

NATURAL GAS SAFETY RULES OF THE FLORIDA PUBLIC SERVICE COMMISSION

CHAPTER 25-12

Florida Administrative Code

Updated 8-9-2022

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SAFETY OF GAS TRANSPORTATION BY PIPELINE



Bureau of Safety

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Florida Public Service Commission website:

<http://www.psc.state.fl.us/>

Rules location:

<https://www.flrules.org/gateway/ChapterHome.asp?Chapter=25-12>

Federal Regulations:

<https://www.phmsa.dot.gov/phmsa-regulations>

Sunshine State One Call:

<https://www.sunshine811.com>

Florida One Call Law Statute 556:

http://www.leg.state.fl.us/statutes/index.cfm?App_mode=Display_Statute&URL=0500-0599/0556/0556ContentsIndex.html

Table of Contents

25-12.004 Definitions.....	1
25-12.005 Codes and Standards Adopted	2
25-12.007 Commission Compliance Evaluations	2
25-12.008 New, Reconstructed or Converted Facilities	3
25-12.009 Safety.....	4
25-12.020 Construction Specifications and Inspections.....	4
25-12.021 Use of Plastic Pipe	4
25-12.022 Requirements for Distribution System Valves.....	5
25-12.024 Prohibition of Pipelines Under Buildings.....	6
25-12.027 Welder Qualification.....	6
25-12.028 Marking of Materials.....	6
25-12.029 Limiting Use of Pipeline Casings	7
25-12.030 Construction Inspection.....	7
25-12.040 Leak Surveys, Procedures and Classification	7
25-12.041 Receiving of Gas Leak and Emergency Reports.....	8
25-12.042 Investigation of Gas Leak Reports.....	9
25-12.043 Gas Service	9
25-12.044 Interruption of Gas Service.....	9
25-12.045 Inactive Gas Service Lines.....	9
25-12.046 Unauthorized Utilization of Gas Facilities	10
25-12.050 Facility Identification.....	11
25-12.052 Criteria for Cathodic Protection.....	11
25-12.053 Cathodic Protection - Electrical Survey	12
25-12.054 Cathodic Protection - Location of Reference Half-Cell.....	13
25-12.055 Odorization of Gas.....	13
25-12.060 General Records.....	13
25-12.061 System Maps.....	13
25-12.062 Leak Reports	14
25-12.080 General.....	14
25-12.082 Construction Notice	14
25-12.083 Requalifying Maximum Allowable Operating Pressure	15
25-12.084 Notice of Accidents and Outages.....	15
25-12.085 Written Annual Reports Required	15
25-12.0861 Response to Commission Staff Inquiries	16
The American Public Works Association (APWA) Uniform Color Codes.....	17
Energy Source Equivalency.....	18
Natural Gas General Information	19

25-12.004 Definitions.

Definitions contained in codes or standards adopted by these rules are applicable to the rules and the adopted codes or standards with the following exceptions:

(1) “Commission”. Unless a different intent clearly appears from the context, the word “Commission” shall mean the Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, 850-413-6770.

(2) “Utility” or “Operator”. Except where a different meaning clearly appears from the context, the word “Utility” or “Operator” shall be every person, corporation, partnership, association, public agency, municipality, cooperative gas district or other legal entity and their lessees, trustees, or receivers, now or hereafter owning, operating, managing or controlling any gas transmission or distribution facility transporting gas as defined herein and not specifically exempt from state jurisdiction by the Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006 (PIPES Act), Pub. L. 109-468 (codified as amended at 49 U.S.C. §60101 (2006)).

(3) “Gas”. Gas as used herein shall mean natural, manufactured, liquefied petroleum gas with air admixture, or any similar gaseous substances, but shall not include liquefied petroleum gas in either the liquid or gaseous form except when stored or used for peak shaving or standby fuels in conjunction with an operator’s system.

(4) “Inspector”. The term “Inspector” shall apply to a person designated by the utility vested with the authority to initiate action to assure compliance with the adopted codes.

(5) “Distribution System”. As used in these rules shall mean any group of interconnected pipe and facilities operating at a hoop stress of less than 20 percent specified minimum yield strength which transports gas from a common source of supply or storage facility to a customer.

(6) “Low Pressure Distribution System” is a gas distribution piping system or portion thereof which supplies gas to more than 10 customers through a common pressure reducing device(s) at a pressure substantially the same as the pressure provided to the customer.

(7) “Fusion” means the union of two plastic surfaces that have been heated, or have had solvents applied, sufficiently to melt and fuse them together.

(8) “Gas Meter” means an instrument manufactured primarily for use in measuring, and indicating or recording the measurement of, the volume of gas that has moved through the instrument.

(9) “Master Meter System” means a pipe system that receives gas through a gas meter and transports that gas to or for the public, with the gas being delivered through another gas meter prior to consumption.

(10) “Pipeline” means all parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenances attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. “Pipeline,” for the purposes of these rules, unless stated otherwise, includes mains and service lines.

(11) “Main” means a distribution pipeline that serves as a common source of supply for more than one service line.

(12) “Service line” means a distribution pipeline that transports gas from a common source of supply to a gas meter prior to consumption.

(13) “Weld” means the union of metals which have been heated sufficiently to melt and

fuse them together.

Rulemaking Authority 368.05(2) FS. Law Implemented 368.03 FS. History–New 6-24-67, Amended 3-7-70, 11-14-70, 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.04, Amended 1-7-92, 12-15-09.

25-12.005 Codes and Standards Adopted.

The reporting requirements for pipeline facilities and transportation of gas prescribed by the Pipeline and Hazardous Materials Safety Administration in 49 C.F.R. 191 (October 1, 2018) is adopted and incorporated by reference as part of these rules and may be accessed at <http://www.flrules.org/Gateway/reference.asp?No=Ref-07920>. The Minimum Federal Safety Standards for pipeline facilities and transportation of gas prescribed by the Pipeline and Hazardous Materials Safety Administration 49 C.F.R. Sections 192.121, 192.123, 192.143, 192.145, 192.149, 192.191, 192.204, 192.281, 192.283, 192.285, 192.3, 192.313, 192.321, 192.329, 192.367, 192.375, 192.376, 192.455, 192.513, 192.59, 192.720, 192.756, of 49 C.F.R. 192, as amended by 83 Federal Register 58716, November 20, 2018, are adopted and incorporated by reference as part of these rules and may be accessed at <http://www.flrules.org/Gateway/reference.asp?No=Ref-10792>. The remaining sections of 49 C.F.R. 192, as of October 1, 2018, are adopted and incorporated by reference as part of these rules and may be accessed at <http://www.flrules.org/Gateway/reference.asp?No=Ref-10794>. 49 C.F.R. 199 (October 1, 2018), “Drug and Alcohol Testing,” is adopted and incorporated by reference as part of these rules and to control drug use, by setting standards and requirements to apply to the testing and use of all emergency response personnel under the direct authority or control of a gas utility or pipeline operator, as well as all employees directly or indirectly employed by gas pipeline operators for the purpose of operation and maintenance and all employees directly or indirectly employed by intrastate gas distribution utilities for onsite construction of natural gas transporting pipeline facilities. 49 C.F.R. 199 (October 1, 2018) may be accessed at <http://www.flrules.org/Gateway/reference.asp?No=Ref-10791>. Part 199 also is adopted to prescribe standards for use of employees who do not meet the requirements of the regulations.

Rulemaking Authority 368.03, 368.05(2), 350.127(2) FS. Law Implemented 368.03, 368.05 FS. History–New 11-14-70, Amended 9-24-71, Revised 9-21-74, Amended 10-7-75, 11-30-82, 10-2-84, Formerly 25-12.05, Amended 8-8-89, 1-7-92, 5-13-99, 4-26-01, 12-15-09, 10-11-12, 3-2-17, 7-10-19.

25-12.007 Commission Compliance Evaluations.

(1) The Commission or its authorized representatives shall be granted access to all installations or construction projects at any and all reasonable times and shall be given access to any records or information related to or arising from compliance with these rules or the adopted regulations, standards, or codes.

(2) The Commission’s Division of Regulatory Compliance and Consumer Assistance or its authorized representative has the authority to require prudent and reasonable tests to be made by the operator to insure public safety and compliance with the Commission’s rules or adopted regulations, standards, or codes.

(3) When the Commission’s compliance evaluations or required tests create an unusual hardship, or the operator believes them to be imprudent and unreasonable, the utility may petition the Commission for a waiver of those requirements for good cause shown.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History–New 6-24-67, Amended 11-14-70, Repealed 10-7-75, Amended 10-2-84, Formerly 25-12.07, Amended 1-7-92.

25-12.008 New, Reconstructed or Converted Facilities.

(1) No new or reconstructed system or portion thereof may be:

(a) Constructed, until written construction specifications complying with these rules are developed.

(b) Placed in service until the pipeline facilities have been inspected and found to comply with the construction specifications and Operating and Maintenance Plans.

(2) Before a piping system can be converted to a regulated gas, the operator must:

(a) Have on file with the Commission a general conversion procedure as a part of its operation and maintenance plan.

(b) File a conversion plan with the Commission for the specific system at least 15 days prior to start of conversion. This plan need not be filed for minor conversions which are scheduled to be completed in one day and where sectionalizing of the system to be converted is not planned.

(c) Have inspections performed of the pipeline to assure that it was constructed in accordance with standards applicable at the time of installation. Visual inspection of the underground facilities will not be required if construction and testing records have been maintained.

(d) Review the operating and maintenance history of the system to be converted. Any areas showing abnormal maintenance requirements shall be replaced, reconditioned or otherwise made safe prior to conversion.

(e) Establish the maximum allowable operating pressure no greater than the highest sustained operating pressure during the 5 years prior to conversion unless it was tested or updated after July 1, 1970 in accordance with the Subparts J or K of 49 C.F.R. 192 (2016) as adopted in Rule 25-12.005, F.A.C.

(f) Make a leak survey over the entire converted system concurrent with the conversion.

(g) Determine areas of active corrosion as required by Subpart I of 49 C.F.R. 192 (2016) and these rules. Required cathodic protection must be accomplished within 1 year after the date of conversion except that buried steel tubing must be protected prior to placing the system into operation.

Rulemaking Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History–New 11-14-70, Revised 9-21-74, Amended 10-7-75, 10-2-84, Formerly 25-12.08, Amended 12-15-09,10-11-12, 3-2-17.

25-12.009 Safety.

(1) Each operator shall establish a continuing education program so as to enable its customers and the public to recognize a gas pipeline emergency for the purpose of reporting it to the operator.

(2) Each operator shall exercise due care to reduce the hazards to which employees, customers and the public may be subjected to by reason of its equipment and facilities.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 6-14-67, Amended 11-14-70, Revised 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.09.

25-12.020 Construction Specifications and Inspections.

(1) Each operator shall formulate comprehensive written construction specifications for all phases of design, installation, testing, repair and inspection in sufficient detail to assure compliance with these rules. All work performed must be in accordance with these specifications.

(2) Field inspections by the operator shall be sufficient to assure the materials used and work performed comply with these rules and the operator's construction specifications.

(3) Inspectors shall be qualified by appropriate training and experience to recognize departures from specifications and shall be given authorization by the operator to initiate action to cause the repair or removal of any component that fails to meet these rules or the operator's construction specifications.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.20, Amended 1-7-92.

25-12.021 Use of Plastic Pipe.

(1) Before using specific types of plastic pipe and fittings, the operator shall:

(a) Establish a joining procedure specification for each kind and type of plastic resin used in forming joints with solvent cement or heat fusion joint.

1. Qualify procedures by ascertaining that assemblies made in accordance with the procedures have been tested. These tests shall be sufficient to prove that the joint is as strong as the pipe, that it is gas tight, and that it can sustain anticipated longitudinal pull.

2. Qualify personnel in accordance with the procedures to prove their ability to make satisfactory joints and repairs. This personnel qualification shall be accomplished by appropriate training and by experience in the use of the procedures and shall be verified by destructive testing of joints made by the personnel.

(b) Establish a joining procedure specification for each kind and type of mechanical fitting.

1. Qualify procedures by ascertaining that assemblies made in accordance with the procedure have been tested. These tests shall be sufficient to prove that the joint is as strong as the pipe, that it is gas tight, and that it can sustain anticipated longitudinal pull or thrust forces.

2. Qualify personnel in accordance with the procedures to prove their ability to make satisfactory joints and repairs. This personnel qualification shall be accomplished by appropriate

training and by experience in the use of the procedures.

(2) Thermosetting plastic pipe may not be used for direct burial without first submitting a proposal for providing protection from external damage to the Commission for review and approval.

(3) All underground plastic pipelines must have an electrically conductive wire or other suitable means to provide positive location. When a wire is used and it is subject to corrosion, it must have an insulating coating.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History--New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.21, Amended 1-7-92.

25-12.022 Requirements for Distribution System Valves.

(1) Valves ahead of regulator stations – A valve shall be installed upstream of each regulator station for use in an emergency to stop the flow of gas. These valves are to be installed at a safe distance from the station, but no more than 500 feet from the regulator station. The distance for the valve location can be greater than 500 feet if physically impractical to install closer.

(2) Sectionalizing valves – Valves shall be spaced within each distribution system to reduce the time to shut-down a segment of the system in an emergency. In determining the spacing of these valves, the following factors shall be evaluated:

(a) Volume and pressure of gas between valves.

(b) Size of area and population density between valves required to isolate the area and the accessibility of the required valves.

(c) The minimum number of personnel required to shutdown and restore the area.

(d) Other means and availability of required equipment to control the flow of gas in the event of an emergency.

(e) The number and type of customers, such as hospitals, schools, commercial and industrial loads that will be affected.

(3) Identification – Emergency or sectionalizing and other critical valves shall be designated on appropriate records, drawings or maps used by the operator and shall be referenced to “permanent” aboveground structures or other field ties so the valves can be readily located. The centerline of the road or highway, property line, or right-of-way may be used as one of the referenced structures. The valve installation and all records showing these valves must be marked for prompt identification using any logical designating system. The valve marking must be accomplished using a durable tag or other equivalent means located as follows:

(a) For aboveground valves or valves located in vaults which have to be operated from within the vault, the marking shall appear on the valve body or hand wheel.

(b) For buried valves or valves operated by a key wrench, the marking shall be legible and may be on any type of permanent material placed in a visible location inside of the curb box or standpipe where the cover will not abrade the marking. Marking the cover only is not acceptable.

(4) Blowdown valve requirements – Where blowdown valves are used to aid the evacuation of gas from segments of mains between isolation valves, these valves must:

(a) Be protected against tampering and mechanical damage from outside forces.

(b) Be designed for safe venting giving consideration to the direction of flow, electric facility locations, proximity of people, etc.

(c) Be readily accessible in the event of an emergency.

(5) All the sectionalizing or emergency valves which may be necessary for the safe operation of the system must be inspected and maintenance performed to assure location, access and operating ability at intervals not exceeding 15 months but at least each calendar year.

Rulemaking Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 9-21-74, Amended 10-7-75, 10-2-84, Formerly 25-12.22, Amended 12-15-09, 3-2-17.

25-12.024 Prohibition of Pipelines Under Buildings.

Where practicable, no portion of an operator's gas pipeline shall be installed under a building nor any portion of a building be allowed to be constructed over a segment of any pipeline. Where this requirement cannot be met, pipelines under buildings shall be encased with necessary sealing and venting provided to assure that any gas leakage which may occur on the portion of the pipeline under or adjacent to the building will be safely contained within the casing or vented to a safe location.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 9-21-74, Repromulgated 10-7-75, Formerly 25-12.24.

25-12.027 Welder Qualification.

(1) No welder shall make any pipeline weld unless the welder has qualified in accordance with Section 6, or Section 12 for automatic welding, of American Petroleum Institute Standard 1104, Welding of Pipelines and Related Facilities, 21st edition, September 2013, incorporated by reference herein, or Appendix C of 49 C.F.R. 192 (2016) as adopted in Rule 25-12.005 F.A.C., within the preceding 15 months, but at least once each calendar year. A copy of API 1104 may be obtained from <http://www.api.org/Standards/>.

(2) No welder shall weld with a particular welding process unless the welder has engaged in welding with that process within the preceding six calendar months. A welder who has not engaged in welding with that process within the preceding six calendar months must requalify for that process as set forth in subsection (1) of this rule.

Rulemaking Authority 350.127(2), 368.03, 368.05(2) FS. Law Implemented 368.03, 368.05 FS. History—New 1-7-92, Amended 12-15-09, 10-11-12, 3-2-17.

25-12.028 Marking of Materials.

(1) Each valve, fitting, length of pipe, or other component must be clearly marked as prescribed in the specification or standard to which it was manufactured.

(2) An operator must obtain prior approval from the Commission's Bureau of Safety in order to make any marking alterations or remarking after acceptance of delivery, except for remarking pipe after coating.

Specific Authority 368.05(2) FS. Law Implemented 368.03 FS. History—New 1-7-92.

25-12.029 Limiting Use of Pipeline Casings.

The installation of casings on metallic pipelines is prohibited unless necessary for the installation process of the pipeline or justifiably required by an appropriate governmental authority.

Specific Authority 368.05(2) FS. Law Implemented 368.03 FS. History—New 1-7-92.

25-12.030 Construction Inspection.

(1) All welds and fusions on a gas pipeline must be inspected prior to installation or use of the pipeline. Such inspections must be performed by a qualified construction inspector, who may be designated or employed by either the utility or the contractor performing the installation. The inspector may be a person performing welding or joining on the gas pipeline.

(2) All gas mains must be inspected prior to installation of the main. Such inspections must be performed by a qualified construction inspector employed or designated by the utility to maintain quality control on the gas main installation project. The qualified construction inspector may be a person performing welding or joining on the gas main project, but may not be employed or designated by the contractor performing the installation. The utility may determine the frequency of such inspections, which must be sufficient in extent and number to insure proper installation and joining.

(3) Randomly selected welds must be subjected to destructive or x-ray testing during construction of any pipeline that is at least two inches in diameter and over five thousand feet in length. At least two welds must be tested from each five thousand feet of the pipeline under construction. The result of the test must be evaluated according to a written procedure which has been established in writing, tested and found to produce joints of a strength that meet or exceed, as a minimum, one of the strength standards listed in the Code of Federal Regulations, Part 192, Appendix B – Qualification of Pipe.

(4) Each operator shall establish and maintain for the life of the system a record of each test and inspection required in subsections (1), (2) and (3) above, and each main tie-in weld when any one pipeline is greater than two inches in diameter. The record shall include as a minimum:

- (a) The name of the person or persons performing the joining;
- (b) The name of the person or persons performing the testing or inspection;
- (c) The size of pipe;
- (d) The type of material;
- (e) The location of construction;
- (f) The date of test or inspection; and
- (g) The defects, if any.

Specific Authority 368.05(2) FS. Law Implemented 368.03 FS. History—New 1-7-92.

25-12.040 Leak Surveys, Procedures and Classification.

(1) Each operator shall perform periodic leakage surveys in accordance with the following schedule:

(a) A gas detector instrument survey shall be conducted at intervals not exceeding 15 months but at least once each calendar year in those portions of an operator's service area,

including:

1. Principal business districts, master meter systems, and places where the public is known to congregate frequently.

2. Where pipeline facilities, including service lines, are located under surfaces of such construction that little opportunity is afforded for a leak to vent safely.

(b) A gas detector instrument survey to locate leaks throughout areas not included in subsection (a) above shall be conducted at intervals not exceeding (3) calendar years at intervals not exceeding 39 months on bare metallic, galvanized steel, coated tubing pipelines, and (5) calendar years at intervals not exceeding 63 months on the remaining pipeline system, or more frequently if experience indicates.

(2) The following leak classification system shall be used on all leak records and reports:

(a) “Grade 1 Leak” – a leak of gas that represents an existing or probable hazard to persons or buildings. In order to protect life and property, these leaks shall be repaired immediately and continuous action shall be taken until conditions are no longer hazardous.

(b) “Grade 2 Leak” – a leak that is not a threat to persons or property at the time of detection, but justifies scheduled repair based on potential future hazard. These leaks shall be repaired within 90 days from the date the leak was originally located, unless due to resurvey the leak was determined to be Grade 3 as defined in subsection (c) below. In determining the time period for repair, the following criteria should be taken into consideration:

1. Amount and migration of gas;
2. Proximity of gas to buildings and subsurface structures;
3. Extent of pavement;
4. Soil type and conditions, such as moisture and natural venting.

(c) “Grade 3 Leak” – a leak that is not a threat to persons and property and is not expected to become so. Above ground grade 3 leaks shall be repaired within 90 days from the date the leak was originally located unless the leak is upgraded or does not produce a positive leak indication when a soap and water solution, or its equivalent, is applied on suspected locations at operating pressure. Grade 3 leaks that are underground shall be reevaluated at least once every 6 months until repaired. The frequency of reevaluation shall be determined by the location and magnitude of the leak.

(3) All the repairs of leaks shall be checked by appropriate methods immediately after the repairs are completed. Where there is residual gas in the ground, a follow-up inspection using a gas detector instrument must be made as soon as the gas has had an opportunity to dissipate, but no later than one month for Grade 1 leaks and 6 months for Grade 2 leaks. The date and status of recheck shall be recorded on the leak repair records.

(4) If residual gas is detected on the follow-up inspection, continued monthly monitoring, not to exceed 45 days, and inspections shall be done until gas is no longer detected.

Rulemaking Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History--New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.40, Amended 1-7-92, 12-15-09, 3-2-17.

25-12.041 Receiving of Gas Leak and Emergency Reports.

Each operator must provide a means of receiving and promptly responding to reported gas

leaks and emergencies on a 24-hour per day basis. The procedure for accomplishing this requirement must be included in the operating and maintenance plan.

Rulemaking Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.41, Amended 12-15-09.

25-12.042 Investigation of Gas Leak Reports.

Gas leaks reported by customers or the general public shall be considered emergencies requiring prompt response with the first priority of protecting life then property. A device capable of detecting the presence of gas shall be used to test the area of the reported leak to determine if a leak actually exists.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.42.

25-12.043 Gas Service.

(1) An operator may decline to provide gas service to a customer or any of the customer's equipment until the customer complies with all applicable gas codes adopted by the local authority having jurisdiction.

(2) No operator shall activate a meter delivering gas into customer piping until ascertaining that a test was conducted ensuring that a constant pressure had been contained by the piping.

Specific Authority 368.05(2) FS. Law Implemented 368.03 FS. History—New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.43, Amended 8-8-89.

25-12.044 Interruption of Gas Service.

At the time gas service is turned off or when the operator becomes aware that the supply of gas to a customer has been interrupted, whether intentionally or unintentionally, a valve on the service line must be either locked in the closed position or the service line plugged to prevent the flow of gas.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.44, Amended 8-8-89.

25-12.045 Inactive Gas Service Lines.

(1) An operator shall take the following actions for inactive gas service lines that have been used, but have become inactive without reuse:

(a) An operator shall take immediate action to protect persons and property if it determines that an inactive service line is an existing or probable hazard to persons or property, and shall retire and physically abandon said line within three months of that determination.

(b) If the operator determines that there is no prospect for reuse, the service line shall be retired and physically abandoned within three months of that determination.

(c) Annual risk assessments shall be made for all service lines that have been inactive for more than one year.

1. The annual risk assessments shall identify potential threats and shall rank risks using the operator's Distribution Integrity Management Plan developed pursuant to 49 C.F.R. 192, Subpart P (2011) which is incorporated by reference in Rule 25-12.005, F.A.C. The annual risk assessments shall include the following required elements of the operator's Distribution Integrity Management Plan in identifying threats: Presence of excess flow valves, incident and leak history, corrosion control records, continuing surveillance records, patrolling records, maintenance history, excavation damage experience, and any other data deemed relevant by the operator.

2. The annual risk assessments records shall be maintained by the operator for at least 10 years.

3. Inactive service lines that are identified in the annual risk assessments as potential threats with a high-risk ranking shall be retired and physically abandoned within six months after completion of the annual risk assessment.

(d) After a service line has been inactive for a period of two years, if there is a prospect for reuse of the service line, the operator shall verify that the service line is permanently marked to identify the operator's name and phone number and shall take one of the following actions within six months:

1. Disconnect the service line from all sources of gas and physically abandon or remove;

2. A valve on the service line shall be locked in the closed position and the service line plugged to prevent the flow of gas; or

3. Remove the meter and plug the end of the service line to prevent the flow of gas.

(e) After a service line has been inactive for a period of five years, if the inactive service line is constructed of bare steel or cast iron or does not comply with current materials standards in 49 C.F.R. 192 (2011), the inactive service line shall be retired and physically abandoned within six months.

(f) After ten years of inactivity, service lines shall be retired and physically abandoned within six months.

(2) To physically abandon a service line, the operator must disconnect the service line from all sources of gas at the nearest point to the gas main. Where the appropriate governmental authority prohibits cutting pavement, the service line shall be disconnected at the nearest point not under a paved surface. The stub of the service line, the short section of the remaining service line to the main, shall be disconnected closer to the main or at the main, if at some later date it becomes accessible during normal operations.

(3) Records must be kept of the size, material, and location of all remaining service line stubs. These records must be readily available to personnel assigned to pipeline locating activities.

Rulemaking Authority 350.127(2), 368.03, 368.05(2) FS. Law Implemented 368.03, 368.05(2) FS. History--New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.45, Amended 1-7-92, 3-18-13.

25-12.046 Unauthorized Utilization of Gas Facilities.

(1) Upon determining unauthorized establishment of gas service, the operator shall turn off the service and such service shall not be re-established until the operator has ascertained that

testing meeting the requirement of Rule 25-12.043, F.A.C., had been made of all customer piping.

(2) When unauthorized service is established and such service is on a common header with other services which may have been tampered with, the operator shall, in the case of obvious tampering, check each such service to ascertain that only active customer services are open and that inactive services meet the applicable requirements of Rules 25-12.044 and 25-12.045, F.A.C. This investigation shall be made immediately after shutting off the unauthorized service, and a record shall be made of the results.

(3) When the operator becomes aware of unauthorized operation of any other equipment on its own facilities, it shall immediately investigate to determine the effect upon the system and take all prudent measures to assure the safety of its customers and the public in general.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History--New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.46, Amended 8-8-89.

25-12.050 Facility Identification.

(1) Gas service line valves at multi-service installations shall be plainly marked by a metal tag or other permanent means designating the building or part of the building being served. However, if marking of the meter will readily identify its service line valve, the meter may be marked in lieu of the service line valve.

(2) Each customer meter, gas regulating station, or any aboveground gas transporting facility shall be permanently marked to identify the operator's name and phone number. Marking of facilities shall be accomplished by metal signs, line markers, plastic decals, or other appropriate means.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History--New 9-21-74, Amended 10-7-75, Formerly 25-12.50, Amended 1-7-92.

25-12.052 Criteria for Cathodic Protection of Buried or Submerged Steel, Cast Iron, and Ductile Iron Pipeline.

(1) The only acceptable criteria for the determination of cathodic protection shall be I-A(1), I-A(3), and I-A(5) of Appendix D, of 49 C.F.R. 192 (2011).

(2) I-A(1) shall be the only criterion acceptable for determination of the degree of cathodic protection of externally coated buried or coated submerged pipelines installed after June 1, 1975. When requirements cannot be met due to ineffective insulating capabilities of the external coating, that portion of the pipeline may be isolated and protected using other criteria listed in subsection (1) above.

(3) Application of Criterion I-A(5) is restricted to bare and essentially bare ineffectively coated metallic gas pipelines installed prior to July 31, 1971.

(a) Prior to utilization of Criterion I-A(5), a proposed, comprehensive, written procedure for application and monitoring shall be submitted to the Commission's Bureau of Safety and Reliability.

(b) The effectiveness of the procedure shall be supported by test data obtained in actual field application of the procedure. An acceptable procedure shall demonstrate that the procedure can attain a protective net current flow from the surrounding electrolyte into the pipeline surface

at all current discharge (anodic) points.

(c) All procedure qualification records shall be retained as long as the qualified procedure is used.

(d) If application of the qualified procedure fails to provide the required protective net current flow from the surrounding electrolyte into the pipeline surface for a segment of the pipeline, the procedure shall be modified accordingly and requalified for use in similar conditions.

(e) The placement of the electrodes for resurvey monitoring of the application of I-A(5) shall utilize the same electrode locations as the initial survey when practical.

(f) Each pipeline that is under cathodic protection utilizing Criterion I-A(5) shall be tested at least once each calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of these rules.

(4) If gas leakage results from active corrosion of a pipeline, remedial action shall include application of cathodic protection to meet one of the criteria of this rule, as described in subsection (1), unless the pipeline is replaced with non-metallic pipe. Cathodic protection for these remedial applications must be tested at least once every calendar year, but with intervals not exceeding 15 months, to determine whether the cathodic protection meets the requirements of this rule.

(5) Each operator must take remedial action within three (3) months to correct or make substantial progress toward correction of any deficiencies indicated by monitoring.

Rulemaking Authority 350.127(2), 368.03, 368.05(2) FS. Law Implemented 368.03, 368.05 FS. History—New 10-7-75, Amended 10-2-84, Formerly 25-12.52, Amended 1-7-92, 10-11-12.

25-12.053 Cathodic Protection - Electrical Survey.

(1) Each operator shall have a comprehensive written procedure to evaluate electrical survey data on cathodically unprotected pipelines in order to identify areas of active corrosion where cathodic protection must be installed. The electrical survey requirement as referred to in Subpart I, Part 192, Title 49, CFR and these rules are intended to utilize the following surveys:

(a) Pipe/Soil potential survey.

(b) Soil resistivity survey.

(2)(a) A combination of the two surveys in (1) above is required on the initial electrical survey.

(b) For reevaluations, Pipe/Soil measurements and soil resistivity measurements are required to be taken, with soil resistivity measurements only being mandatory at Pipe/Soil potential anodic indications and areas where known changes could affect soil resistivity enough to cause active corrosion.

(3) When areas of active corrosion have been established and the operator does not have adequate knowledge of electric current requirements for the system, then current requirement tests shall be made to determine the degree of protective current required for cathodic protection.

(4) An electrical survey of an underground pipeline system may be considered impractical when obstructions such as concrete, asphalt, or other surface structures, lie in a position directly above the pipeline.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History--New 10-7-75, Amended 10-2-84, Formerly 25-12.53, Amended 1-7-92.

25-12.054 Cathodic Protection - Location of Reference Half-Cell.

The placement of the reference half-cell in the immediate vicinity of galvanic anodes shall not be acceptable for electrical measurement used to determine the adequacy of cathodic protection.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History--New 10-7-75, Formerly 25-12.54.

25-12.055 Odorization of Gas.

(1) Any operator who receives gas directly from a transmission supplier and distributes gas in any system that serves more than 25 customers must odorize all gas transported. As a minimum, the odorant when tested must be at a concentration readily detectable at a gas and air mixture of one-fifth of the lower explosive limit.

(2) At least twelve times per calendar year, at intervals not exceeding forty-five days, each operator shall sample gas distributed at places downstream of all injection points to assure the presence of odorant in a concentration that is in accordance with this rule. This testing of samples must be conducted using equipment manufactured specifically for odorant testing.

Specific Authority 368.05(2) FS. Law Implemented 368.03 FS. History--New 1-7-92.

25-12.060 General Records.

(1) Except as required herein or specifically requested, all tabulations, standards, drawings, or other records or documentations of incidents, procedures or studies related to or arising from the compliance with the various requirements of these rules and adopted codes shall be retained by the operator and be available for review by appropriate Commission personnel.

(2) Nothing in this Part shall be construed as requiring any specific form or title for the records retained pursuant to the provisions of these rules. All records shall be organized, arranged or prepared so that the required data is sufficient so that the status of compliance can be readily determined. All records shall be maintained within this State unless exemption from this provision is approved by the Commission.

(3) Retention of required records:

(a) Records pertaining to the system design or that are necessary for future evaluation of the system's safety shall be retained for the life of the facility involved.

(b) Records not included in subsection (a) above which are periodically superseded by updated or revised records shall be retained for the two most recent inspections or surveys.

(c) Records not included under subsection (a) or (b) above shall be retained for as long as they are in current use or until superseded by updated or revised documents.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History--New 11-14-70, Revised 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.60.

25-12.061 System Maps.

System maps of each local operating area shall be prepared and on file in the operating

company's respective local office. Such maps and related records shall readily identify the location and size of all system facilities and other information pertinent to the safe design of the system. These records shall be kept up to date.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 6-24-67, Amended 11-14-70, 9-21-74, Repromulgated 10-7-75, Formerly 25-12.61.

25-12.062 Leak Reports.

Records of gas leaks which are determined to be on the operator's system shall show as a minimum:

- (1) Address of suspected leak.
- (2) Date and time leak reported.
- (3) Description of leak reported.
- (4) Date and time operator personnel dispatched.
- (5) Date and time operator personnel arrived.
- (6) Date and time condition made safe.
- (7) Location of leak found.
- (8) Cause of leak.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 11-14-70, Revised 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.62.

25-12.080 General.

(1) All reports or filings required by these rules shall be submitted to the Commission.

(2) Nothing in these rules shall be construed to relieve any operator from responsibility to file reports or give notifications as required by the Pipeline and Hazardous Materials Safety Administration.

Rulemaking Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 11-14-70, Amended 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.80, Amended 12-15-09.

25-12.082 Construction Notice.

Written Notice shall be given to the Commission at least 15 days prior to start of all major construction or alteration of pipeline facilities, stating the size, approximate location and contemplated time of construction. Notice is required when the pipeline involved is both at least 2 inches in diameter as well as 2,000 feet or more in length.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 11-14-70, Amended 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.82, Amended 10-11-12.

25-12.083 Requalifying Maximum Allowable Operating Pressure.

No pipeline shall be qualified for a new and higher maximum operating pressure without first certifying to the Commission that the requirements of the applicable codes will be met and submitting the uprating plan to this Commission for review. If no objection is received from the Commission within fifteen (15) days, then work on the project may proceed.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History—New 11-14-70, Amended 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.83.

25-12.084 Notice of Accidents and Outages.

(1) At the earliest practicable moment following discovery each operator of facilities under Commission jurisdiction shall give telephonic notice to the Commission of any event involving the release of gas from a pipeline that:

- (a) Caused a death or a personal injury requiring hospitalization;
- (b) Required the taking of any segment of transmission pipeline out of service;
- (c) Resulted in gas igniting;
- (d) Caused estimated damage to the property of the operator, or others, or both, of a total of \$10,000 or more; or
- (e) In the judgment of the operator, was significant even though it did not meet the criteria of subsection (a), (b), (c) or (d) of this subsection.

(2) An operator need not give notice of an event that met only the criteria of paragraphs (b) or (c) of subsection (1), if it occurred solely as a result of, or in connection with, planned or routine maintenance or construction.

(3) Each operator shall immediately report to the Commission any distribution system-related accident or failure which interrupts service to either 10 percent or more of its meters or 500 or more meters.

Rulemaking Authority 350.127(2), 368.05(2) FS. Law Implemented 368.03, 368.05(2) FS. History—New 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.84, Amended 12-15-09.

25-12.085 Written Annual Reports Required.

(1) Each operator of a distribution system shall submit an annual report on Pipeline and Hazardous Materials Safety Administration Form PHMSA F 7100.1-1 (2015), entitled “Annual Report for Calendar Year 20__ Gas Distribution System,” which is incorporated by reference into this rule and is available at <http://www.flrules.org/Gateway/reference.asp?No=Ref-07924> for each distribution system. In the case of an operator who has more than one distribution system, a combined annual report must be submitted which includes all facilities operated within the State of Florida subject to the Commission’s jurisdiction.

(2) Each operator of a transmission system shall submit an annual report on Pipeline and Hazardous Materials Safety Administration Form PHMSA F 7100.2-1 (2014) entitled “Annual Report for Calendar Year 20__ Natural and Other Gas Transmission and Gathering Pipeline Systems,” which is incorporated by reference into this rule and is available at <http://www.flrules.org/Gateway/reference.asp?No=Ref-07925>.

All the above reports must be submitted for the preceding calendar year so as to be received by the Commission no later than March 15th of each year.

Rulemaking Authority 350.127(2), 368.05(2) FS. Law Implemented 368.03, 368.05(2) FS. History–New 11-14-70, Amended 9-21-74, Repromulgated 10-7-75, Amended 10-2-84, Formerly 25-12.85, Amended 12-15-09, 3-2-17.

25-12.0861 Response to Commission Staff Inquiries.

The necessary replies to inquiries propounded by the Commission’s staff shall be furnished in writing within fifteen (15) days from the date of the Commission inquiry.

Specific Authority 368.05(2) FS. Law Implemented 368.05(2) FS. History–New 10-2-84, Formerly 25-12.861.

End of Rules

The American Public Works Association (APWA) Uniform Color Codes for temporary marking of underground utilities are listed below:

Red	electric power lines, cables, conduit, and lighting cables
Orange	telecommunication, alarm or signal lines, cables, or conduit
Yellow	natural gas, oil, steam, petroleum, or other gaseous or flammable material
Green	sewers and drain lines
Blue	potable drinking water
Violet	reclaimed water, irrigation, and slurry lines
Pink	temporary survey markings, unknown/unidentified facilities
White	proposed excavation limits or route

Energy Source Equivalency

Natural Gas Conversion Factors

- 1 CF (Cubic Feet) = Approximately 1,000 BTUs
 1 CCF = 100 CF = 1 Therm
 1 Therm = 100 CF = 0.1 MCF = 100,000 BTUs
 1 Dekatherm = 10 Therms = 1 MCF = 1,000,000 BTUs
 1 MCF = 1,000 CF = 10 CCF = 10 Therms

Energy Conversion Factors

Comparative Thermal Values	1.00 million Btu	24.0 million Btu	0.0916 million Btu	0.125 million Btu	0.139 million Btu	0.150 million Btu	0.003412 million Btu
Natural Gas 1000 Btu/cu ft	1000 cu ft	24,000 cu ft	91.600 cu ft	125.000 cu ft	139.000 cu ft	150.000 cu ft	3.412 cu ft
Coal 12,000 Btu/lb	83.333 lb	2,000 lb	7.633 lb	10.417 lb	11.583 lb	12.500 lb	0.2843 lb
Propane 91,600 Btu/gal	10.917 gal	262.009 gal	1 gal	1.365 gal	1.517 gal	1.638 gal	0.0373 gal
Gasoline 125,000 Btu/gal	8.000 gal	192.000 gal	0.733 gal	1 gal	1.112 gal	1.200 gal	0.0273 gal
Fuel Oil #2 139,000 Btu/gal	7.194 gal	172.662 gal	0.659 gal	0.899 gal	1 gal	1.079 gal	0.0245 gal
Fuel Oil #6 150,000 Btu/gal	6.666 gal	160.000 gal	0.611 gal	0.833 gal	0.927 gal	1 gal	0.0227 gal
Electricity 3412 Btu/kWh	293.083 kWh	7,033.998 kWh	26.846 kWh	36.635 kWh	40.739 kWh	43.962 kWh	1 kWh

Natural Gas General Information

Natural gas that is available to end-users is tasteless and odorless, before gas is distributed to end-users, it is odorized by adding small amounts of odorants (mixtures of t-butyl mercaptan, isopropyl mercaptan, tetrahydrothiophene, dimethyl sulfide and other sulfur compounds), to assist in leak detection. Processed natural gas is, in itself, non-toxic and harmless to the human body; however, natural gas is a simple asphyxiant and can kill if it displaces air to the point where the oxygen content will not support life.

Natural gas can also be hazardous to life and property through an explosion. Natural gas is lighter than air, and so tends to dissipate into the atmosphere. However, when natural gas is confined, such as within a house, gas concentrations can reach explosive mixtures and, if ignited, result in blasts that could destroy buildings. Methane has a lower explosive limit of 4% in air, and an upper explosive limit of 15%.

NOTES

