some of the suitable types of protective devices to prevent overpressuring of customers' appliances are:

(1) A monitoring regulator.

(2) A relief valve.

(3) An automatic shut-off device.

(fw) Breather vents shall be provided on all service regulators.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.199 Requirements for design of pressure relief and limiting devices additions [49 CFR 192.199].** (1) After 49 CFR 192.199(e), insert:

(ew) In addition, the outlet ports shall be insect-proof and consideration shall be given to all exposures in the immediate vicinity including windows or locations where gas can enter confined areas;

(2) After 49 CFR 192.199(h), insert:

(hw) Acceptable methods for complying with 49 CFR 192.199(h) are:

(1) Lock the stop valve in the open position. Instruct authorized personnel of the importance of not inadvertently leaving the stop valve closed and of being present during the entire period that the stop valve is closed so that they can lock it in the open position before they leave the location.

(2) Install duplicate relief valves, each having adequate capacity by itself to protect the system and arrange the isolating valves



or 3-way valve so that mechanically it is possible to render only one safety device inoperative at a time.

(iw) Precautions shall be taken to prevent unauthorized operation of any valve which will make pressure limiting devices inoperative. This provision applies to isolating valves, by-pass valves, and valves on control or float lines which are located between the pressure limiting device and the system which the device protects. A method similar to s. PSC 135.213(2)(hw), shall be considered acceptable in complying with this provision.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.204 Addition [49 CFR 192.204w].** After 49 CFR 192.203, insert:

**192.204w Pipelines on private right-of-way of electric transmission lines.** Where gas pipelines parallel overhead electric transmission lines on the same right-of-way, the company operating the pipelines shall take the following precautions:

(a) Employ blow-down connections and relief valve vents that will direct the gas away from the electric conductors.

(b) Make a study in collaboration with the electric company on the common problems of corrosion and electrolysis, taking the following factors into consideration:

(1) The possibility of the pipeline carrying either unbalanced line currents or fault currents.

(2) The possibility of lightning or fault currents inducing voltages sufficient to puncture pipe coatings or pipe.

(3) Cathodic protection of the pipeline, including location of ground beds, especially if the electric line is carried on steel towers.

(4) Bonding connections between the pipeline and either the steel tower footings or the buried ground facilities or the ground-wire of the overhead electric system.

(c) Investigate the necessity of protecting insulating joints in the pipeline against induced voltages or currents resulting from lightning strokes. Such protection can be obtained by connecting buried sacrificial anodes to the pipe near the insulating joints or by bridging the pipeline insulator with a spark-gap or by other effective means.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.246 Addition [49 CFR 192.246w].** After 49 CFR 192.245, insert:

**PSC 192.246w Precautions to Avoid Explosions of Gas-Air Mixtures or Uncontrolled Fires During Construction Operations.** (a) Operations such as gas or electric welding and cutting with cutting torches can be safely performed on pipelines and mains and auxiliary equipment, provided that they are completely full of gas, or air that is free from combustible material. Steps shall be taken to prevent a mixture of gas and air at all points where such operations are to be performed.

(b) When a pipeline or main can be kept full of gas during a welding or cutting operation, the following procedures are recommended:

(1) Keep a slight flow of gas moving toward the point where cutting or welding is being done.

(2) The gas pressure at the site of the work shall be controlled by suitable means.

(3) Close all slots or open ends immediately after they are cut with tape, or with tape and tightly fitting canvas or other suitable material.

(4) Two openings may not remain uncovered at the same time.

(c) No welding or acetylene cutting shall be done on a pipeline, main, or auxiliary apparatus that contains air if it is connected to a source of gas, unless a suitable means has been provided to prevent the leakage of gas into the pipeline or mains.

(d) In situations where welding or cutting must be done on facilities which are filled with air and connected to a source of gas and the precautions in par. (b) cannot be taken, one or more of the following precautions, depending upon the circumstances at the job are required:

(1) Purging of the pipe or equipment upon which welding or cutting is to be done, with combustible gas or inert gas.

(2) Testing of the atmosphere in the vicinity of the zone to be heated before the work is started and at intervals as the work progresses, with a combustible gas indicator or by other suitable means.

(3) Careful verification before the work starts that the valves that isolate the work from a source of gas do not leak.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.279 Copper pipe addition [49 CFR 192.279].** After the text in 49 CFR 192.279, insert:

(1w) Copper pipe shall be joined by using either a compression type coupling or a brazed or soldered lap joint. The filler material used for brazing shall be a copper-phosphorous alloy or silver base alloy. Butt welds are not permissible for joining copper pipe or tubing.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.307 Inspection of materials addition [49 CFR 192.307].** After the text in 49 CFR 192.307, insert:

(1w) Detection of gouges and grooves. The field inspection provided on each job shall be suitable to reduce to an acceptable minimum the chances that gouged or grooved pipe will get into the finished transmission line or main. Inspection for this purpose just ahead of the coating operation and during the lowering in and backfill operation is required.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.309 Repair of steel pipe addition [49 CFR 192.309].** After 49 CFR 192.309(e), insert:

(fw) Due primarily to climate conditions, gouges, grooves, notches, and dents have been found to be an important cause of steel pipe failures and an attempt shall be made to prevent or eliminate harmful defects of this nature. Section 192.309 (b) pertains to transmission lines and mains intended to operate at hoop stresses of 20% or 40% or more of the specified minimum yield strength. However, applicable portions of these paragraphs shall apply to facilities intended to operate below this hoop stress level.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.319 Installation of pipe in a ditch additions [49 CFR 192.319].** (1) After 49 CFR 192.319(a), insert:

(aw) This includes grading the ditch so that the pipe has a firm, substantially continuous bearing on the bottom of the ditch. When long sections of pipe that have been welded alongside the ditch are lowered in, care shall be exercised so as not to jerk the pipe or impose any strains that may kink or put a permanent bend in the pipe.

(2) After 49 CFR 192.319(b)(2), insert:

(3w) If there are large rocks in the material to be used for backfill, care should be used to prevent damage to the coating or pipe by such means as the use of rock shield material, or by making the initial fill with rock free material to a sufficient depth over the pipe to prevent damage.

(4w) Where flooding of the trench is done to consolidate the backfill, care shall be exercised to see that the pipe is not floated from its firm bearing on the trench bottom.

(3) After 49 CFR 192.319(c), insert:

(cw) The provisions of 49 CFR 192.319(a) shall also apply to mains operating at less than 20% of the SMYS.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.321 Installation of plastic pipe additions [49 CFR 192.321].** After 49 CFR 192.321(f), insert:

(fw) The casing pipe shall be reamed and cleaned to the extent necessary to remove any sharp edges, projections, or abrasive material which could damage the plastic during and after insertion. That portion of the plastic piping which spans disturbed earth shall be adequately protected by a bridging piece or other means from crushing or shearing from external loading or settling of backfill. Care shall be taken to prevent the plastic piping from bearing on the end of the casing.

(gw) Care shall be exercised to avoid rough handling of plastic pipe and tubing. It shall not be pushed or pulled over sharp projections, dropped or have other objects dropped upon it. Caution shall be taken to prevent kinking or buckling, and any kinks or buckles which occur shall be removed by cutting out as a cylinder.

(hw) Changes in direction of plastic piping may be made with bends, tees or elbows under the following limitations:

(1) Plastic pipe and tubing may be deflected to a radius not less than the minimum recommended by the manufacturer for the kind, type, grade, wall thickness and diameter of the particular plastic used.

(2) The bends shall be free of buckles, cracks, or other evidence of damage.

(3) Changes in direction that cannot be made in accordance with s. PSC 135.321, 192.32 (hw)(1), shall be made with elbow-type fittings.

(4) Miter bends are not permitted.

(iw) Plastic piping shall be laid on undisturbed or well compacted soil. If plastic piping is to be laid in soils which may damage it, the piping shall be protected by suitable rock free materials before back-filling is completed. Plastic piping shall not be supported by blocking. Well tampered earth or other continuous support shall be used.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.323 Casing addition [49 CFR 192.323].**

After 49 CFR 192.323(d), insert:

(ew) Casing requirements of highway authorities shall be followed; however, construction type shall not be any less than provided by 49 CFR 192.323.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.324 Addition [49 CFR 192.324w].** After 49 CFR 192.323, insert:

**PSC 192.324w Rail Crossings.** Whenever a steel pipeline is installed under a railroad track and a casing is not used, the operator shall install the pipeline using the methods prescribed in Gas Research Institute report number GRI-91/0285, entitled "Guidelines for Pipelines Crossing Railroads and Highways."

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.325 Underground clearance addition [49 CFR 192.325].** After 49 CFR 192.325(b), insert:

(bw) No distribution main or transmission line shall be installed under buildings.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.355 Customer meters and regulators: protection from damage additions [49 CFR 192.355].** (1) After 49 CFR 192.355(a), insert:

(aw) Install a check valve or equivalent if any of the following apply:

(1) The utilization equipment might induce a back-pressure.

(2) The gas utilization equipment is connected to a source of oxygen or compressed air.

(3) Liquefied petroleum gas or other supplementary gas is used as standby and might flow back into the meter. A three-way valve installed to admit the standby supply and at the same time shut off the regular supply, can be substituted for a check valve if desired.

(2) After 49 CFR 192.355(b)(3), insert:

(4w) At locations where service regulators might be submerged during floods, either a special anti-flood type breather vent fitting shall be installed, or the vent line shall be extended above the height of the expected flood waters.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.365 Service lines: location of valves addition [49 CFR 192.365].** After 49 CFR 192.365(b), insert:

(bw) Whenever gas is supplied to a theater, church, school, factory or other building where large numbers of persons assemble, an outside valve in such case will be required.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.371 Service lines: steel addition [49 CFR 192.371].** After the text in 49 CFR 192.371, insert:

(aw) When coated steel pipe is to be installed as a service line in a bore, care should be exercised to prevent damage to the coating during installation. For all installations to be made by boring, driving or similar methods or in a rocky type soil, the following practices or their equivalents shall be followed:

(1) When a service line is to be installed by boring or driving and a coated steel pipe is to be used for the service line, the coated pipe may not be used as the bore pipe or drive pipe and left in the ground as part of the service line. Such installations shall be made by first making an oversize bore, removing the pipe used for boring and then inserting the coated pipe.

(2) Coated steel pipe may not be inserted through a bore in exceptionally rocky soil where there is a likelihood of damage to the coating resulting from the insertion.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.375 Service lines: plastic addition [49 CFR 192.375].** After 49 CFR 192.375(b), insert:

(cw) Plastic service lines that are not encased shall either be installed with an electrically conductive wire having adequate corrosion resistant characteristics or protection or some other acceptable means of readily locating the buried service pipe from the ground surface shall be provided.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.377 Service lines: copper additions [49 CFR 192.377].** After the text in 49 CFR 192.377, insert:

(aw) Copper service lines installed within a building may not be concealed.

(bw) Ferrous valves and fittings installed on underground copper service lines shall be protected from contact with the soil or insulated from the copper pipe.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.457 External corrosion control: buried or submerged pipelines installed before August 1, 1971 addition [49 CFR 192.457].** After 49 CFR 192.457(c), insert:

(dw) Notwithstanding the provisions of 49 CFR 192.457(b) regarding active corrosion, effectively coated steel distribution pipelines, except for those portions including services and short sections that because of their nature and installation make cathodic protection impractical and uneconomical, shall be cathodically protected along the entire area that is effectively coated in accordance with this subpart.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.505 Strength test requirements for steel pipeline to operate at a hoop stress of 30 percent or more of SMYS addition [49 CFR 192.505].** After 49 CFR 192.505(e), insert:

(fw) Except in freezing weather or when water is not available, pipelines or mains larger than 6 inches in diameter, installed in class locations 1, 2, or 3, shall be hydrostatically tested in place to at least 90 percent of the specified minimum yield strength.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.511 Test requirements for service lines addition [49 CFR 192.511].** After 49 CFR 192.511(c), insert:

(dw) Each segment of a service line, other than plastic, intended to be operated at a pressure between 0 and 1 p.s.i.g. shall be given a leak test at a pressure of not less than 50 p.s.i.g.

History: Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.613 Continuing surveillance additions [49 CFR 192.613].** After 49 CFR 192.613(b), insert:

(cw) When street is paved or repaved. Whenever a road or street is paved or repaved with permanent pavement, the operator shall do all of the following:

(1) Check for leaks along all mains and services in the streets and abutting property with a continuous-sampling instrument

capable of detecting combustible gas in air concentrations of 100 parts per million.

(2) Determine condition of pipe and joints by sample visual examination, where possible.

(3) Repair any leaks found.

(4) Replace pipe if existing pipe is corroded to such an extent that it is likely to require replacement before the street is again resurfaced.

(dw) Underground pipes. Whenever underground pipes are exposed in order to repair leaks, the utility shall record on the repair order the nature of the leak and possible cause from observation.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.614 Damage prevention program addition [49 CFR 192.614].** After 49 CFR 192.614(c), insert:

(dw) All operators of natural gas pipelines shall be a member of a single, state-wide one-call system. If there is more than one state-wide one-call system, the public service commission may determine which system the operators will join.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.621 Maximum allowable operating pressure: high-pressure distribution systems additions [49 CFR 192.621].** (1) After 49 CFR 192.621(a)(3), insert:

(3w) No person may operate a segment of a cast iron pipe in which there are unreinforced bell and spigot joints at a pressure higher than low pressure unless it can be proven to the commission that they can be operated at a higher pressure. However, the maximum allowable operating pressure under any circumstances shall not exceed 15 p.s.i.g. Except for maintenance of existing mains, no new cast iron may be installed after November 1, 1999.

(2) After 49 CFR 192.621(b), insert:

(cw) Sixty p.s.i.g. in individual distribution systems or portions of a system. The intercity or supply mains for these distribution systems may be operated at pressures higher than 60 p.s.i.g. if the number of services supplied from these mains are limited and these mains are not an integral part of the distribution system. The pressure and the services supplied from these higher pressure intercity and supply mains shall be limited to 60 p.s.i.g. unless the service lines are equipped with series regulators or other pressure limiting devices as prescribed in 49 CFR 192.197(c).

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.623 Maximum allowable operating pressure: low-pressure distribution systems addition [49 CFR 192.623].** After 49 CFR 192.623(b), insert:

(cw) No person may operate a low pressure distribution system at a pressure in excess of that provided by s. PSC 134.23(1).

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.629 Purging of pipelines addition [49 CFR 192.629].** After 49 CFR 192.629(b), insert:

(cw) No pipeline, main, or service shall be purged into any building or confined space.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.707 Line markers for mains and transmission lines addition [49 CFR 192.707].** After 49 CFR 192.707(d), insert:

(ew) When transmission lines are located outside urban areas, their location shall be marked, recognizable to the public, at each fence line, road crossing, railroad crossing, river, lake, stream, or drainage ditch crossing and wherever it is considered necessary to identify the location of a pipeline to reduce the possibility of damage or interference.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.713 Transmission lines: permanent field repair of imperfections and damages addition [49 CFR 192.713].** After 49 CFR 192.713(a)(3), insert:

(4w) Gouges and grooves of lesser depth than 10% of the nominal wall thickness of the pipe may be removed by grinding out to a smooth contour provided the grinding does not reduce the remaining wall thickness to less than the minimum prescribed by 49 CFR 192 for the conditions of use.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.720 Addition [49 CFR 192.720w].** After 49 CFR 192.719, insert:

**192.720w Repair of Steel Pipe Operating below 40 Percent of the Specified Minimum Yield Strength.** If inspections at any time reveal an injurious defect, gouge, groove, dent, or leak, immediate temporary measures shall be employed to protect the property and public if it is not feasible to make permanent repair at time of discovery. As soon as feasible, permanent repairs shall be made using recognized methods of repair.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.722 Addition [49 CFR 192.722w].** After 49 CFR 192.721, insert:

**192.722w Distribution Mains: Markers.** When distribution mains are located outside urban areas, their location shall be marked, recognizable to the public, at each fence line, road crossing, railroad crossing, river, lake, stream, or drainage ditch crossing and wherever it is considered necessary to identify the location of a pipeline to reduce the possibility of damage or interference.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.723 Distribution systems: leakage surveys additions [49 CFR 192.723].** After 49 CFR 192.723(b), insert:

(cw) Every operator shall maintain a gas leak-detection program and shall maintain records of operation under the program. The program shall consist of not less than the following:

(1) In addition to 49 CFR 192.723(b)(1), an additional leakage survey with a leak detection device shall be conducted over street openings in business districts, as shown by maps filed with the public service commission by each utility, at intervals not exceeding 15 months, but at least once each calendar year and not more [less] than 4 ½ months before or after the survey required under 49 CFR 192.723(b)(1).

(2) In each business district, a building survey shall be conducted at intervals not exceeding 15 months, but at least once each calendar year. The piping from the service entrance to the meter outlet and metering and regulating equipment shall be tested for gas leakage in those buildings that have gas service.

(3) A survey of all buildings used for public gatherings, such as schools, churches, hospitals, and theaters, shall be conducted at intervals not exceeding 15 months, but at least once each calendar year. The piping from the service entrance to the meter outlet and metering and regulating equipment shall be tested for gas leakage.

(4) In incorporated cities and villages, in addition to a survey of public buildings, the operator shall conduct a leak survey of all mains using a continuous-sampling instrument capable of detecting and measuring combustible gas in air concentrations of 100 parts per million. The utility may substitute for the test required by this provision a survey by mobile flame ionization or infrared gas detection units. The tests required by this provision shall be made at intervals not exceeding 15 months, but at least once each calendar year.

(5) Along all mains in unincorporated areas, a leakage survey with leak detection equipment shall be conducted at least once every 2 calendar years at intervals not exceeding 27 months.

(6) A leakage survey of all services conducted with an acceptable leak detection device shall be made at intervals not exceeding five years.

(7) When a leak complaint is received and the odor of gas indicates that there is a leak in or near the premises, a search shall be carried to conclusion until the leak is found.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.



**PSC 135.724 Addition [49 CFR 192.724w].** After 49 CFR 192.723, insert:

**PSC 192.724w Further leakage survey after repair of leak.** When a leak is found and repaired, a further check shall be made in the vicinity of the repaired leak to determine if there is any other source of migrant gas in the neighborhood.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.727 Abandonment or deactivation of facilities addition [49 CFR 192.727].** After 49 CFR 192.727(f), insert:

(gw) Special efforts shall be made to include services which have not been used for ten years in a way that will remove gas from the customers' premises. The plan shall include all of the following provisions:

(1) If the facilities are abandoned in place, they shall be physically disconnected from the main at the service tee. The open ends of all abandoned facilities shall be capped, plugged, or otherwise effectively sealed.

(2) In cases where a main is abandoned, together with the service lines connected to it, insofar as service lines are concerned, only the customers' end of such service lines need be sealed.

(3) Until the time a service is abandoned, it shall be treated as active for purposes of applying the regulations of 49 CFR 192. If a service line is not treated as an active line, it shall be physically disconnected at the main and purged, no later than 2 years after becoming inactive.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.735 Compressor stations: storage of combustible materials addition [49 CFR 192.735].** After 49 CFR 192.735(b), insert:

(cw) All aboveground oil or gasoline storage tanks shall be constructed and protected in accordance with ch. Comm 10.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.741 Pressure limiting and regulating stations: telemetering or recording gauges addition [49 CFR 192.741].** After 49 CFR 192.741(c), insert:

(dw) Each low pressure distribution system shall be equipped with telemetering or recording pressure gage or gages as may be required to properly indicate the gas pressure in the system at all times. At least once each year the pressure variation shall be determined throughout each system.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.744 Addition [49 CFR 192.744w].** After 49 CFR 192.743, insert:

**PSC 192.744w Service regulators and associated safety devices: inspection and testing.** Service regulators and associated safety devices on customers' premises shall be inspected and tested periodically to determine whether they are in proper operating condition. This shall include testing of the set pressure of the regulator at a specific flow rate, determination of the lock-up pressure, and determination as to whether there are any leaks, internal or external, associated with the regulator. The test interval shall be the same as the interval between meter changes in the meter rotation program under s. PSC 134.30.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.747 Valve maintenance: distribution systems addition [49 CFR 192.747].** After the text in 49 CFR 192.747, insert:

(aw) Inspection shall include checking of alignment to permit use of a key or wrench and clearing from the valve box or vault any debris which would interfere or delay the operation of the valve. Records shall be maintained to show specific valve location and such records shall be made continuously accessible to authorized personnel for use under emergency conditions.

(bw) Existing connections in the form of inline valves between low pressure gas distribution systems and high pressure gas distribution systems shall be physically severed by January 1, 1974.

(cw) The by-pass valves in district regulator stations supplying gas to a low pressure distribution system shall be sealed, locked or otherwise be rendered incapable of operation, except by authorized personnel.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.751 Prevention of accidental ignition addition [49 CFR 192.751].** After 49 CFR 192.751(c), insert:

(dw) Whenever the accidental ignition in the open air of gas-air mixture might be likely to cause personal injury or property damage, precautions shall be taken, including all of the following:

(1) Prohibit smoking and open flames in the area.

(2) Install a metallic bond around the location of cuts in gas pipes to be made by other means than cutting torches.

(3) Take precautions to prevent static electricity sparks.

(4) Provide fire extinguishers of appropriate size and type.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.

**PSC 135.753 Caulked bell and spigot joints addition [49 CFR 192.753].** After 49 CFR 192.753(b), insert:

(cw) Existing unreinforced bell and spigot jointed cast iron pipe shall be operated at low pressure unless it can be proved to the public service commission that it can be satisfactorily operated at a higher pressure. However, the operating pressure under any circumstances shall not exceed 15 p.s.i.g.

**History:** Cr. Register, October, 1999, No. 526, eff. 11-1-99.