

State of Connecticut
Regulation of
**Public Utilities Regulatory
Authority Concerning
Gas Pipeline Safety Standards**

Section 1. Section 16-11-22 of the Regulations of the Connecticut State Agencies is amended to read as follows:

Sec. 16-11-22. Meter location

[(a) Meters may be located inside or outside of a building depending upon local conditions and all] All meters shall be accessible for reading.

[(b) When located inside a building, the meter shall be installed as near as practicable to the point of entrance of the service, be in a clean, dry, safe place and be supported in such a manner as to be as free as possible from damage that will render it unsafe or inaccurate.

(c) When located outside a building, the meter shall be installed as near as practicable to the building and be supported in such a manner as to be as free as possible from damage that will render it unsafe or inaccurate. The gas company shall install an accessible shut-off cock ahead of the meter.]

Sec. 2. Section 16-11-31 of the Regulations of the Connecticut State Agencies is amended to read as follows:

Sec. 16-11-31. Utilization by customers

(a) All maintenance and repairs, including replacement where necessary, of the service pipe, between the main and the customer's house up to and including the meter, shall be performed by the gas company at its own expense.

(b) [The gas company shall be required to test the customer's piping for gas leaks, at time of turn on by the gas company, by observing that no gas passes through the meter when all appliances are turned off. The gas company shall refuse to serve until all gas leaks so disclosed have been properly repaired by the customer.] Any damage to the gas company's property caused by the customer, including damage occurring because of the customer's failure to take reasonable precautions to protect such property from damage, shall be paid by the customer.

(c) If the use of the customer's property endangers the gas company's property or is in violation of any applicable statute, regulation, or other governmental order, the customer shall bear the cost of all relocation or repairs of the gas company's property.

Sec. 3. Section 16-11-41 of the Regulations of the Connecticut State Agencies is amended to read as follows:

Sec. 16-11-41. [Services] Installation of services

[(a) **Regulators.** (A device for reducing and controlling pressures between the service and house piping) (1) Any customer's service being supplied through a customer service pressure regulator shall be protected by a suitable safety device to prevent the development of pressures in excess of two pounds per square inch gauge. (2) Provision shall be made for the venting of the diaphragms of service pressure regulators and pressure relief devices to the outside atmosphere. The vent shall be of a size no smaller than the connection provided by the manufacturer and so installed as to relieve the entire capacity of the relieving device. Such vent or vents shall terminate outside buildings, pits and confined spaces in rain-proof fittings and shall be installed with due regard to hazards to life and property by the venting of gas into the atmosphere. (3) All service pressure regulators installed on the customer's premises shall be maintained in proper working order and shall be periodically inspected in place, preferably at the time of removal of the meter for periodic testing. The inspection shall consist of external examination of the regulator, its piping, seal, vent line and operating condition.

(b) **Shutoffs.** (1) All services entering a building shall be provided with a shutoff inside of the building and ahead of the meter. Where a service pressure regulator is part of the metering installation, the shutoff shall be located upstream of the other gas service fittings within the building. (2) A shutoff shall be installed at the curb or property line on all gas services supplying gas to a theater, church, school, factory or other building where large numbers of persons assemble and on all gas services where the inlet pressure to the service is in excess of two pounds per square inch gauge. In the case of an outside meter or regulator installation, subsection (c) of section 16-11-22 shall apply. (3) Shutoffs may be either a cock or a valve and shall be accessible and maintained in proper working order.

(c)] **(a) Installation of services.** (1) The gas company may furnish and install, but shall maintain free of charge, a gas service from the gas main adjacent to the customer's premises to the customer's property line or curb when in its judgment the cost of installation is reasonable and the use of gas is sufficient to warrant it. (2) While the service connections from the property line to the customer's metering equipment shall ordinarily be installed at the expense of the customer and shall be maintained by the company, the company may furnish such service connections in whole or in part when, in its judgment, the cost of installation is reasonable and the use of gas is sufficient to warrant it.

Sec. 4. Section 16-16-2(a) of the Regulations of the Connecticut State Agencies is amended to read as follows:

Sec. 16-16-2. Types of accidents

(a) **Major accidents.** The following types of accidents are considered major accidents:

(1) Any fatality which was or may have been connected with or due to a utility's operation, property or facility, except vehicular accidents that would be considered minor accidents pursuant to subsection (b)(3) of this section;

(2) A shutdown of a water treatment facility which supplies water to 50 or more customers, for any period of time, for any reason other than routine maintenance;

(3) Any injury which was or may have been connected with or due to electrical contacts with a utility's property or facility, requiring in-patient hospitalization of any person;

(4) Any accident or injury which was or may have been connected with or due to a utility's storage or handling of hazardous chemicals, as defined in [40 CFR 262.102] section 22a-448 of the Connecticut General Statutes, which requires in-patient hospitalization of any person or presents a threat to public health and safety;

(5) Any water main break which impacts 50 or more customers, or interrupts service for more than four hours, or affects any critical customers identified in the affected water company's emergency plan, such as hospitals and public buildings;

(6) Any event that [results in an emergency shutdown of a liquefied natural gas facility] meets the definition of an incident, as defined in 49 CFR 191.3, as amended from time to time;

[(7) Any release of gas or liquefied natural gas from a utility's pipeline or other facility that causes injury to any person requiring in-patient hospitalization or property damage, including cost of total gas loss, of \$50,000 or more;]

[(8)] (7) Any structure fires or other cases of damage to a utility's facility or customer equipment where the public might have been exposed to primary voltage;

[(9)] (8) Any explosions, major fires or other cases of serious damage at any utility facility, including pipelines, manholes, vaults and water tanks;

[(10)] (9) Any situations where energized downed wires trap members of the public in vehicles; and

[(11)] (10) Any accident that is significant, in the judgment of the utility, even if the accident does not meet the criteria of subdivisions (1) to [(10)] (9), inclusive, of this subsection.

Sec. 5. The Regulations of Connecticut State Agencies are amended by adding sections 16-280b-A1 to 16-280b-A76, inclusive, as follows:

(NEW) Sec. 16-280b-A1. Definitions

(a) As used in sections 16-280b-A1 to 16-280b-A76, inclusive, 16-280b-B1 to 16-280b-B32, inclusive, and 16-280b-C1 to 16-280b-C10, inclusive, of the Regulations of Connecticut State Agencies:

- (1) The definitions contained in 49 CFR 191.3, as amended from time to time, and 49 CFR 192.3, as amended from time to time.
- (2) "Authority" means the Public Utilities Regulatory Authority or its successor.
- (3) "Barhole" means a small-diameter hole made in the ground to obtain a subsurface Gas-in-air reading.
- (4) "Combustible Gas Indicator" or "CGI" means a device used to measure flammable Gas-in-air concentrations.
- (5) "District Regulator Station" means a Pipeline Facility that controls pressure to a Main.

- (6) “Emergency Valve” means a valve maintained pursuant to 49 CFR 192.747, as amended from time to time.
 - (7) “Environmentally Significant Grade 3 Leak” means any leak classified under section 16-280b-B28(f)(4) of the Regulations of Connecticut State Agencies.
 - (8) “Federal Regulation” means any regulation incorporated by reference by section 16-280c of the Connecticut General Statutes.
 - (9) “Gate Station” means a Pipeline Facility used to receive Gas from another entity or from an LNG Facility.
 - (10) “Geographic Information System” or “GIS” means an electronic system that creates, manages, analyzes, and maps data.
 - (11) “Gas Pipeline Safety Unit” or “GPSU” means the unit within the Authority responsible for pipeline safety.
 - (12) “Grade 1 Leak” means any leak classified under section 16-280b-B28(f)(1) of the Regulations of Connecticut State Agencies.
 - (13) “Grade 2 Leak” means any leak classified under section 16-280b-B28(f)(2) of the Regulations of Connecticut State Agencies.
 - (14) “Grade 3 Leak” means any leak classified under section 16-280b-B28(f)(3) of the Regulations of Connecticut State Agencies.
 - (15) “Job-Specific Procedure” means a Procedure developed for one-time use under a specific set of conditions.
 - (16) “Peaking Facility” means a Pipeline Facility used to supply additional Gas to a Pipeline during periods of exceptionally high demand.
 - (17) “Petroleum Gas Distribution System” means any Pipeline Facility subject to 49 CFR 192, as amended from time to time, that transports only Petroleum Gas.
 - (18) “Pressure Drop Test” means a method of leakage survey in which the segment of Pipe to be tested is filled with a test medium, isolated for a sufficient time to identify any pressure changes caused by a leak and where the pressure is monitored with a pressure gauge.
 - (19) “Procedure” means written procedures, plans, specifications, standards and work practices.
 - (20) “State Regulation” means sections 16-280b-A1 to 16-280b-A76, inclusive, 16-280b-B1 to 16-280b-B32, inclusive, and 16-280b-C1 to 16-280b-C10, inclusive, of the Regulations of Connecticut State Agencies.
 - (21) “Telemetry Equipment” means devices or sensors that transmit data to a remote location describing the operating conditions of a Pipeline Facility.
 - (22) “Upgrading” means a process where the operating pressure of any segment of Pipeline is increased, within its established MAOP, substantially above the maximum actual operating pressure it has been subject to during the previous 2 years.
- (b) As used in State Regulations and Federal Regulations:
- (1) “Business District” means an area, including residential areas, with Pipeline Facilities located under predominantly continuous paving or concrete that extends:
 - (A) either from the center line of a Street to a building wall; or
 - (B) from a Main to a building wall.
 - (2) “Conduit” means a tubular structure used for the purpose of allowing a Pipe to be inserted inside of it.
 - (3) “Covered Task” means an activity performed on a Pipeline Facility and that affects the safety or integrity of a Pipeline.

- (4) “Curb Valve” means a valve located belowground on a Service Line typically at or near the property line.
- (5) “High Pressure” or “High-Pressure” means any pressure other than Low Pressure.
- (6) “Low Pressure” or “Low-Pressure” means the pressure in a Pipeline without Service Regulators on Service Lines and operating at less than one pound per square inch gauge.
- (7) “Placed In Service” means Gas has been introduced into a Pipeline.
- (8) “Public Place” means a place generally open to all persons in a community as opposed to being restricted to specific persons. A Public Place includes churches, schools, and commercial property, as well as any publicly owned right-of-way or property frequented by persons.
- (9) “Record” means a document created by an Operator that is sufficiently detailed to prove compliance with a Federal Regulation or a State Regulation.
- (10) “Service Line” means the definition contained in 49 CFR 192.3, as amended from time to time, and any segment intended for future use as a Service Line, which is commonly referred to as a service stub.
- (11) “Street” means any state or other public highway, road, street, avenue, alley, driveway, parkway or place, under the control of the state or any political subdivision of the state, dedicated, appropriated or opened to public travel or other use.
- (12) “Utility” means any wire, cable, pipe (including, but not limited to, storm sewer, sanitary sewer and drainage system, or part thereof), Vault, tank, transformer, or other similar property or equipment that is currently in-service.
- (13) “Vault” means a belowground structure which may be entered, and which is designed to contain a Pipeline.
- (c) As used in sections 16-280b-A1 to 16-280b-A76, inclusive, and 16-280b-B1 to 16-280b-B32, inclusive, of the Regulations of Connecticut State Agencies, and 49 CFR 192, Subpart N, as amended from time to time:
 - (1) “Qualified” means that an individual has completed an Evaluation and can correctly:
 - (A) perform the Covered Task;
 - (B) recognize and react to Abnormal Operating Conditions specific to any Covered Task that may be encountered while performing said Covered Task;
 - (C) demonstrate the knowledge required to perform the Covered Task, such as: equipment selection, maintenance of equipment, calibration requirements and proper operation of equipment, including variations that may be encountered in the performance of the Covered Task due to equipment, operational, contextual and environmental differences;
 - (D) demonstrate the skills required to perform the Covered Task; and
 - (E) demonstrate the physical abilities required to perform the Covered Task.

(NEW) Sec. 16-280b-A2. Introduction

Sections 16-280b-A1 to 16-280b-A76, inclusive, 16-280b-B1 to 16-280b-B32, inclusive and 16-280b-C1 to 16-280b-C10, inclusive, of the Regulations of Connecticut State Agencies, are regulations that are in addition to, add clarification to, or are more stringent than the Federal Regulations.

(NEW) Sec. 16-280b-A3. Natural Gas and Petroleum Gas Operators

Sections 16-280b-A4 to 16-280b-A76, inclusive, of the Regulations of Connecticut State Agencies, apply to each Operator that transports natural Gas or Petroleum Gas.

(NEW) Sec. 16-280b-A4. Minimum regulations

- (a) The Federal Regulations and the State Regulations shall be considered the minimum requirements for each Operator.
- (b) Each Operator is permitted to exceed the minimum requirements of the Federal Regulations or the State Regulations.

(NEW) Sec. 16-280b-A5. Effective dates and applicability

All State Regulations are effective immediately with respect to all Pipeline Facilities, unless otherwise noted, except for the following State Regulations which are effective immediately only with respect to installation of new Pipeline Facilities: 16-280b-A28, 16-280b-A30(b), 16-280b-A31, 16-280b-A32, 16-280b-A33, 16-280b-A34, 16-280b-A35, 16-280b-A37, 16-280b-A38, 16-280b-A39(a), 16-280b-A39(b), 16-280b-A39(c), 16-280b-A39(d), 16-280b-A40, 16-280b-A41, 16-280b-A44(a), 16-280b-A45, 16-280b-A46, 16-280b-A50, 16-280b-B8, 16-280b-B9, 16-280b-B13(b), 16-280b-B16, 16-280b-B17, 16-280b-B18, 16-280b-B20, 16-280b-C4 and 16-280b-C7(4).

(NEW) Sec. 16-280b-A6. Interpretations

- (a) The GPSU is responsible for interpreting regulations that apply to the Transportation of Gas.
- (b) If any Operator is aggrieved by any GPSU interpretation, the Operator may request an interpretation by the Authority.

(NEW) Sec. 16-280b-A7. Master Meter Systems

Master Meter Systems are not permitted.

(NEW) Sec. 16-280b-A8. Pipeline Facilities

- (a) Each Operator shall maintain its Pipeline Facilities in such condition to allow for adequate and continuous service.
- (b) Each Operator shall use reasonable effort to properly protect the public from danger and shall exercise due care to reduce the hazards to which employees, customers and others may be subjected by reason of its Pipeline Facilities.
- (c) Upon notification or discovery, any condition determined to be immediately threatening to life, health or property shall be mitigated and made-safe by continuous action.

(NEW) Sec. 16-280b-A9. Information requests and filings

- (a) When requested by the GPSU, each Operator shall file such information which the GPSU deems necessary to protect public safety.
- (b) Each Operator shall respond to the requests from subsection (a) of this section within the timeframe established in the request.
- (c) If an Operator cannot respond within the timeframe established in subsection (a) of this section, a written request for a time extension, including a justification, shall be timely filed with the GPSU.
- (d) All filings submitted to the GPSU made pursuant to any Federal Regulation or State Regulation shall be in accordance with procedures established by the GPSU.

(NEW) Sec. 16-280b-A10. Procedures

- (a) Each Operator shall develop and follow a Procedure to address each applicable State Regulation, except a Procedure is not required for the following: 16-280b-A1, 16-280b-A2, 16-280b-A3, 16-280b-A4, 16-280b-A5, 16-280b-A6, 16-280b-A8, 16-280b-A9, 16-280b-A10(a), 16-280b-A10(b), 16-280b-A30(a), 16-280b-A38(a), 16-280b-A48(a), 16-280b-A54(a), 16-280b-A60, 16-280b-B1, 16-280b-B2(a), 16-280b-B13(a), 16-280b-B28(a), 16-280b-B31(a), 16-280b-B32(a) and 16-280b-C1.
- (b) Each Operator shall have and follow a Procedure to address each applicable regulation contained in 49 CFR 191, as amended from time to time, and 49 CFR 192, as amended from time to time, except a Procedure is not required for the following: 49 CFR 191.1, 49 CFR 191.3, 49 CFR 191.7(b), 49 CFR 191.21, 49 CFR 191 Appendix A, 49 CFR 192.1, 49 CFR 192.3, 49 CFR 192.7, 49 CFR 192.13, 49 CFR 192.15, 49 CFR 192.51, 49 CFR 192.53(c), 49 CFR 192.101, 49 CFR 192.141, 49 CFR 192.203(a), 49 CFR 192.221, 49 CFR 192.271, 49 CFR 192.301, 49 CFR 192.351, 49 CFR 192.383(a), 49 CFR 192.385(a), 49 CFR 192.451, 49 CFR 192.501, 49 CFR 192.551, 49 CFR 192.601, 49 CFR 192.603(a), 49 CFR 192.603(c), 49 CFR 192.701, 49 CFR 192.703(a), 49 CFR 192.727(a), 49 CFR 192.801, 49 CFR 192.803, 49 CFR 192.1001, 49 CFR 192.1003 and 49 CFR 192 Appendix B I, all as amended from time to time.
- (c) All Procedures for any activity to be performed shall be readily available where the activity is taking place.
- (d) Each Operator shall take actions to revise its Procedures based on operations, maintenance and construction experience and changes in operating conditions, where warranted.

(NEW) Sec. 16-280b-A11. Management of Change

Each Operator shall have a Management of Change program that shall communicate changes to all Persons affected by the change. The program shall clearly define what constitutes a change, how these changes are communicated, implemented, and any necessary training. The Management of Change program shall include the following:

- (1) changes that affect Covered Tasks, and whether currently Qualified individuals may continue to perform the Covered Task considering the change; and
- (2) changes that affect Procedures.

(NEW) Sec. 16-280b-A12. Records

- (a) Records are required for each applicable State Regulation, except a Record is not required for the following: 16-280b-A1, 16-280b-A2, 16-280b-A3, 16-280b-A4, 16-280b-A5, 16-280b-A6, 16-280b-A7, 16-280b-A8, 16-280b-A9, 16-280b-A10(a), 16-280b-A10(b), 16-280b-A10(c), 16-280b-A12, 16-280b-A15(b), 16-280b-A16(a)(1), 16-280b-A16(a)(5), 16-280b-A19, 16-280b-A20, 16-280b-A21, 16-280b-A22, 16-280b-A23(a), 16-280b-A23(c), 16-280b-A25(b), 16-280b-A25(c), 16-280b-A25(d), 16-280b-A26, 16-280b-A27, 16-280b-A29, 16-280b-A30(a), 16-280b-A30(c), 16-280b-A30(d), 16-280b-A30(e), 16-280b-A30(f), 16-280b-A33, 16-280b-A34, 16-280b-A35, 16-280b-A36, 16-280b-A37, 16-280b-A38(a), 16-280b-A38(b), 16-280b-A38(c), 16-280b-A38(d)(1-4), 16-280b-A39(a), 16-280b-A39(b), 16-280b-A39(d), 16-280b-A39(e), 16-280b-A40(b), 16-280b-A42(d), 16-280b-A48(a), 16-280b-A50, 16-280b-A54(a), 16-280b-A60, 16-280b-A61(b), 16-280b-A63, 16-280b-A66, 16-280b-A67(a), 16-280b-A68(e), 16-280b-A69(d), 16-280b-A69(e), 16-280b-A75, 16-280b-B1, 16-280b-B2, 16-280b-B3, 16-280b-B4, 16-280b-B5, 16-280b-B10(c), 16-280b-B10(d), 16-280b-B10(e), 16-280b-B11(c), 16-280b-B13(a), 16-280b-B13(b), 16-280b-B13(c), 16-280b-B13(e), 16-280b-B14, 16-280b-B15, 16-280b-B19, 16-280b-B20(a)(1), 16-280b-B20(a)(3), 16-280b-B20(b), 16-280b-B25, 16-280b-B27(a)(1), 16-280b-B28(a), 16-280b-B28(b), 16-280b-B28(f)(5), 16-280b-B30(d), 16-280b-B30(e), 16-280b-B30(f), 16-280b-B31(a), 16-280b-B32(a), 16-280b-B32(h)(2), 16-280b-B32(i)(2-3), 16-280b-B32(i)(6), 16-280b-C1, 16-280b-C2, 16-280b-C6, 16-280b-C8, 16-280b-C10(b)(1), 16-280b-C10(b)(2)(B) and 16-280b-C10(c)(3).
- (b) Records are required for each applicable regulation contained in 49 CFR 191, as amended from time to time, and 49 CFR 192, as amended from time to time, except a Record is not required for the following: 49 CFR 191.1, 49 CFR 191.3, 49 CFR 191.7(b), 49 CFR 191.21, 49 CFR 192.22(b), 49 CFR 191 Appendix A, 49 CFR 192.1, 49 CFR 192.3, 49 CFR 192.7, 49 CFR 192.11, 49 CFR 192.13, 49 CFR 192.15, 49 CFR 192.16(a), 49 CFR 192.18, 49 CFR 192.51, 49 CFR 192.63, 49 CFR 192.69, 49 CFR 192.101, 49 CFR 192.141, 49 CFR 192.181(c)(2-3), 49 CFR 192.185(c), 49 CFR 192.193, 49 CFR 192.203(a), 49 CFR 192.221, 49 CFR 192.231, 49 CFR 192.235, 49 CFR 192.271, 49 CFR 192.273(b), 49 CFR 192.273(c), 49 CFR 192.281(a), 49 CFR 192.281(b), 49 CFR 192.281(c), 49 CFR 192.281(d), 49 CFR 192.283(c), 49 CFR 192.301, 49 CFR 192.303, 49 CFR 192.309, 49 CFR 192.311, 49 CFR 192.313(a), 49 CFR 192.313(d), 49 CFR 192.317, 49 CFR 192.319(b), 49 CFR 192.321(c), 49 CFR 192.321(e), 49 CFR 192.321(f), 49 CFR 192.351, 49 CFR 192.353, 49 CFR 192.355(b), 49 CFR 192.357, 49 CFR 192.361(b-e), 49 CFR 192.361(g), 49 CFR 192.365, 49 CFR 192.367(a), 49 CFR 192.375(a)(2), 49 CFR 192.375(b), 49 CFR 192.381(c), 49 CFR 192.383(a), 49 CFR 192.385(a), 49 CFR 192.451, 49 CFR 192.461(a), 49 CFR 192.461(b), 49 CFR 192.461(d), 49 CFR 192.467(e), 49 CFR 192.471, 49 CFR 192.473(b), 49 CFR 192.479(a-b), 49 CFR 192.481(b), 49 CFR 192.501, 49 CFR 192.515, 49 CFR 192.551, 49 CFR 192.601, 49 CFR 192.603(a), 49 CFR 192.603(c), 49 CFR 192.701, 49 CFR 192.703(a), 49 CFR 192.707(d), 49 CFR 192.727(a), 49 CFR 192.801, 49 CFR 192.803, 49 CFR 192.1001, 49 CFR 192.1003 and 49 CFR 192 Appendix B I, all as amended from time to time.
- (c) Records shall be accessible in the State of Connecticut and shall be available for inspection by the Authority at all reasonable times.

- (d) Records shall be maintained for at least 10 years, except for the audio recordings of phone calls required by section 16-280b-B24(a) of the Regulations of Connecticut State Agencies, which shall be maintained for at least 90 calendar days.

(NEW) Sec. 16-280b-A13. Inspections, tests, examinations, checks, surveys and surveillance

- (a) Each Operator shall make any subsequent inspection, test, examination, check, survey or surveillance interval required by any Federal Regulation or State Regulation shorter if the initial results indicate systemic deficiencies that would be improved by shorter intervals.
- (b) Where shorter intervals are implemented pursuant to subsection (a) of this section, remediation timeframes shall be reduced commensurate with the shortened intervals.

(NEW) Sec. 16-280b-A14. Manufacturer's procedures and recommendations

- (a) Each Operator shall follow each manufacturer's procedures and recommendations for any Pipeline component or piece of equipment it uses unless otherwise justified. The justification shall explain why the manufacturer's procedure or recommendations are not being followed and shall provide an alternative Procedure.
- (b) The condition of all equipment used by each Operator shall conform to the equipment manufacturer's recommended tolerances for acceptable wear, where applicable. The Operator shall inspect equipment based on usage, age, condition, and manufacturer's recommendations.

(NEW) Sec. 16-280b-A15. Calibration

- (a) Each Operator shall perform periodic calibration of all equipment, where improper calibration could impact its performance.
- (b) Each Operator shall have a means to verify calibration of all such equipment when equipment is used.

(NEW) Sec. 16-280b-A16. Establishing or reestablishing service

- (a) No Operator shall establish service where any of the following conditions are present:
 - (1) the Service Line is undersized for the anticipated load and the load cannot be reduced to acceptable levels by isolation of select Gas utilization equipment;
 - (2) the aboveground portion of the Service Line is not compliant with the Operator's Procedures;
 - (3) customer piping has not passed a pressure test as required by the authority having jurisdiction;
 - (4) Gas flow is detected through customer piping despite all Gas utilization equipment being shut off; or
 - (5) the authority having jurisdiction has found the customer piping to be non-compliant.

- (b) No Operator shall reestablish service where subsections (a)(1), (a)(4), or (a)(5) of this section, are present. In addition, no Operator shall reestablish service where the non-compliance in subsection (a)(2) of this section, is an immediate safety concern. This subsection does not apply to interruptible customers who were shut-off due to supply constraints.

(NEW) Sec. 16-280b-A17. Customer equipment inspections

- (a) Whenever an Operator establishes service to a customer or reestablishes service after an interruption of service, the Operator shall confirm that an inspection of visible burner ignition and flame appearance has been made at all Gas utilization equipment, not otherwise returned to service by the customer, to ensure safe operation. The Operator shall advise the customer of any safety concerns with the inspected equipment. This subsection does not apply to interruptible customers who were shut-off due to supply constraints.
- (b) Each Operator shall have a process of disabling customer equipment or piping that poses a safety concern that includes the following:
- (1) when and how to disable equipment or piping;
 - (2) how to mark disabled equipment or piping;
 - (3) providing the customer an explanation of the concern;
 - (4) a method of tracking the equipment or piping that was disabled, including the type of equipment or piping, the safety concern, actions taken, and the date;
 - (5) when to remove markings from disabled equipment or piping; and
 - (6) notifying the authority having jurisdiction over the disabled equipment or piping not later than 30 calendar days after the equipment or piping was disabled if the Operator has not been contacted to perform a follow up inspection.

(NEW) Sec. 16-280b-A18. Planned interruptions

Planned interruptions of service shall be preceded by adequate notice to all affected customers of record.

(NEW) Sec. 16-280b-A19. 49 CFR 191 reports

Each Operator shall concurrently submit all filings required pursuant to 49 CFR 191, as amended from time to time, to the GPSU.

(NEW) Sec. 16-280b-A20. Notifications

Each Operator shall notify the GPSU as soon as practicable but not later than 1 hour after an Operator can reasonably determine, based on information available to the Operator that any of the following involving an Operator's Pipeline Facilities have occurred:

- (1) damage during excavation excluding damage limited to Pipe coating;
- (2) the unexpected or uncontrolled release of Gas because of operations and maintenance activities;
- (3) explosion or fire;
- (4) the mandatory evacuation of a building or area due to Gas odor;

- (5) the unplanned shutdown of a Main;
- (6) unplanned interruption of service to two or more Service Lines along the same Main segment;
- (7) significant supply constraints involving transmission or a Peaking Facility with potential customer impact;
- (8) the use of a temporary natural Gas supply, other than a Peaking Facility, to maintain service;
- (9) the unplanned shutdown of a railroad system;
- (10) news media coverage;
- (11) exceedance of the MAOP of a Pipeline plus allowable buildup pursuant to 49 CFR 192.201, as amended from time to time;
- (12) exceedance of the MAOP of a Pipeline, except during maintenance;
- (13) odorant concentrations at which odorant becomes readily detectible by a person with a normal sense of smell at greater than 0.9 percent Gas in air for natural Gas, or greater than 0.4 percent Gas in air for Petroleum Gas;
- (14) a cybersecurity breach on systems that affect a Pipeline Facility or a Peaking Facility; or
- (15) the physical security breach of a Peaking Facility, Gate Station or District Regulator Station.

(NEW) Sec. 16-280b-A21. Employees, contractors and consultants

- (a) Each Operator is responsible for ensuring that its employees, contractors and consultants are following all Federal Regulations, State Regulations and Procedures while performing Covered Tasks.
- (b) Each Operator shall utilize Operator personnel or directly hire the entities responsible for inspecting the work of contractors.

(NEW) Sec. 16-280b-A22. Valves

- (a) The following valves shall be protected against unauthorized operation and be specifically identifiable in the field:
 - (1) any valve that could render a pressure regulating or relieving device inoperative;
 - (2) valves separating segments at different operating pressures;
 - (3) unattended aboveground valves that are in the closed position where no other device is installed to prevent the flow of Gas; and
 - (4) any Curb Valve in the closed position.
- (b) If any valve identified in subsection (a) of this section is located belowground, the valve shall be secured to prevent unauthorized access or equipped with a device, labelled "GAS", that needs to be removed for valve operation.

(NEW) Sec. 16-280b-A23. Vaults

- (a) Vaults shall:
 - (1) provide access to equipment through doors or covers designed not to fall into the enclosure;
 - (2) be constructed to protect Piping and equipment during an explosion or fire; and

- (3) where Piping and tubing are unable to support the weight of a person, Piping and tubing shall be located to minimize the risk of damage by persons occupying the Vault.
- (b) Prior to entry into any Vault, the Vault atmosphere shall be tested for gases and oxygen deficiency.
- (c) 49 CFR 192.605(b)(9), as amended from time to time, shall apply to Vaults.
- (d) Any deficiencies found pursuant to 49 CFR 192.749, as amended from time to time, shall be remediated not later than 1 year after discovery, except that any hazardous leak shall be repaired immediately.

(NEW) Sec. 16-280b-A24. Enclosures

- (a) The atmosphere of any enclosure that has Pipe or equipment containing Gas shall be isolated from the atmosphere of all other enclosures.
- (b) Where electrical equipment is in the same enclosure as Pipe or equipment containing Gas, the electrical equipment shall meet the applicable requirements of the National Electric Code, NFPA-70 as incorporated in 49 CFR 192.7, as amended from time to time.

(NEW) Sec. 16-280b-A25. Service Regulators

- (a) Service Regulators shall be replaced as soon as practicable after water has entered the regulator.
- (b) On or before [INSERT DATE 4 YEARS AFTER EFFECTIVE DATE OF REGULATION], plastic pipe used to vent Service Regulators:
 - (1) shall not be located inside a building.
 - (2) may be located outdoors provided it meets one of the following specifications:
 - (A) PVC conduit meeting the requirements of UL-651, Standard for Schedule 40, 80, Type EB and A Rigid PVC Conduit and Fittings; or
 - (B) Flexible conduit meeting the requirements of UL-1660, Standard for Liquid-Tight Flexible Nonmetallic Conduit, with fittings meeting the requirements of UL-514B, Standard for Conduit, Tubing, and Cable Fittings.
- (c) Each Operator shall ensure that the pipe and fittings used to vent regulators shall not inhibit the ability of the regulator relief to limit downstream pressure to the requirements of section 16-280b-B13(d) of the Regulations of Connecticut State Agencies.
- (d) Service Regulators shall be labeled to reflect the installed interchangeable components, such as orifice size, core size and spring pressure range at the time such Service Regulators or components are changed or replaced.
- (e) Service Regulators shall be inspected periodically to ensure they are in working order. The inspection shall consist of external examination of the regulator, its piping, seal, vent line and operating condition and shall include verifying the lock-up pressure. Any Service Regulator found functioning improperly shall be replaced or repaired immediately.

(NEW) Sec. 16-280b-A26. Vehicle protection

Vehicle protection is required at each Gate Station and District Regulator Station where vehicular damage may be anticipated. This section does not apply to vent lines.

(NEW) Sec. 16-280b-A27. Backup electrical supply

- (a) A backup electrical supply for any equipment needed to maintain over-pressure protection shall be provided.
- (b) On or before [INSERT DATE 10 YEARS AFTER EFFECTIVE DATE OF REGULATION] all Telemetry Equipment supplied by commercial power shall have a backup electrical supply capable of maintaining operation for at least 48 hours.

(NEW) Sec. 16-280b-A28. Nondestructive testing

- (a) All welds made by the Operator or its contractor for Gate Stations, District Regulator Stations, bridge crossings and railroad crossings shall be nondestructively tested.
- (b) At least 10 percent of all Pipeline welds made by the Operator, or its contractor, shall be nondestructively tested each calendar year. These tests shall be non-periodic and randomly distributed throughout the system, the Welders and Welding Operators and the calendar year.

(NEW) Sec. 16-280b-A29. Repair or removal of defects

Each weld that requires repair or removal shall be repaired or removed prior to being Placed In Service, unless said weld is already in service, at which time it shall be repaired or removed as soon as practicable.

(NEW) Sec. 16-280b-A30. Joining of materials other than by welding

- (a) Definition. For purposes of this section, the following definition applies:
 - (1) "Mechanical Fitting" means a stab type fitting, nut follower type fitting, bolted type fitting, not including a pipe flange, or other compression type fitting.
- (b) All Mechanical Fittings shall provide a seal and additional Pipe restraint on all sides of the fitting.
- (c) Mechanical Fittings shall not be located inside a building.
- (d) Procedures for each joining method shall include:
 - (1) instructions to review the manufacturers markings on Pipe, valves and fittings to ensure they are correctly sized and meet all requirements for use in the Transportation of Gas;
 - (2) preparation requirements such as cleaning, heating, scraping, and marking of the Pipe that have an impact on the integrity of the joint;
 - (3) assembly instructions, such as sequence of operations, positioning of parts, clearances and tools required; and
 - (4) joining specifications such as torque, hydraulic pressure, engagement, cooling and rough handle times, stab depths, and temperatures.
- (e) Procedures for threaded joints shall include:

- (1) threaded surfaces shall be cleaned and inspected for any condition that would affect the integrity of the joint;
 - (2) threads exhibiting any condition that would affect the integrity of the joint shall not be used;
 - (3) the two ends to be joined shall be properly aligned;
 - (4) the joint shall be tightened using appropriate tools to produce a gastight joint; and
 - (5) care shall be used to protect the adjacent Piping from damage that impairs the serviceability of the Piping while tightening or loosening a threaded joint.
- (f) Any joint found not in compliance with 49 CFR 192.273(c), as amended from time to time, shall be repaired or removed prior to being Placed In Service, unless said joint is already in service, at which time it shall be repaired or removed as soon as practicable.

(NEW) Sec. 16-280b-A31. Qualifying Persons to make joints

The requalification pursuant to 49 CFR 192.285(c), as amended from time to time, shall be required after any joint, that has been declared acceptable to be Placed In Service by the joiner, is found not acceptable under the Procedure.

(NEW) Sec. 16-280b-A32. Inspection

- (a) The inspections required pursuant to 49 CFR 192.305, as amended from time to time, and 49 CFR 192.307, as amended from time to time, shall apply to Service Lines prior to being Placed In Service.
- (b) The inspections required pursuant to 49 CFR 192.307, as amended from time to time, shall occur just prior to backfilling.
- (c) Any Main or Service Line found not in compliance with 49 CFR 192.305, as amended from time to time, and 49 CFR 192.307, as amended from time to time, shall be remediated prior to being Placed In Service.

(NEW) Sec. 16-280b-A33. Bends and elbows

- (a) 49 CFR 192.313, as amended from time to time, shall apply to Service Lines.
- (b) Joints and taps in plastic Pipe are not permitted in bends with a radius of less than 100 times the Pipe diameter.
- (c) No wrinkle bends shall be made in any Pipe.
- (d) Any field bend in steel Pipe shall be made using an appropriate tool.

(NEW) Sec. 16-280b-A34. Backfill

All belowground Pipelines, where backfill is required, shall be installed with free-draining fill that completely passes through a 3/8-inch sieve, unless the Pipelines are otherwise protected; and any Pipeline:

- (1) 2 inches and smaller in diameter shall be installed with at least 2 inches of free-draining fill above and below, prior to compaction; or
- (2) greater than 2 inches in diameter shall be installed with at least 3 inches of free-draining fill below and on the sides and at least 6 inches above, prior to compaction.

(NEW) Sec. 16-280b-A35. Installation of plastic Pipe

Installation of used plastic pipe is prohibited; however, reinstating an existing plastic Pipeline is allowed.

(NEW) Sec. 16-280b-A36. Squeezing plastic Pipe

- (a) Before plastic Pipe is squeezed-off and put back into service, the Operator shall reasonably ensure that the plastic Pipe can be squeezed-off and reopened without causing failure.
- (b) Whenever plastic Pipe is squeezed-off and reopened, the squeeze-off location shall be permanently marked on the plastic Pipe.
- (c) Each Operator shall provide for a squeeze-off and reopening process, including specific tools required and precautions to be taken.

(NEW) Sec. 16-280b-A37. Protection from shear or tensile stresses

- (a) Anywhere plastic Pipe is connected to a metal tee and anywhere plastic Pipe enters or exits a Conduit, it shall be supported by undisturbed or well-compacted soil. Plastic Pipe 2 inches or less in nominal diameter shall be protected from shear by a shear protection sleeve. Shear protection sleeves shall be secured to the metal tee or Conduit.
- (b) Plastic Pipe pulled or plowed-in during the installation process shall be given sufficient time to cool and contract to its original length prior to joining or sufficient slack shall be placed in the plastic Pipe.
- (c) Any portion of plastic Pipe which spans disturbed earth shall be protected by compaction of the soil under the plastic Pipe, or by other means.

(NEW) Sec. 16-280b-A38. Tracer Wire

- (a) Definition. For purposes of this section and the Federal Regulations, the following definition applies:
 - (1) "Tracer Wire" means an electrically conductive wire used for the purpose of locating a belowground Pipeline.
- (b) Plastic Pipe shall have a Tracer Wire installed, except when inserted into steel pipe.
- (c) When plastic Pipe is inserted in steel pipe, the steel pipe may be used in lieu of Tracer Wire if it is electrically continuous with the Tracer Wire installed for the non-inserted plastic Pipe.
- (d) Where installed, Tracer Wire shall be:
 - (1) coated, solid copper wire with a minimum thickness of 12 gauge;
 - (2) installed with at least 2 inches, but not more than 6 inches of separation from the Pipeline, except in trenchless excavations;
 - (3) accessible from each valve box used for any purpose and each Service Line riser;
 - (4) accessible no greater than 1,000 feet from any point along the Pipeline; and
 - (5) tested for operation prior to the Pipeline Facility being Placed In Service.
- (e) If a Tracer Wire is found inoperable in the test required by subsection (d)(5) of this section, it shall be made operable prior to the Pipeline Facility being Placed In Service.

(NEW) Sec. 16-280b-A39. Pipe in a Conduit

- (a) The Conduit shall be prepared to the extent necessary to remove any sharp edges, projections, dust, welding slag, or abrasive material which could damage the Pipe during or after insertion.
- (b) A device shall be used to prevent the Pipe from being damaged on the end of the Conduit.
- (c) Prior to inserting Pipe, any valves through which the Pipe would be inserted shall be removed. All Abandoned Mains to be used as Conduit shall be inspected with a camera to locate all valves unless the Abandoned Main is short enough such that the entire length can be visually inspected to locate all valves.
- (d) Pipe shall be sealed on the leading edge prior to insertion.
- (e) Welding, brazing or cad welding shall not be performed on a Conduit through which plastic Pipe has been inserted.

(NEW) Sec. 16-280b-A40. Pipe clearances

- (a) A minimum of 12 inches of clearance between belowground Pipelines and all non-Operator owned belowground Utilities shall be maintained unless the:
 - (1) Operator approves a variance;
 - (2) GPSU approves, in writing, prior to the Pipeline being Placed In Service, a variance for a clearance less than 6 inches;
 - (3) GPSU approves, in writing, prior to a non-Operator owned belowground Utility being installed, a variance for a clearance less than 6 inches; and
 - (4) Records of each approved variance include the reason for the variance, the location of the variance, clearance measurements and the protection measure(s) utilized.
- (b) Belowground Pipelines shall not be stacked vertically with other belowground Utilities, except at crossings.

(NEW) Sec. 16-280b-A41. Trenchless excavation

Each Operator installing a Pipeline using trenchless excavation shall inspect the borehole using a camera, unless approved by the GPSU in writing, or if the borehole is short enough such that the entire length of the borehole can be visually inspected, visually inspect the borehole, to ensure that no foreign structures were damaged.

(NEW) Sec. 16-280b-A42. Customer Meters and Service Regulators

- (a) Unless approved by the GPSU in writing, where any Service Line is installed, replaced or relocated:
 - (1) Customer Meters and Service Regulators shall be installed outdoors; and
 - (2) the connection between Operator Piping and customer piping shall be installed at the building wall.
- (b) Unless approved by the GPSU in writing, on or before [INSERT DATE 10 YEARS AFTER EFFECTIVE DATE OF REGULATION]:
 - (1) Customer Meters and Service Regulators shall be located outdoors; and

- (2) the connection between Operator Piping and customer piping shall be located at the building wall.
- (c) If the GPSU approves an exemption to subsection (a) of this section, an outdoor shutoff valve shall be installed in the Service Line prior to being Placed In Service. If the GPSU approves an exemption to subsection (b) of this section, an outdoor shutoff valve shall be installed in the Service Line on or before [INSERT DATE 10 YEARS AFTER EFFECTIVE DATE OF REGULATION].
- (d) No later than [INSERT DATE 4 YEARS AFTER EFFECTIVE DATE OF REGULATION] each Operator shall:
 - (1) Mark each Customer Meter to identify the unit being served where more than one Customer Meter receives Gas from a single Service Line.
 - (2) Visibly post Operator name and emergency contact information on each Customer Meter and Petroleum Gas container.
 - (3) Protect aboveground portions of Service Lines that are at risk of damage in any of the following locations:
 - (A) directly in an area of expected vehicle traffic;
 - (B) 4 feet or less from an area of expected vehicle traffic and in the direction of normal vehicle travel; or
 - (C) any other location where activities present a hazard.
 - (4) The protection required in subsection (d)(3) of this section shall consist of either of the following:
 - (A) Posts meeting the following requirements:
 - (i) constructed of concrete filled steel and not less than 4 inches in nominal diameter;
 - (ii) spaced no greater than 4 feet on center;
 - (iii) set no less than 2 feet belowground in a concrete footing no less than 9 inches in diameter;
 - (iv) extending vertically at least 3 feet above the ground; and
 - (v) located not less than 1 foot in front of the protected object.
 - (B) Alternative physical protection designed to resist anticipated loading, provided the design is evaluated for adequacy or experience demonstrates its effectiveness.

(NEW) Sec. 16-280b-A43. Protection from vacuum or backpressure

Any device required pursuant to 49 CFR 192.355(a), as amended from time to time, shall be owned and maintained by the Operator.

(NEW) Sec. 16-280b-A44. Pipelines under structures

- (a) Pipelines are not to be installed in any non-accessible areas underneath buildings, unless approved by the GPSU in writing.
- (b) Pursuant to 49 CFR 192.613, as amended from time to time, and section 16-280b-A58 of the Regulations of Connecticut State Agencies, each Operator shall surveil for areas where any Pipeline exists in a non-accessible area underneath a building. Upon discovery, the Operator has 180 calendar days to either have the building removed or have the affected portion of the Pipeline relocated, unless an extension is approved by the GPSU in writing.

(NEW) Sec. 16-280b-A45. Excess flow valve testing

- (a) Each Operator shall test the functionality of Service Line excess flow valves at the time of installation in all locations where a test can be performed safely, and the operating pressure is adequate to perform the test.
- (b) The test shall consist of introducing a medium through the excess flow valve at a high flow rate, verifying shutoff, and resetting the device.
- (c) If the excess flow valve does not operate as designed, it shall be replaced immediately.

(NEW) Sec. 16-280b-A46. Installation of cathodic protection systems

Installation of cathodic protection systems shall be in accordance with Section 8 of the latest edition of the Association for Materials Protection and Performance Control of External Corrosion on Underground or Submerged Metallic Piping Systems, NACE SP0169.

(NEW) Sec. 16-280b-A47. Cathodic protection systems

Each Pipeline under cathodic protection not required by 49 CFR 192, as amended from time to time, shall comply with 49 CFR 192.453, 49 CFR 192.463, 49 CFR 192.465(a) to (d), inclusive, 49 CFR 192.467, 49 CFR 192.469, 49 CFR 192.471 and 49 CFR 192.473, all as amended from time to time.

(NEW) Sec. 16-280b-A48. Active Corrosion

- (a) Definition. For purposes of this section and the Federal Regulations, the following definition applies:
 - (1) “Active Corrosion” means the definition contained in 49 CFR 192.3, as amended from time to time, and anywhere there are 3 or more corrosion leaks within any 400-foot diameter in the previous 10 years on non-cathodically protected Pipelines.
- (b) Pipelines shall be cathodically protected not later than 1 year or replaced not later than 3 years after Active Corrosion is identified.

(NEW) Sec. 16-280b-A49. Examination of buried Pipeline when exposed

- (a) Any inspection conducted pursuant to 49 CFR 192.459, as amended from time to time, shall include examination for disbonded coatings.
- (b) Any damaged coating on a cathodically protected Pipeline found pursuant to 49 CFR 192.459, as amended from time to time, shall be remediated not later than 6 months after being discovered.

(NEW) Sec. 16-280b-A50. Corrosion protective coating

- (a) Pursuant to 49 CFR 192.461(c), as amended from time to time, coated steel Pipe shall be electrically inspected after or immediately prior to lowering in the trench using a holiday detector, if the type of coating allows for electrical inspection at the time of installation.
- (b) The coating repair required pursuant to 49 CFR 192.461(c), as amended from time to time, shall be performed prior to backfilling.

(NEW) Sec. 16-280b-A51. Cathodic protection

Pursuant to 49 CFR 192 Appendix D, as amended from time to time:

- (1) Only depolarized voltages acquired during the previous 5 years may be used to demonstrate a 100-millivolt shift under section I.A.3.
- (2) Determination of the voltage measurement in section II shall be made in accordance with one of the following:
 - (A) For impressed current systems:
 - (i) Interrupting the current and measuring the instant-off potential, or
 - (ii) Using engineered coupons.
 - (B) For galvanic anode systems, the reading shall be taken as close to the Pipeline as practical.

(NEW) Sec. 16-280b-A52. Corrosion monitoring remedial action

- (a) The prompt remedial action required pursuant to 49 CFR 192.465(d), as amended from time to time, shall occur in a reasonably expedited manner and in no case later than the next regularly scheduled test, survey, inspection or check, unless an extension is approved by the GPSU in writing.
- (b) The prompt remedial action required pursuant to 49 CFR 192.465(d), as amended from time to time, for separately protected short sections of Mains, not in excess of 100 feet, or separately protected Service Lines, shall occur not later than 1 year after the deficiency is discovered.

(NEW) Sec. 16-280b-A53. Electrical isolation

Not later than 1 year after any inadequate electrical isolation is found pursuant to 49 CFR 192.467(d), as amended from time to time, it shall be remediated.

(NEW) Sec. 16-280b-A54. Test Points

- (a) Definition. For purposes of this section, the following definition applies:
 - (1) "Test Point" means a designated location to be used for electrical measurement to determine the adequacy of cathodic protection.
- (b) Sufficient, as used in 49 CFR 192.469, as amended from time to time, means:
 - (1) at least one Test Point per 1,000 feet of Main being cathodically protected by only galvanic anodes;
 - (2) at least one Test Point per 2,500 feet of Main being cathodically protected by impressed current rectifiers;
 - (3) at least two Test Points for any system with over 100 feet of Main;
 - (4) distributed throughout each cathodic protection system;
 - (5) at locations suitable to assess the extremities of each cathodic protection system;
 - (6) adequate to demonstrate the functionality of bonds;
 - (7) not within groundbed or anode gradients, as practicable; and,
 - (8) at each metallic Conduit greater than 10 feet in length with metallic contacts for both the Conduit and the Main.
- (c) A Test Point shall be added in any location where Pipe under cathodic protection is exposed to repair a corrosion leak, unless a Test Point currently exists within 500 feet of the leak.

(NEW) Sec. 16-280b-A55. Interference currents

- (a) Each Operator shall investigate areas where interfering currents are suspected. During these investigations, personnel shall be alert for electrical or physical conditions which could indicate interference from a neighboring source.
- (b) Not later than 6 months after suspected interference is identified, the Operator shall conduct appropriate electrical tests to determine the extent of interference and take appropriate action(s) based on test results.

(NEW) Sec. 16-280b-A56. Corrosion remediation

The remediation required pursuant to 49 CFR 192.475(b)(2), 49 CFR 192.475(b)(3), 49 CFR 192.481(c), 49 CFR 192.487 or 49 CFR 192.489, all as amended from time to time, shall be completed not later than 1 year after the deficiency is discovered.

(NEW) Sec. 16-280b-A57. Review of employee work

- (a) Each Operator shall periodically review the work done by any Person to determine the effectiveness and adequacy of each Procedure, other than Job-Specific Procedures, at least once every 3 calendar years, but at intervals not exceeding 39 months. If a specific Procedure was not performed during the interval, the Operator shall instead perform a simulated review of the Procedure.
- (b) The review of employee activities required pursuant to 49 CFR 192.615(b)(3), as amended from time to time, shall include modifying the Procedures when deficiencies are discovered.

(NEW) Sec. 16-280b-A58. Continuing surveillance

- (a) Continuing surveillance required pursuant to 49 CFR 192.613, as amended from time to time, shall include a review of all Pipeline Facilities to ensure compliance with Federal Regulations, State Regulations and Procedures at the following intervals:
 - (1) at least once each calendar year, but at intervals not exceeding 15 months in Business Districts; and
 - (2) at least once every 3 calendar years, but at intervals not exceeding 39 months in all other areas.
- (b) Any deficiencies found during continuing surveillance shall be remediated prior to the next inspection required by subsection (a) of this section.

(NEW) Sec. 16-280b-A59. Damage prevention

After the repair of any excavation damage to a Gas facility, the Operator shall perform a leakage survey in the area of the damage. If the damage was on a Service Line, the entire Service Line shall be leakage surveyed. If the damage was on a Main, all Mains within a 300-foot radius from the damage shall be leakage surveyed.

(NEW) Sec. 16-280b-A60. Accidents

- (a) Each Operator shall use every effort to properly warn and protect the public from danger and shall exercise all practicable care to reduce the hazard to which employees, customers and others may be subjected by reason of its equipment and facilities.
- (b) Each Operator shall assist the Authority in promptly examining the causes of and the circumstances connected with all fatal accidents and other accidents of a serious nature.

(NEW) Sec. 16-280b-A61. Failure analysis

- (a) The failure investigation required pursuant to 49 CFR 192.617, as amended from time to time, shall be completed not later than 1 year after the failure, unless an extension is approved by the GPSU in writing.
- (b) Each Operator shall provide the GPSU a copy of each failure analysis report completed or received by the Operator, concerning any Incident or failure investigation performed pursuant to 49 CFR 192.617, as amended from time to time, not later than 5 calendar days after completion or receipt of such report.

(NEW) Sec. 16-280b-A62. Maximum Allowable Operating Pressure

Pipelines shall not be operated at a pressure that would cause stress anywhere in the Pipe to equal or exceed 20 percent of the specified minimum yield strength of the Pipe material.

(NEW) Sec. 16-280b-A63. Maintenance of utilization pressure

The pressure of the Gas, measured at the outlet of the Customer Meter, shall be maintained at a pressure that shall provide safe, efficient utilization of the Gas as a fuel in any customer's properly selected and adjusted Gas utilization equipment.

(NEW) Sec. 16-280b-A64. Odorization of Gas

Each Operator shall take immediate remedial action if odorization levels do not meet the prescribed limits of 49 CFR 192.625, as amended from time to time.

(NEW) Sec. 16-280b-A65. Tapping Pipelines under pressure

Each Operator shall ensure the correct Pipe is going to be tapped prior to tapping, except for tapping to determine pressure.

(NEW) Sec. 16-280b-A66. Purging of Pipelines

- (a) All purging shall comply with the latest edition of the American Gas Association Purging Manual.
- (b) The venting of Gas during purging shall not occur inside any building or confined space.
- (c) Metallic components used in the venting of Gas during purging shall be grounded.

(NEW) Sec. 16-280b-A67. Leak repair

- (a) Mechanical leak repair clamps shall not be used as a permanent repair method for plastic Pipe.
- (b) Mechanical leak repair clamps may be used as a temporary repair method for plastic Pipe if:
 - (1) the manufacturer of the clamp certifies its use as a temporary repair;
 - (2) the clamp is not backfilled;
 - (3) the clamp is not in use for more than 120 calendar days; and
 - (4) the clamp is checked for Gas leakage at least once each calendar week, but at intervals not exceeding 9 calendar days.

(NEW) Sec. 16-280b-A68. Leakage surveys

- (a) The leakage surveys required pursuant to 49 CFR 192.723, as amended from time to time, shall:
 - (1) be conducted at least once each calendar year, but at intervals not exceeding 15 months for all Mains and belowground Petroleum Gas tanks, and at least once every 3 calendar years, but at intervals not exceeding 39 months for all Service Lines outside of Business Districts; and

- (2) include any reasonably accessible and apparent belowground piping downstream of any Customer Meter to the customer's structure or to any Gas utilization equipment if such equipment is located outdoors.
- (b) Annually from December first through April first, all cast-iron Pipe shall be leakage surveyed for Grade 1 Leaks at intervals not exceeding 15 calendar days.
- (c) Each Operator shall conduct leakage surveys under the following circumstances:
 - (1) Prior to paving or resurfacing, where Street alterations or repairs could have damaged any Pipeline;
 - (2) In areas where construction could have damaged any Pipeline;
 - (3) Unstable soil areas where Pipelines could be affected; and
 - (4) In areas and at times of unusual activity that could have damaged any Pipeline, such as earthquakes, floods, and explosions.
- (d) When an Operator enters a customer's premises for the purpose of inspecting or servicing any Gas utilization equipment, a leakage survey shall be conducted at appropriate locations, including atmosphere samples, and at all Utility service entrances. In multiple-occupancy buildings, an individual apartment or dwelling unit shall constitute the customer's premises.
- (e) Each Operator shall protect against Pipeline damage from Barholes.
- (f) A leakage survey of a belowground leak that has been repaired shall be completed not later than 30 calendar days after the date of repair. A leak is considered eliminated when there are no longer any sustained subsurface Gas readings on a CGI in the area of that leak or if there is no indication of a leak during a Pressure Drop Test. If 30 calendar days after a repair, sustained subsurface Gas readings exist, the original leak shall be considered eliminated and a new leak shall be classified.

(NEW) Sec. 16-280b-A69. Abandonment or deactivation of facilities

- (a) Not later than 1 year after all customers are no longer being billed for the use of the Service Line, each Operator shall Abandon all Service Lines, except for cathodically protected steel or plastic Service Lines, which shall be Abandoned not later than 5 years.
- (b) Not later than 6 months after a Service Line is Placed In Service for a customer, all other Service Lines supplying that customer, where the customer is no longer being billed for the use of the other Service Line(s), shall be Abandoned.
- (c) Not later than 90 calendar days after only a Curb Valve is closed to terminate service to a customer, the Service Line shall be Abandoned.
- (d) Abandonment of Service Lines shall include:
 - (1) disconnecting the Service Line at the connection to the Main, unless the Service Line is Abandoned by Abandoning a Main;
 - (2) closing all Curb Valves;
 - (3) removing the top section of valve boxes or Vaults and filling the void with suitable compacted material, except for valve boxes or Vaults set in concrete or asphalt, which shall be filled with suitable compacted material to an appropriate distance from the top of the valve box or Vault and then filled completely with suitable paving material;
 - (4) removing any aboveground portion of the Service Line and capping the Service Line at an appropriate depth belowground; and
 - (5) capping the end of the Service Line inside the building as close to the building wall as practical when a Service Line enters a building belowground.
- (e) Previously Abandoned pipe shall not be used in the Transportation of Gas.

(NEW) Sec. 16-280b-A70. Inspection and testing of Gate Stations and District Regulator Stations

- (a) Inspections conducted pursuant to 49 CFR 192.739(a), as amended from time to time, shall include:
- (1) removal, inspection, and replacement, if necessary, of all filters;
 - (2) inspection, testing, and maintenance, if necessary, of any heating equipment;
 - (3) verification of compliance with section 16-280b-A22 of the Regulations of Connecticut State Agencies; and
 - (4) a final inspection that ensures proper position of all valves and restoration of all security devices.
- (b) Deficiencies found during the inspections required pursuant to 49 CFR 192.739, as amended from time to time, and this section shall be remediated prior to the Gate Station or District Regulator Station being returned to service if the deficiency affects the safe operation of the station but in no case shall remediation occur later than 1 year from the date of inspection.

(NEW) Sec. 16-280b-A71. Service Regulators – maintenance

Where a Service Regulator and a monitoring regulator are used on a Service Line, they shall be maintained pursuant to 49 CFR 192.739(a), as amended from time to time, and section 16-280b-A70 of the Regulations of Connecticut State Agencies, at least once every 3 calendar years, but at intervals not exceeding 39 months.

(NEW) Sec. 16-280b-A72. Telemetry or recording gauges

Any confirmed abnormally high or low pressure found pursuant to 49 CFR 192.741(c), as amended from time to time, shall be remediated immediately.

(NEW) Sec. 16-280b-A73. Capacity of relief devices

Any deficiencies found pursuant to 49 CFR 192.743, as amended from time to time, shall be remediated immediately, unless approved by the GPSU in writing.

(NEW) Sec. 16-280b-A74. Valve maintenance

- (a) Valve maintenance required pursuant to 49 CFR 192.747, as amended from time to time, shall include:
- (1) checking alignment to ensure a key or wrench can operate the valve;
 - (2) clearing any debris from the valve box or Vault that would interfere with or delay the operation of the valve;
 - (3) checking for adequate lubrication;
 - (4) partial operation; and
 - (5) verification of the correct valve position.
- (b) Curb Valves on Service Lines where the Customer Meter is located inside the structure, and there is no outside aboveground Service Line valve, shall be inspected

at least once every 5 calendar years, but at intervals not exceeding 63 months. Any deficiencies found shall be remediated not later than 1 year after discovery.

- (c) The prompt remedial action required pursuant to 49 CFR 192.747(b), as amended from time to time, shall occur in a reasonably expedited manner and in no case later than the next regularly scheduled check.

(NEW) Sec. 16-280b-A75. Prevention of accidental ignition

If an uncontrolled release of Gas to the atmosphere in an area of work is possible, a Class B fire extinguisher shall be available upwind within 10 feet of the area.

(NEW) Sec. 16-280b-A76. Threat identification

Not later than 10 calendar days after receipt of an alert, advisory bulletin, recommendation or similar notification from the National Transportation Safety Board, Pipeline and Hazardous Materials Safety Administration, trade organizations, GPSU, or similar organizations, each Operator shall take appropriate action to review its Procedures and Pipeline Facilities to identify if modifications are required and shall report to the GPSU the results of the review including a timeframe for the completion of any modifications required.

Sec. 6. The Regulations of Connecticut State Agencies are amended by adding sections 16-280b-B1 to 16-280b-B32, inclusive, as follows:

(NEW) Sec. 16-280b-B1. Natural Gas Operators

Sections 16-280b-B2 to 16-280b-B32, inclusive, of the Regulations of Connecticut State Agencies, apply to each Operator that transports natural Gas.

(NEW) Sec. 16-280b-B2. Procedures

- (a) Each Procedure shall include why the Procedure is necessary, what action is performed, who performs the action, when the action is performed, where the action is performed, how the action is performed, and the documentation required. If any additional actions are required after performing any Procedure, the Procedure shall explain that additional process.
- (b) Each Operator shall provide the GPSU copies or access to all Procedures, other than Job-Specific Procedures.
- (c) Each Operator shall provide the GPSU notice and copies or access to all Procedures, other than Job-Specific Procedures, which have been revised, substituted or amended at least 10 calendar days prior to implementation, except where prevented by unavoidable circumstances, in which case, notice and copies or access shall be provided as soon as practicable. The revised, substituted or amended Procedures shall be annotated to show all revisions.

(NEW) Sec. 16-280b-B3. Organizational charts

- (a) Each Operator shall submit an organizational chart to the GPSU in January and July of each year, including the names and titles of all personnel directly or indirectly involved in the Transportation of Gas.
- (b) The organizational chart in subsection (a) of this section shall include positions from President to field personnel, including personnel responsible for:
 - (1) general management duties;
 - (2) emergency response;
 - (3) engineering;
 - (4) operations;
 - (5) meter service/repair;
 - (6) safety;
 - (7) design;
 - (8) construction;
 - (9) maintenance;
 - (10) training;
 - (11) operator qualification;
 - (12) gas control;
 - (13) Peaking Facilities; and
 - (14) dispatch of field personnel
- (c) Concurrent with the submission in subsection (a) of this section, each Operator shall submit:
 - (1) contact information, including cell phone numbers and email addresses for all personnel responsible for management or supervisory functions;
 - (2) a telephone number for reporting emergencies; and
 - (3) a current address for, and recipients of, official correspondence.
- (d) Each Operator shall notify the GPSU as soon as practicable but no later than 14 calendar days following any changes to the information in subsection (c) of this section.

(NEW) Sec. 16-280b-B4. Notifications and reporting

- (a) Each Operator shall submit the following for all planned Covered Tasks pertaining to construction, pressure management, leak repair and Abandonment to be performed on Pipeline Facilities to the GPSU no later than 8:30 AM of the day the Covered Task(s) are to be performed:
 - (1) the name of the person with primary responsibility;
 - (2) the company;
 - (3) the location, including the nearest Street address or nearest intersection of two Streets;
 - (4) a description of work to be performed, including Pipeline Facility characteristics where available;
 - (5) inspectors and supervisors assigned; and
 - (6) whether occurring outside normal business hours.
- (b) Each Operator shall provide notification to the GPSU of planned activity involving the following at least 3 weeks prior to commencement of the activity:
 - (1) construction or modifications at a Peaking Facility, Gate Station or District Regulator Station with a planned cost exceeding \$100,000;

- (2) construction of river crossings of 50 feet or greater as measured at the mean water line;
- (3) construction of bridge crossings and railroad crossings;
- (4) upratings and Upgradings; and
- (5) horizontal directional drilling over 100 feet.
- (c) The notification required by subsection (b) of this section shall include:
 - (1) a copy of the design drawings and specifications for subsections (b)(1), (b)(2), and (b)(3) of this section;
 - (2) a copy of the Procedure for subsection (b)(4) of this section;
 - (3) the planned activity start date;
 - (4) the estimated activity duration; and
 - (5) the name, email address and telephone number of the person to be contacted concerning the activity.
- (d) Each Operator shall report data on all repaired Grade 1 Leaks and Grade 2 Leaks in electronic format to the GPSU for the prior calendar month by the 15th of each month.
- (e) No later than the 15th of each month, each Operator shall submit to the GPSU, a tabulation of responsiveness to reports of suspected Gas odors and potential leaks for the prior calendar month. The submittal shall include:
 - (1) all available data from the current calendar year up to and including the prior calendar month and the data from the previous calendar year; and
 - (2) for any response time more than 30 minutes during normal business hours and 45 minutes at all other times:
 - (A) a detailed explanation for the delay in response; and
 - (B) a detailed timeline that includes:
 - (i) time call was received;
 - (ii) time call was dispatched;
 - (iii) time a Qualified person arrived onsite; and,
 - (iv) times fire department was contacted and arrived onsite, if applicable.
- (f) No later than 15th of the month following the end of each quarter (April, July, October, January), each Operator shall submit to the GPSU a tabulation of the Grade 2 Leak and Grade 3 Leak statuses including the beginning balance, leaks detected, leaks repaired, other disposition, ending balance, from the prior quarter. The submittal shall report Grade 3 Leaks on plastic Pipe and coated and cathodically protected steel Pipe, classified Grade 3 Leaks on aboveground Pipe and Environmentally Significant Grade 3 Leaks separately from all other Grade 3 Leaks. The submittal shall include all available data from the current calendar year and the data from the previous calendar year.

(NEW) Sec. 16-280b-B5. Contractors and consultants

Each Operator shall provide notification of any contractor or consultant performing any Covered Tasks, to the GPSU, including the name of the contractor or consultant and the general scope of provided services, except for extensions of existing contracts:

- (1) as soon as practicable but no later than 5 business days after executing or terminating an agreement; and
- (2) prior to performing a Covered Task.

(NEW) Sec. 16-280b-B6. Street construction

Annually, no later than February first of each year, each Operator shall formally request, in writing, a list of Streets to be reconstructed or resurfaced, or both, during the calendar year, from each entity having jurisdiction over the maintenance of said Streets in its service territory. This annual request shall be mailed via certified mail or personally delivered to the appropriate entity representative. The request is not required if the Operator already has a list of Streets to be reconstructed or resurfaced or has immediate electronic access to such information.

(NEW) Sec. 16-280b-B7. Quality Assurance/Quality Control

- (a) Each Operator shall establish a Quality Assurance/Quality Control Program to determine the effectiveness and adequacy of its Procedures and to modify any Procedures when deficiencies are discovered. The Quality Assurance/Quality Control Program shall also ensure that all Procedures are followed.
- (b) The Quality Assurance/Quality Control Program shall include:
 - (1) audits of the performance of Covered Tasks to ensure compliance with Federal Regulations, State Regulations and Procedures;
 - (2) audits of Records;
 - (3) post-construction audits to visually inspect aboveground and belowground Pipeline Facilities;
 - (4) audits based on the risk associated with the Covered Tasks being performed;
 - (5) audits based on the risk associated with the person(s) performing the Covered Tasks;
 - (6) all results and corrective actions being tracked and documented;
 - (7) a process to communicate all identified deficiencies with all persons, or their respective employers, that perform the function from which the deficiencies were discovered; and
 - (8) a process to promptly analyze findings and develop corrective actions towards continuous improvement of the Quality Assurance/Quality Control Program and its Procedures.
- (c) The Quality Assurance/Quality Control Program, of any Public Service Company as defined in section 16-1 of the Connecticut General Statutes, shall be operated as an independent group that reports directly to the President of said Public Service Company.

(NEW) Sec. 16-280b-B8. Extra High Pressure Pipeline requirements

Installation of Pipelines, other than Gate Stations, District Regulator Stations and repairs to Pipelines, with an MAOP more than 250 pounds per square inch gauge, shall require approval of the Authority.

(NEW) Sec. 16-280b-B9. Materials

Steel or polyethylene shall be installed for Mains and Service Lines, unless approved by the GPSU in writing.

(NEW) Sec. 16-280b-B10. Valves

- (a) On or before [INSERT DATE 10 YEARS AFTER EFFECTIVE DATE OF REGULATION], valves shall be in the following locations:
 - (1) on High Pressure Mains to ensure approximately 1000 Customer Meters are supplied between valves;
 - (2) at both sides of the crossing, where a Pipeline:
 - (A) crosses a navigable waterway or body of water;
 - (B) is buried directly under an active railroad;
 - (C) is buried directly under a controlled access highway; or
 - (D) is attached to a bridge.
 - (3) upstream of all Gate Stations and District Regulator Stations such that a valve, regardless of ownership, is located between a 25 and 100-foot radius upstream of the inlet of the pressure regulating or relieving device;
 - (4) downstream of all Gate Stations and District Regulator Stations such that a valve, regardless of ownership, is located between a 25 and 100-foot radius downstream of the outlet of the pressure regulating or relieving device; and
 - (5) at the outlet of all Peaking Facilities.
- (b) All valves required by subsection (a) of this section, shall be designated as Emergency Valves.
- (c) All aboveground Emergency Valves shall have a durable identifying tag, stamp, or other device affixed to the valve. All belowground Emergency Valves shall have a readily observable and durable identifying tag, stamp or other device affixed to the valve box such that it shall not permanently interfere with the valve operation and shall not be defaced or dislocated by normal operations.
- (d) All belowground Emergency Valve box covers shall be painted yellow.
- (e) Valve box covers shall be permanently labeled with the word "GAS".

(NEW) Sec. 16-280b-B11. Enclosures

- (a) If enclosed, individual pressure regulating or relieving devices in the same system shall be in at least two separate physical enclosures such that damage to one enclosure does not render device(s) in the other enclosure inoperable. This subsection does not apply to support or pilot devices required to allow the operation of a pressure regulating or relieving device.
- (b) Equipment located in belowground enclosures shall be designed to continue operating normally if submerged.
- (c) Snow or ice accumulation that would significantly delay access to a Vault shall be removed as soon as practicable after the accumulation.

(NEW) Sec. 16-280b-B12. Gate Stations and District Regulator Stations

- (a) Gate Stations and District Regulator Stations shall be constructed of non-combustible materials.

- (b) Any fences around Gate Stations and District Regulator Stations shall be provided with at least two means of egress.

(NEW) Sec. 16-280b-B13. Service Regulators

- (a) Definition. For purposes of this section and the Federal Regulations, the following definition applies:
 - (1) "Source Of Ignition" means devices or equipment that, because of their modes of use or operation, can provide sufficient thermal energy to ignite flammable mixtures and will permit the propagation of flame away from them.
- (b) Service Regulators shall be installed aboveground only.
- (c) Service Regulators shall not be located belowground after [INSERT DATE 10 YEARS AFTER EFFECTIVE DATE OF REGULATION]
- (d) Any customer's piping being supplied through a Service Regulator shall be protected by a suitable safety device to prevent the development of pressures more than:
 - (1) two pounds per square inch gauge for Service Regulators designed to deliver Gas at Low Pressure; or
 - (2) the limits established pursuant to 49 CFR 192.201(a)(2), as amended from time to time, for Service Regulators designed to deliver Gas at High Pressure.
- (e) On or before [INSERT DATE 4 YEARS AFTER EFFECTIVE DATE OF REGULATION], Service Regulator vent outlets shall be located at least:
 - (1) 12 inches to the side and 18 inches above and below any building opening;
 - (2) 3 feet in any direction from any exterior Source Of Ignition; and
 - (3) 5 feet in any direction from any forced air intake.

(NEW) Sec. 16-280b-B14. Vents

- (a) Vent outlets for equipment located in a belowground enclosure shall terminate aboveground, except for vent outlets from Service Regulators.
- (b) Vent outlets shall be located above the maximum anticipated water level, be protected against insects, foreign matter, and rain infiltration.

(NEW) Sec. 16-280b-B15. Distribution system pressure limitations

The pressure that may not cause the unsafe operation of any connected and properly adjusted Gas utilization equipment required pursuant to 49 CFR 192.201(a)(1), as amended from time to time, shall mean two pounds per square inch gauge.

(NEW) Sec. 16-280b-B16. Joining of materials other than by welding

Each joint that will be belowground after being Placed In Service, shall be inspected after completion by an individual other than the person who made the joint.

(NEW) Sec. 16-280b-B17. Inspections

- (a) Each Operator shall perform daily inspections of construction related Covered Tasks with a maximum of three crews per inspector, except due to short-term staff absences.
- (b) New construction contractors and new crew leaders of existing construction contractors shall be inspected while performing construction related Covered Tasks until clear competency in performing the applicable Covered Tasks has been demonstrated.

(NEW) Sec. 16-280b-B18. Cover

- (a) Belowground Mains, except at transitions to aboveground Mains, shall be installed with a minimum cover of 30 inches. Appurtenances installed on Mains do not need to comply with this requirement.
- (b) Belowground Service Lines, except for risers that terminate aboveground, shall be installed with a minimum cover of 24 inches unless the:
 - (1) Operator approves a variance;
 - (2) GPSU approves, in writing, prior to the Pipeline being Placed In Service, a variance for cover less than 12 inches; and
 - (3) Records of each approved variance include the reason for the variance, the location of the variance, cover measurements and the protection measure(s) utilized.

(NEW) Sec. 16-280b-B19. Corrosion qualifications

Qualified, as used in 49 CFR 192.453, as amended from time to time, means at least 4 years of experience in Pipeline corrosion control methods and possession of an Association for Materials Protection and Performance certification of CP3 - Cathodic Protection Technologist or equivalent.

(NEW) Sec. 16-280b-B20. Pressure testing

- (a) Any pressure test performed pursuant to 49 CFR 192, Subpart J, as amended from time to time, shall:
 - (1) be conducted using a gauge such that the test pressure is in the middle third of the range of the gauge;
 - (2) be conducted at a test pressure of at least 150 percent of the desired MAOP or 90 pounds per square inch gauge, whichever is greater;
 - (3) not be conducted against any valve separating the section being pressure tested from a Pipeline containing Gas, unless approved by the GPSU in writing; and
 - (4) be of a minimum duration in accordance with 49 CFR 192, Subpart J, as amended from time to time, or Table B20-1, whichever is greater.

Table B20-1 – Minimum Pressure Test Duration

Pipeline Length (feet)	Nominal Pipe Diameter (Inches)		
	2 and less	>2 to <8	8 and up
< 200	15 min	30 min	1 hour
200 to <1,000	30 min	2 hours	4 hours
1,000 to <2,500	1 hour	4 hours	6 hours
2,500 to 5,000	2 hours	6 hours	12 hours *
> 5,000	3 hours	8 hours *	24 hours *

* A leakage survey shall be conducted between 3 and 14 calendar days after the Pipeline is pressurized with Gas.

- (b) Prior to applying any pressure test medium, the Pipeline being tested shall be opened to atmosphere to verify that no positive Gas pressure exists in the section to be tested.
- (c) The pressure test medium shall not be Gas when pressure testing a section of existing Low Pressure Main to allow for operation at High Pressure.

(NEW) **Sec. 16-280b-B21. Upratings and Upgradings**

(a) Upratings and Upgradings shall meet the following requirements:

- (1) Shall only be performed on polyethylene or coated and cathodically protected steel Pipelines.
- (2) Shall not be permitted where the pressure will be increased from Low Pressure to High Pressure, unless approved by the GPSU in writing.
- (3) Shall not be permitted where Service Lines are located inside a building, unless approved by the GPSU in writing.
- (4) Prior to the uprating or Upgrading:
 - (A) Each Operator shall ensure, through system modelling, that adequate pressure(s) will be maintained in the adjacent Pipeline(s) after isolation of the Pipeline undergoing uprating or Upgrading.
 - (B) All customers served by the Pipeline(s) undergoing the uprating or Upgrading shall be provided notification.
 - (C) A leakage survey shall be performed on the Pipeline(s) undergoing uprating or Upgrading not later than 30 calendar days after the first incremental pressure increase.
 - (D) All leaks on the Pipeline(s) undergoing the uprating or Upgrading shall be repaired.
- (5) Any Service Regulator found functioning improperly pursuant to 49 CFR 192.557(b)(6), as amended from time to time, shall be remediated prior to providing service to the customer.
- (6) Pressure shall be monitored in each adjacent Pipeline to ensure that adequate pressure is maintained.

- (7) The MAOP in the Pipeline(s) undergoing the uprating shall be the highest pressure obtained at the approximate system endpoint(s) or Gas flow null point(s). The approximate system endpoint(s) or Gas flow null point(s) shall be determined by system modeling. For Upgradings, the highest pressure obtained shall be no more than one pound per square inch gauge less than the MAOP.
- (8) Leakage surveys shall begin immediately and be completed not later than 8 hours after each incremental pressure increase.
- (9) All Grade 1 Leaks and Grade 2 Leaks on the Pipeline(s) undergoing the uprating or Upgrading shall be repaired prior to the next incremental pressure increase. All leaks on the Pipeline(s) undergoing the uprating or Upgrading shall be repaired no later than 72 hours after completion of the leakage survey associated with the final pressure increase.
- (10) An additional leakage survey of the Pipeline(s) undergoing the uprating or Upgrading shall be performed no sooner than 24 hours and no later than 7 calendar days after completion of the leakage survey associated with the final pressure increase.
- (b) Upgradings shall follow the uprating requirements found in 49 CFR 192, Subpart K, as amended from time to time, unless approved by the GPSU in writing.

(NEW) Sec. 16-280b-B22. Maps and Records

- (a) On or before [INSERT DATE 5 YEARS AFTER EFFECTIVE DATE OF REGULATION], each Operator shall utilize a GIS to accurately map the location, using Global Positioning System coordinates, or equivalent methods, of all Mains and Service Lines.
- (b) The following information, as applicable, shall be accessible through the GIS for each Main and Service Line and be maintained for the life of such facilities:
 - (1) date of installation;
 - (2) material description;
 - (3) Pipe size;
 - (4) Pipe wall thickness or standard dimension ratio;
 - (5) manufacturer;
 - (6) date of manufacture;
 - (7) all relevant identification numbers for materials and components, including model, serial, batch, lot and heat numbers;
 - (8) pressure regulating or relieving device installed interchangeable components, such as orifice size, core size and spring pressure range;
 - (9) maximum design pressure;
 - (10) specified minimum yield strength;
 - (11) hydrostatic design basis;
 - (12) MAOP;
 - (13) depth, at intervals of no more than 40 feet and at any location where depth changes significantly;
 - (14) locations where Pipe was subject to section 16-280b-B18(b)(1) of the Regulations of Connecticut State Agencies or has less cover than was required at the time of installation;
 - (15) locations where Pipe has less than 12 inches of clearance from non-Operator owned belowground Utilities;
 - (16) locations where Pipe was inserted into a Conduit;
 - (17) locations where plastic Pipe has been squeezed-off;

- (18) locations of inoperable valves;
 - (19) location of each weld and the name(s) of the Welder(s) or Welding Operator(s) that performed said welding;
 - (20) location of each plastic Pipe joint and the name of the person that performed said joining; and
 - (21) the geospatial limits of each cathodic protection system and all Pipe segments included in each of these systems.
- (c) For Pipeline Facilities that existed prior to [INSERT DATE 5 YEARS AFTER EFFECTIVE DATE OF REGULATION], the information required in subsection (b) of this section, is limited to readily available data and new information gained over time through normal activities.

(NEW) Sec. 16-280b-B23. Damage prevention

- (a) The actions required by section 16-345-3(b) of the Regulations of Connecticut State Agencies shall not be performed by contractors.
- (b) Each Operator shall define the limits of blasting near its Pipeline Facilities including:
 - (1) setting limits on the peak particle velocity based on Pipe material, Pipe size and geologic conditions;
 - (2) requiring monitoring of peak particle velocity utilizing appropriate equipment to ensure that the maximum peak particle velocity is not exceeded; and
 - (3) conducting a leakage survey at the end of each blasting sequence for a distance considered adequate to ensure the integrity of the Pipeline Facilities.
- (c) Each Operator shall have a program to inspect excavation activities in the vicinity of their Pipeline Facilities that includes:
 - (1) each calendar year performing a number of inspections at least equal to 2.5 percent of the previous calendar year's number of excavation tickets received;
 - (2) no more than 25 percent of the inspections on excavations being performed by the Operator or by contractors working for the Operator;
 - (3) inspections only being conducted by personnel other than those who performed the markout; and
 - (4) the risk-based selection of inspections, considering the type and duration of excavation activity, the proximity to Pipeline Facilities, the proximity to critical facilities, and the past experience with the excavator.

(NEW) Sec. 16-280b-B24. Emergency plans

- (a) Each Operator shall maintain all reports of suspected Gas odors or potential leaks, including audio recordings of phone calls.
- (b) Each Operator shall offer training at least once each calendar year, but at intervals not exceeding 15 months, to each fire department having responsibilities in the area where the Operator's Pipeline Facilities are located. This offer of training shall inform fire departments of the following:
 - (1) not operating any belowground valves;
 - (2) the hazards involved with extinguishing Gas fed fires; and
 - (3) not going into unoccupied buildings with leaking Gas inside.
- (c) In towns containing Pipeline Facilities operated by more than one Operator, the training shall be coordinated jointly.

(NEW) Sec. 16-280b-B25. Public awareness

- (a) Each Operator shall affix and maintain markers that comply with 49 CFR 192.707(d), as amended from time to time, in a readily visible location on or near:
 - (1) Gate Stations;
 - (2) District Regulator Stations; and
 - (3) buildings or structures used in the Transportation Of Gas
- (b) Each Operator shall affix and maintain in a legible condition, the name of the Operator and an emergency telephone number on each of the following:
 - (1) Customer Meter;
 - (2) Telemetry Equipment; and
 - (3) cathodic protection rectifiers
- (c) Any incorrect Operator names or emergency telephone numbers on a Pipeline Facility shall be removed or covered not later than 30 calendar days after it is discovered or after a change to the Operator name or emergency telephone number, except on Customer Meters where they shall be removed or covered not later than 39 months after a change to the Operator name or emergency telephone number.
- (d) Not later than 30 calendar days after any markers are found deficient with respect to subsections (a) or (b) of this section, they shall be remediated.

(NEW) Sec. 16-280b-B26. Odorization of Gas

- (a) The periodic sampling required pursuant to 49 CFR 192.625(f), as amended from time to time, shall be performed:
 - (1) at least once each calendar month, but at intervals not exceeding 45 calendar days;
 - (2) at sufficient locations to ensure that all Gas within each Pipeline contains the required odorant concentration;
 - (3) at location(s) downstream of each odorant introduction point suitable to assess the extremities or if there are multiple introduction points, the Gas flow null point; and
 - (4) at locations where Gas flow may affect odorant concentrations.
- (b) On or before [INSERT DATE 10 YEARS AFTER EFFECTIVE DATE OF REGULATION], each Gate Station shall contain equipment to introduce odorant properly and safely into each Pipeline.
- (c) Each Operator shall ensure there is adequate odorant and odorant sampling when a new Main is Placed In Service or when portable compressed natural Gas or liquefied natural gas is introduced into any Pipeline.

(NEW) Sec. 16-280b-B27. Control Room management

- (a) All Control Rooms shall:
 - (1) be adequately secured to prevent unauthorized entry;
 - (2) readily provide the MAOP of all Pipelines that are monitored by the Control Room;
 - (3) have alarm setpoints at or below the MAOP of the monitored Pipeline;
 - (4) have alarm setpoints configured such that the failure of any worker pressure regulating device at Gate Stations and District Regulator Stations will generate an alarm, unless the Telemetry Equipment necessary for this alarm is not yet installed,

- then the alarm setpoints shall be configured on or before [INSERT DATE 10 YEARS AFTER EFFECTIVE DATE OF REGULATION]; and
- (5) be tested for at least 8 continuous hours each calendar year to ensure that the equipment is operational and fully functional.
 - (b) Each Operator shall conduct a point-to-point verification between SCADA displays and related field equipment anytime said field equipment is checked for calibration.
 - (c) Each Operator shall have and follow a fatigue management plan validated by a fatigue management professional.
 - (d) Each Operator shall have a training program for any person with no experience as a Controller that includes a minimum of 480 hours of console time shadowing an experienced and Qualified Controller prior to said person being allowed to perform activities independently.
 - (e) Not later than 7 calendar days after any deficiencies are found with the Control Room during the tests required pursuant to subsection (a)(5) of this section or 49 CFR 192.631(c)(4), as amended from time to time, they shall be remediated, unless an extension is approved by the GPSU in writing.

(NEW) Sec. 16-280b-B28. Leaks

- (a) Definition. For purposes of this section, the following definition applies:
 - (1) “Leak Extent” means the surface area of a Gas leak as determined by non-zero CGI readings.
- (b) Leakage surveys shall:
 - (1) take Gas samples as close to the Pipeline as permitted by the instrument; and
 - (2) include tests of the atmosphere in all manholes, at cracks in pavement and sidewalks, and immediately adjacent to structure foundations.
- (c) Barholes shall:
 - (1) be placed adjacent to the Pipeline; and
 - (2) be placed immediately adjacent to structure foundations.
- (d) If any leakage survey indicates the presence of Gas at a structure foundation, the interior of the structure shall be immediately checked for the presence of Gas inside the structure.
- (e) Once an Operator has a GIS pursuant to section 16-280b-B22(a) of the Regulations of Connecticut State Agencies, leakage surveys performed pursuant to 49 CFR 192.723, as amended from time to time, and section 16-280b-A68 of the Regulations of Connecticut State Agencies shall be conducted vertically above belowground Pipelines, and locations captured electronically, using Global Positioning System coordinates and GIS.
- (f) Each Operator shall promptly classify all Gas leaks as they are found, as follows:
 - (1) Grade 1 Leak. A Grade 1 Leak is a leak that represents an existing or probable hazard to persons or property. A Grade 1 Leak is present if any of the following conditions are met:
 - (A) any lower explosive limit or percent Gas-in-air reading on a CGI that indicates natural Gas is entering a building, already exists in a building, is under a building or is in a tunnel;
 - (B) any sustained subsurface reading of 0.5 percent Gas-in-air or more on a CGI within 5 feet of the wall or foundation of a building in a non-continuously paved

- area or within 10 feet of the wall or foundation of a building in a continuously paved area;
 - (C) any sustained reading on a CGI of three percent Gas-in-air or more in the atmosphere of any subsurface structure of sufficient size to accommodate a person, and in which Gas could accumulate;
 - (D) blowing Gas that either creates a serious operating problem or hazard, or has ignited;
 - (E) any Gas leakage caused by third party damage;
 - (F) any indication of belowground Gas migration to an outside wall of a building, or where Gas would likely migrate to an outside wall of a building; or
 - (G) any leak that can be seen, heard, or felt, or is in a location that may endanger the public or property, that in the judgement of the Operator represents an immediate hazard.
- (2) Grade 2 Leak. A Grade 2 Leak is a leak recognized as nonhazardous to persons or property at the time of detection, but justifies scheduled repair based on probable future hazard. A Grade 2 Leak is present if any of the following conditions are met:
- (A) any sustained subsurface reading of 0.5 percent Gas-in-air or more on a CGI between 5 feet and 30 feet from the wall or foundation of a building in a non-continuously paved area or between 10 feet and 30 feet from the wall or foundation of a building in a continuously paved area;
 - (B) any sustained subsurface reading on a CGI of 30 percent Gas-in-air or more beyond 30 feet and up to 50 feet from the wall or foundation of a building;
 - (C) any sustained reading on a CGI of one percent to less than three percent Gas-in-air in the atmosphere of any subsurface structure of sufficient size to accommodate a person, and in which Gas could accumulate;
 - (D) any leak more than 50 feet from the wall or foundation of a building which, in the judgment of the person performing the investigation, is of sufficient magnitude to justify a scheduled repair;
 - (E) a continuous migration pattern of 50 feet or more in, or immediately adjacent to, a Street with a reading on a CGI of more than 20 percent Gas-in-air; or
 - (F) any leak which is currently non-hazardous but based upon the evaluation of the site supervisor, is likely to become hazardous.
- (3) Grade 3 Leak. A Grade 3 Leak is a leak recognized as nonhazardous to persons or property at the time of detection and can be reasonably expected to remain nonhazardous. A Grade 3 Leak is present if there is any leak not classified as a Grade 1 Leak or Grade 2 Leak. Aboveground Grade 3 Leaks do not have to be classified if they are eliminated by lubrication, adjustment, or tightening at the time of detection.
- (4) Environmentally Significant Grade 3 Leak. An Environmentally Significant Grade 3 Leak is a leak that may impact the environment more than other Grade 3 Leaks.

An Environmentally Significant Grade 3 Leak is present if the leak meets the criteria in subsection (f)(3) of this section and:

(A) the highest Barhole reading shows a sustained reading on a CGI of 50 percent Gas-in-air or more; or

(B) the Leak Extent is 2,000 square feet or greater.

(5) Each Operator shall state in its Procedures whether the highest Barhole reading or the Leak Extent will be used for the purposes of determining Environmentally Significant Grade 3 Leaks.

(6) An Operator is not precluded from proposing to the Authority a more rigorous method of designating Environmentally Significant Grade 3 Leaks based on field data or tested and proven technologies that may become available from time to time. Such proposals shall be submitted to the Authority for approval.

(g) Leak Reclassification.

(1) Existing Grade 3 Leaks, Environmentally Significant Grade 3 Leaks, or Grade 2 Leaks that are found to meet more stringent leak classification criteria during any reevaluation shall be immediately reclassified as a Grade 1 Leak, Grade 2 Leak or Environmentally Significant Grade 3 Leak, as appropriate.

(2) Existing Grade 2 Leaks or Environmentally Significant Grade 3 Leaks may be reclassified to a Grade 3 Leak or Environmentally Significant Grade 3 Leak, as appropriate, if any reevaluation indicates said leak now meets the criteria of a Grade 3 Leak or Environmentally Significant Grade 3 Leak.

(h) Leak Response Timeframes.

(1) Each Operator shall respond in person to all reports of suspected Gas odors or potential leaks such that the elapsed time between when the Operator receives said report and the arrival of the Operator is:

(A) 30 minutes or less during normal business hours; or

(B) 45 minutes or less at all other times.

(2) If the Operator's response time is likely to exceed the times listed in subsection (h)(1) of this section, the Operator shall, at the first moment practicable, notify the local fire department having jurisdiction of the location of such report of suspected Gas odor or potential leak, and request the fire department's assistance in responding.

(i) Leak Repair Timeframes.

(1) Grade 1 Leaks require immediate repair or continuous action until the conditions are no longer hazardous and the source of the leak is eliminated, or permanent repairs have been completed.

(2) At the end of each calendar year, each Operator shall have no more outstanding classified leaks than the limits shown in Table B28-1 based on the total mileage of Mains in the Operator's system.

Table B28-1 – Maximum Outstanding Leaks

	<1,000 miles of Main	1,000-3,000 miles of Main	>3,000 miles of Main
Grade 2 Leaks	15	30	45
Grade 3 Leaks on plastic Pipe and coated and cathodically protected steel Pipe	30	60	90

- (3) All Environmentally Significant Grade 3 Leaks that are determined by the highest Barhole reading and any Environmentally Significant Grade 3 Leaks which have a Leak Extent up to and including 10,000 square feet shall be repaired not later than 2 years after the initial classification as an Environmentally Significant Grade 3 Leak. Environmentally Significant Grade 3 Leaks which have a Leak Extent greater than 10,000 square feet shall be repaired not later than 1 year after the initial classification as an Environmentally Significant Grade 3 Leak.
- (4) The GPSU may grant an exception to the timeframes for repair of Environmentally Significant Grade 3 Leaks that are inaccessible, challenging to repair, or under a recently paved Street.
- (j) Reevaluation Timeframes.
- (1) All Grade 2 Leaks shall be reevaluated at least once every 6 months until eliminated.
- (2) All Grade 3 Leaks and Environmentally Significant Grade 3 Leaks shall be reevaluated at least once each calendar year, but at intervals not exceeding 15 months, until eliminated.

(NEW) Sec. 16-280b-B29. Inspection and testing of Gate Stations and District Regulator Stations

- (a) Inspections conducted pursuant to 49 CFR 192.739(a), as amended from time to time, shall include a test of the regulating equipment to ensure that it is capable of completely stopping the flow of Gas.
- (b) Gate Stations and District Regulator Stations shall be inspected at least once each calendar month, but at intervals not exceeding 45 calendar days, to determine that there is no Gas leakage in the station and the equipment is operating correctly.
- (c) The inspection in subsection (b) of this section is not required at a District Regulator Station if equipped with functioning real-time telemetry that includes:
- (1) outlet temperature, if a heater is utilized;
 - (2) odorizer operation, if applicable;
 - (3) water level;
 - (4) Gas detection; and
 - (5) intrusion detection

(NEW) Sec. 16-280b-B30. Telemetry Equipment

- (a) On or before [INSERT DATE 10 YEARS AFTER EFFECTIVE DATE OF REGULATION] Telemetry Equipment shall be installed and transmit the following data:
 - (1) the inlet and outlet pressures at Gate Stations and District Regulator Stations;
 - (2) any data necessary to ensure proper operation of any odorization equipment;
 - (3) the output from fire and Gas detection devices at all Gate Stations;
 - (4) the output from an intrusion detection device on all building doors at Gate Stations;
 - (5) Gas temperature downstream of the last pressure regulating device at a Gate Station or District Regulator Station with Gas heating equipment; and
 - (6) the pressure at sufficient locations downstream of Gate Stations and District Regulator Stations such that the Operator can ensure reliable Gas delivery, such as approximate system endpoints and Gas flow null points based on system modeling. These locations shall be reviewed every 10 years. If necessary, locations shall be relocated not later than 1 year after the review.
- (b) Where environmental or operational hazards have a history of substantially affecting operating pressure in a Pipeline, the Operator shall add Telemetry Equipment to monitor for the hazard.
- (c) Telemetry Equipment shall transmit data at sufficient intervals to ensure the Pipeline Facility is operating safely.
- (d) Data transmitted from Telemetry Equipment shall be monitored from a Control Room, except for data from intrusion detection devices which shall be continuously monitored at a Control Room or a location that handles security.
- (e) Temporary Telemetry Equipment not installed as a requirement of subsections (a) or (b) of this section, does not need to meet the requirements of subsections (c) and (d) of this section.
- (f) Vehicle protection is required for Telemetry Equipment cabinets which contain Gas and where vehicular damage may be anticipated, except where Gas supply is limited by an excess flow valve.
- (g) Each Operator shall have a process for conducting inspections of Telemetry Equipment at least once each calendar year, but at intervals not exceeding 15 months. Not later than 7 calendar days after any deficiencies are found that impact monitoring, they shall be remediated, unless an extension is approved by the GPSU in writing.

(NEW) Sec. 16-280b-B31. Protection of cast-Iron Pipe

- (a) Definitions. For purposes of this section, the following definitions apply:
 - (1) "Angle Of Influence" means a 45° angle above the horizontal plane starting from the bottom edge of the trench nearest to the Main.
 - (2) "Deep Trench" means an excavation more than 5 feet in depth.
 - (3) "Shallow Trench" means an excavation 5 feet or less in depth.
 - (4) "Sheeting" means a bracing or shoring used to support the sides of an excavation to prevent its collapse during an excavation project.
 - (5) "Soft Clay" means earth easily molded by hand, or that has an unconfined compressive strength of 500 to 1000 pounds per square foot.
- (b) Annually, each Operator shall provide a list or map of the Streets that contain cast-iron Pipe to each authority having jurisdiction over any Street and each entity that owns or operates facilities where the Operator's cast-iron Pipe could be affected by excavation. The transmission of such a list or map shall include a request that the

Operator receive notice of any planned excavation projects on these Streets no less than 6 months prior to commencing such project.

(c) Replacement of cast-iron Pipe at trench crossings.

(1) Cast-iron Pipe, 8 inches or less in nominal diameter, shall be replaced as soon as practicable when exposed and undermined by a trench and when there is:

(A) less than 24 inches of cover; or

(B) 24 inches or more of cover and the trench widths set forth in Table B31-1 are exceeded.

Table B31-1 – Maximum Allowable Trench Width

Nominal Pipe Diameter	Depth of Cover	
	2 to 4 feet	4 feet or more
4 inches or less	3 feet	4 feet
6 inches	4 feet	6 feet
8 inches	5.5 feet	8 feet

The trench width shall be determined by the distance along the centerline of the exposed Pipe.

(2) The minimum length of the replacement shall be equal to the trench width plus twice the distance from the top of the Pipe to the bottom of the crossing trench, extending equally on both sides of the crossing trench.

(3) The cast-iron Pipe shall be patrolled and leakage surveyed daily until the Pipe is replaced.

(4) Cast-iron Pipe does not have to be replaced in accordance with subsection (c)(1)(B) of this section when a Pipe segment is exposed and undermined in a Shallow Trench crossing, provided that:

(A) the backfill supporting and surrounding the Pipe is thoroughly compacted for the full trench width and for a distance equal to $\frac{1}{2}$ of the trench width on both sides of the centerline of the Pipe; and

(B) the backfill is free of objectionable material or debris, such as pavement, frozen soil, trash and rocks.

(d) Replacement of cast-iron Pipe adjacent to parallel excavations.

(1) Cast-iron Pipe, 8 inches or less in nominal diameter, adjacent to parallel excavation shall be replaced as soon as practicable, provided that the excavation exceeds 8 feet in length and a condition exists as set forth in subsections (d)(2), (d)(3), or (d)(4) of this section.

(2) A Low Pressure cast-iron Pipe parallel to a Shallow Trench excavation shall be replaced if:

(A) the Pipe is exposed and undermined; or

(B) at least $\frac{1}{2}$ of the Pipe diameter lies within the Angle Of Influence, and the bottom of the excavation is below the water table, or the excavation is in Soft Clay.

(3) A Low Pressure cast-iron Pipe parallel to a Deep Trench excavation and lies within the Angle Of Influence shall be replaced if:

- (A) the Pipe is exposed and undermined; or
 - (B) the Pipe is totally, or in part, within 3 feet of the edge of the trench and Sheet piling that may have been used is not left in place.
- (4) A High Pressure cast-iron Pipe parallel to a Shallow Trench or Deep Trench excavation shall be replaced if:
 - (A) the Pipe is exposed and undermined; or
 - (B) at least $\frac{1}{2}$ of the Pipe diameter lies within the Angle Of Influence and Sheet piling that may have been used is not left in place.
- (5) Any Pipe that replaces cast-iron Pipe shall extend a safe distance beyond the point where parallel excavation terminates, but at least 10 feet past the end of the affected area.
- (6) The cast-iron Pipe shall be patrolled and leakage surveyed daily until the Pipe is replaced.
- (e) Any segment of cast-iron Pipe that becomes undermined by a water main or sewer main break shall be evaluated and replaced according to subsection (d) of this section.

(NEW) Sec. 16-280b-B32. Operator Qualification

- (a) Definitions. For purposes of this section and 49 CFR 192, Subpart N, as amended from time to time, the following definitions apply:
 - (1) "Directed And Observed" means the process whereby a Qualified individual personally observes a single Covered Task performed by an individual not Qualified to perform said Covered Task, without impeding the ability of the Qualified individual to effectively respond to errors or Abnormal Operating Conditions that may occur during the performance of the Covered Task.
 - (2) "Evaluation" means a process, established and documented by the Operator, to determine an individual's ability to correctly perform a Covered Task by the following:
 - (A) written or oral examination; and
 - (B) observation during performance on the job or simulations.
 - (3) "Evaluator" means the person who performs an Evaluation.
 - (4) "Qualification Program" means the program required pursuant to 49 CFR 192, Subpart N, as amended from time to time, and this section.
 - (5) "Span of Control" means the ratio of non-Qualified to Qualified individuals whereby the non-Qualified individual(s) are Directed and Observed by a Qualified individual when performing a single Covered Task, with consideration given to complexity of the Covered Task and the operational conditions when performing the Covered Task.
- (b) An Operator shall not accept any other entities' qualification program, unless approved by the GPSU in writing. The GPSU may waive any of the requirements of this section when approving other entities' qualification programs.
- (c) Each Operator shall develop and implement a process for the use of outside resources during mutual aid situations. The GPSU may waive any of the requirements of this section for mutual aid situations.
- (d) Each Operator shall establish the qualifications of Evaluators and trainers, including prerequisites, knowledge and necessary training.
- (e) Those who inspect others performing Covered Tasks shall be trained and certified for the Covered Tasks they are inspecting.
- (f) The training and Evaluation process shall be specific to the Operator's Procedures.

- (g) Each Operator shall have a training and certification process for personnel performing engineering functions, specific to the design, construction, operation, maintenance and integrity of its Pipeline Facilities.
- (h) Training.
 - (1) All individuals performing Covered Tasks shall be initially trained prior to performing said Covered Tasks and then periodically trained to ensure that they have the necessary knowledge and skills to perform said Covered Tasks in a manner that ensures the safety and integrity of Pipeline Facilities.
 - (2) Operators shall establish training requirements, including the minimum training time.
 - (3) Specific causes for additional training shall be clearly defined, such as failed Evaluations, changes to Procedures or unacceptable performance. This training shall be completed prior to reevaluation.
- (i) Evaluations.
 - (1) Evaluations of a specific Covered Task shall not be performed during the 48-hour period following training or a failed Evaluation for the specific Covered Task.
 - (2) Guidance shall not be provided during an Evaluation.
 - (3) Procedures may be referenced by the individual during an Evaluation.
 - (4) Oral exam and observation during performance on the job or simulation Evaluations shall not exceed one individual being Qualified per Evaluator at a time.
 - (5) Operator personnel or independent third-party contractors shall perform the Evaluations.
 - (6) Security measures shall be taken to ensure the integrity of the Evaluation process.
 - (7) If any individual answers any Abnormal Operating Condition question incorrectly, the individual has failed the Evaluation.
 - (8) An individual shall be reevaluated if the Operator has reason to believe that the individual did not correctly perform a Covered Task.
- (j) Prior to performing a Covered Task pertaining to construction, Records shall be reviewed daily to ensure each individual performing a Covered Task is Qualified, unless the individual is being Directed and Observed.
- (k) Each Operator shall develop and implement a process to measure the effectiveness of the Qualification Program. Each Operator shall conduct this program effectiveness review at least once every other calendar year, but at intervals not exceeding 27 months.
 - (1) The process to measure program effectiveness shall:
 - (A) evaluate if the Qualification Program is being implemented and executed as written; and
 - (B) establish provisions to amend the Qualification Program to include any changes necessary to address the findings of the program effectiveness review.
 - (2) Each Operator shall develop program metrics, which shall include occurrences of an individual failing to perform a Covered Task correctly and failed Qualifications, to determine the effectiveness of the Qualification Program.
- (l) Each Operator shall maintain the following Records:
 - (1) Individual qualification Records including:
 - (A) identification of the Qualified individual, including a photograph,
 - (B) identification of the Covered Task(s) the individual is Qualified to perform;
 - (C) date(s) of Evaluations;
 - (D) date(s) qualification(s) expires;
 - (E) an individual's written or oral exam test questions and answers;

- (F) an individual's results of observation during performance on the job or simulations;
- (G) name(s) of Evaluator(s); and
- (H) training Records.
- (2) The Records contained in subsections (l)(1)(A) to (l)(1)(D), inclusive, of this section, shall be available in the field anytime Covered Tasks are being performed.
- (3) Qualification Program Records including the following:
 - (A) Qualification Program effectiveness reviews;
 - (B) Qualification Program changes, including revision history and annotated versions showing all revisions of the Procedures;
 - (C) management of change notifications;
 - (D) a list of Covered Tasks, including description, scope, Evaluation intervals, Span Of Control and Abnormal Operating Conditions specific to each Covered Task;
 - (E) qualification Records for Evaluators;
 - (F) a cross-reference table of Covered Tasks to applicable Procedures; and
 - (G) training Records, including the dates, durations, attendance sheets, syllabi, presentation materials, student critiques, lessons learned and revised training documentation showing how the training was revised based on the student critiques.
- (m) Individuals qualified for a Covered Task under the Federal Regulations on or before [INSERT EFFECTIVE DATE OF REGULATION] remain qualified until those qualifications expire at which point the re-qualification will follow the Federal Regulations and this section.

Sec. 7. The Regulations of Connecticut State Agencies are amended by adding sections 16-280b-C1 to 16-280b-C10, inclusive, as follows:

(NEW) Sec. 16-280b-C1. Petroleum Gas Operators

Sections 16-280b-C2 to 16-280b-C10, inclusive, of the Regulations of Connecticut State Agencies, apply to each Operator that transports Petroleum Gas.

(NEW) Sec. 16-280b-C2. Notifications

- (a) On or before October first of each year, each Operator and supplier of a Petroleum Gas Distribution System shall submit to the GPSU, information about the Petroleum Gas Distribution System. Any changes to such information shall be submitted to the GPSU not later than 30 calendar days after such change.
- (b) Each Operator shall provide notice to the GPSU, at least 10 calendar days prior, if practicable, of planned:
 - (1) replacement, removal or addition of a container; or
 - (2) new Main or Service Line construction.
- (c) Each Operator shall submit:
 - (1) contact information, including cell phone numbers and email addresses for all personnel responsible for management or supervisory functions related to Petroleum Gas Distribution Systems located in Connecticut;
 - (2) a telephone number for reporting emergencies; and

- (3) a current address for, and recipients of, official correspondence.
- (d) Each Operator shall notify the GPSU as soon as practicable, but no later than 14 calendar days, following any changes to the information in subsection (c) of this section.

(NEW) Sec. 16-280b-C3. Change of Operator

When there is a change in the Operator of a Petroleum Gas Distribution System:

- (1) not later than 5 business days after the change, the new Operator shall notify the prior Operator;
- (2) not later than 5 business days after the notification in subsection (1), the prior Operator shall provide a copy of all Records required by any Federal Regulation or State Regulation for the Petroleum Gas Distribution System to the new Operator;
- (3) not later than 14 calendar days after the change, the new Operator shall conduct a leakage survey; and
- (4) not later than 14 calendar days after the change, the new Operator shall conduct an inspection to ensure the Petroleum Gas Distribution System complies with all State Regulations and Federal Regulations and remediate any findings not later than 3 months after the inspection, unless an extension is approved by the GPSU in writing.

(NEW) Sec. 16-280b-C4. Materials

Steel, copper and polyethylene shall be installed for Mains and Service Lines, except belowground copper shall only be installed upstream of the first pressure regulator, unless some other material is approved by the Authority.

(NEW) Sec. 16-280b-C5. Valves

Container valves shall be designated as Emergency Valves.

(NEW) Sec. 16-280b-C6. Customer Meters

No later than [INSERT DATE 4 YEARS AFTER EFFECTIVE DATE OF REGULATION], where more than one Petroleum Gas Distribution System is located on the same premises, each Customer Meter shall be labelled to identify the Petroleum Gas Distribution System from which it receives Petroleum Gas.

(NEW) Sec. 16-280b-C7. Maps

Each Operator shall maintain maps of each Petroleum Gas Distribution System for the life of such system, with sufficient detail to accurately determine the location of each:

- (1) Main and Service Line, including size and characteristics;
- (2) Emergency Valve;
- (3) storage container, including size and characteristics;
- (4) cathodic protection anode and impressed current system;
- (5) Customer Meter;

- (6) regulator;
- (7) vaporizer; and
- (8) hydrostatic relief valve.

(NEW) Sec. 16-280b-C8. Public awareness

Any incorrect Operator names or emergency telephone numbers on a Pipeline Facility shall be removed or covered not later than 30 calendar days after it is discovered or after a change to the Operator name or emergency telephone number.

(NEW) Sec. 16-280b-C9. Odorization of Petroleum Gas

The periodic sampling required pursuant to 49 CFR 192.625(f), as amended from time to time, shall be performed:

- (1) at least 4 times each calendar year, but at intervals not exceeding 4½ months unless the Operator justifies a reduced frequency in their Procedures;
- (2) at sufficient locations to ensure that all Petroleum Gas within each Petroleum Gas Distribution System contains the required odorant concentration.

(NEW) Sec. 16-280b-C10. Leaks

- (a) Any device used to perform a leakage survey on a Petroleum Gas Distribution System shall be designed and calibrated for detecting Petroleum Gas.
- (b) If a Barhole leakage survey is performed, the:
 - (1) leakage surveys shall include tests of the atmosphere in all manholes, at cracks in pavement and sidewalks, and immediately adjacent to structure foundations; and
 - (2) Barholes shall be:
 - (A) placed adjacent to the Pipeline;
 - (B) at the approximate depth of the Pipeline;
 - (C) spaced approximately 20 feet apart; and
 - (D) placed immediately adjacent to structure foundations.
- (c) A Pressure Drop Test may be utilized as the leakage survey required pursuant to 49 CFR 192.723, as amended from time to time, under the following conditions:
 - (1) the pressure in the Pipeline shall be at least equal to the operating pressure;
 - (2) the duration of the test shall be commensurate with the volume of the Pipeline; and
 - (3) the test pressure shall be in the middle third of the range on the gauge used to monitor the test.
- (d) A Pipeline shall not be returned to service if there is an indication of a leak during a Pressure Drop Test.
- (e) If any leakage survey indicates the presence of Petroleum Gas at a structure foundation, the interior of the structure shall be immediately checked for the presence of Petroleum Gas.
- (f) Immediately after Petroleum Gas is introduced into a Main or Service Line that has been restored after an interruption of service, a leakage survey shall be conducted on the Main or Service Line.

Sec. 8. Sections 16-11-4, 16-11-10 to 16-11-12, inclusive, 16-11-17, 16-11-19, 16-11-20, 16-11-40, 16-11-42, 16-11-43 and 16-11-46 of the Regulations of Connecticut State Agencies are repealed.

Statement of Purpose. The purpose of the proposed regulations is to revise the PURA's existing regulations that implement Conn. Gen. Stat. §§ 16-280b(b) and 16-280c. The proposed regulations repeal and replace outdated requirements and provide clarification and updates to reflect current practices related to PURA's oversight and the safety of the gas distribution systems throughout Connecticut using an approach consistent with federal regulations.

The current regulations are outdated and have not been revised since circa 1964. There have been significant changes in the gas industry including the materials and equipment used, and the processes for installing and maintaining gas distribution systems. Additionally, the proposed regulations focus on enhancing public safety and reducing the environmental impact of gas distribution systems.