The Commonwealth of Massachusetts

DEPARTMENT OF PUBLIC UTILITIES

D.P.U. 16-19-A February 15, 2017

Investigation of the Department of Public Utilities, on its own motion, instituting a rulemaking pursuant to G.L. c. 30A, § 2, 220 C.M.R. § 2.00 et seq., and Executive Order 562 to amend 220 C.M.R. §§ 69.00, 101.00, and 104.00.

ORDER ADOPTING FINAL REGULATIONS

I. INTRODUCTION

Pursuant to Executive Order 562, the Governor's Office directed each Executive Agency, including the Department of Public Utilities ("Department"), to undertake a review of its regulations.[1] The Governor's Office directed agencies to rescind, revise, or simplify their regulations in accordance with the requirements of Executive Order 562, and to retain or modify only those regulations that are mandated by law or essential to the health, safety, environment, or welfare of the Commonwealth's residents. Executive Order 562, §§ 2, 3. With this Order, the Department adopts the final regulations contained in 220 C.M.R. §§ 69.00, 101.00, and 104.00.[2]

II. PROCEDURAL HISTORY

On February 11, 2016, pursuant to G.L. c. 30A, § 2, 220 C.M.R. § 2.00, and Executive Order 562, the Department issued proposed amendments to regulations 220 C.M.R. §§ 69.00, 101.00, and 104.00. Order Instituting Rulemaking, D.P.U. 16-19 (February 11, 2016) ("Order Instituting Rulemaking"). The proposed amendments were intended to eliminate duplicative regulations, update statutory and other references, and simplify and clarify regulations.

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[1] See Office of the Governor, Commonwealth of Massachusetts, Executive Order No. 562 (March 31, 2015).

[2] Attached are clean and redline copies of the amended regulations, 220 C.M.R. §§ 69.00, 101.00, and 104.00.

Pursuant to the requirements of G.L. c. 30A, the Department published a notice of the proposed rulemaking in the Massachusetts Register on February 26, 2016, and in the Boston Herald on March 3, 2016. The Department sought initial written comments on the amendments to 220 C.M.R. §§ 69.00, 101.00, and 104.00, with a submission deadline of April 6, 2016, and reply comments with a submission deadline of April 27, 2016. Bay State Gas Company d/b/a Columbia Gas of Massachusetts, The Berkshire Gas Company, Blackstone Gas Company, Fitchburg Gas and Electric Light Company d/b/a Unitil, Liberty Utilities (New England Natural Gas Company) Corporation d/b/a Liberty Utilities, Boston Gas Company and Colonial Gas Company each d/b/a National Grid, and NSTAR Gas Company d/b/a Eversource Energy (collectively, the "Companies") submitted joint initial comments on April 6, 2016.

Pursuant to notice duly issued, the Department held a public hearing at its offices on April 20, 2016, at which the Attorney General provided comment.[3] A technical session was held following the public hearing. The Companies submitted timely joint reply comments. Additionally, the Secretary of State of the Commonwealth of Massachusetts ("Secretary of State") provided the Department with several stylistic and formatting edits. Further, for 220 C.M.R. §§ 69.00, 101.00, and 104.00, the Secretary of State added regulation titles when other regulations were referenced. For 220 C.M.R. §§ 101.00 and 104.00, the Secretary of State deleted references to subsequent amendments to the Code of Federal Regulations. We incorporate all of the Secretary of State's edits in the final regulations adopted in this Order.

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[3] The Attorney General also filed a written version of her oral comments.

Further, by this Order, we adopt all of the Department's proposed amendments, including the proposed amendment to 220 C.M.R. § 101.06(21)(a) outlined below, and for the reasons stated below, and we reject the further amendments proposed by the Companies.

III. COMMENTS

A. Introduction

The Attorney General and the Companies had no objections to the Department's proposed amendments to 220 C.M.R. §§ 69.00, 101.00, and 104.00. The Companies submitted joint comments that proposed further amendments to 220 C.M.R. § 101.00 regarding the definition of "Transmission Lines" at 220 C.M.R. § 101.03 and the timing of gas leak surveys at 220 C.M.R. § 101.06(21). The Attorney General submitted comments on the Companies' proposed amendments, and the Companies responded to the Attorney General's comments in their joint reply comments.

B. Companies Joint Comments

1. Proposed Amendments to 220 C.M.R. § 101.03

The Companies propose changing the definition of "Transmission Line" in 220 C.M.R. § 101.03 by adding the language "or large volume customer that is not down-stream from a distribution center" (Joint Comments at 2). With this proposed change, part (a) of the definition would read as follows:

> (a) Transports gas from a gathering line or storage facility to a distribution center or storage facility, or large volume customer that is not down-stream from a distribution center.

The Companies propose amending the definition so that it aligns with the federal Pipeline and Hazardous Materials Safety Administration ("PHMSA") regulations definition at

49 C.F.R. § 192.3 (Joint Comments at 2).[4] The Companies maintain that using the same definition for "Transmission Line" in state and federal regulations will reduce inconsistency and confusion (Joint Comments at 2).

2. Proposed Amendments to 220 C.M.R. § 101.06(21)

The Companies propose revising 220 C.M.R. § 101.06(21) to make the timing of gas leak surveys consistent with federal PHMSA regulations (Joint Comments at 2). The Companies' proposed change would allow up to three additional months between leak surveys, while still requiring business district leak surveys to be done at least once each calendar year and outside business district leak surveys to be done at least once every two calendar years (Joint Comments at 3). The proposed survey timing for business districts established at 220 C.M.R. § 101.06(21)(a) would increase from intervals not exceeding one year to intervals not exceeding 15 months, but at least once each calendar year. The proposed survey timing for outside business districts set forth at 220 C.M.R. § 101.06(21)(b) would increase from intervals at least once in every consecutive 24-month period to intervals not exceeding 27 months, but at least once every two calendar years (Joint Comments at 3). The Companies'

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[4] "Transmission line" at 49 C.F.R. § 192.3 is defined as follows:

> *Transmission line* means a pipeline, other than a gathering line, that: (1) Transports gas from a gathering line or storage facility to a distribution center, storage facility, or large volume customer that is not down-stream from a distribution center; (2) operates at a hoop stress of 20 percent or more of SMYS; or (3) transports gas within a storage field. Note: A large volume customer may receive similar volumes of gas as a distribution center, and includes factories, power plants, and institutional users of gas.

concern is that without the three-month leeway the timing of the leak surveys can backup into the winter months when surveys are more difficult to perform (Joint Comments at 3).[5] The Companies contend that these scheduling issues are alleviated by providing three months leeway in combination with the calendar year requirements, thus ensuring that the Companies have adequate time to perform the leak surveys without diminishing the survey requirements (Joint Comments at 3). The Companies note that the PHMSA regulations recognize this issue and provide additional time for both patrolling and performing leak surveys (Joint Comments at 3, citing 49 C.F.R. §§ 192.723, 192.721). Further, the Companies note that this allowance of extra time is also consistent with the Department's regulations regarding pipeline location marking, patrols and leak surveys for high pressure pipelines (Joint Comments at 3-4, citing 220 C.M.R. §§ 109.07(2); 109.13).

C. Attorney General Comments

The Attorney General objects to the Companies' proposed amendments to 220 C.M.R. § 101.03 and 220 C.M.R. § 101.06(21), asserting that they are substantive changes that go beyond the proposed amendments noticed by the Department (Tr. at 5; Attorney General Comments at 2). The Attorney General maintains that the Department in its Order Instituting Rulemaking indicated the purpose of its revisions was to "eliminate duplicative regulation,

[5] The Companies explain that if a leak survey in a business district is performed on March 3, 2016, the next leak survey must be performed by March 2, 2017. Likewise, if a leak survey is performed on February 15, 2017, the next leak survey would be due on February 14, 2018, etc. (Joint Comments at 3).

update statutory and other references and simplify and clarify regulations" in order to comply with Executive Order 562's directive to the Department to rescind, revise or simplify regulations (Tr. at 5; Attorney General Comments at 2, citing Order Instituting Rulemaking at 1). The Attorney General contends that the Department's rulemaking notice requested comments on the Department's proposed revisions, but the Companies instead provided substantive changes to the definition of "Transmission Line" and the frequency requirements for performing gas leak surveys (Tr. at 6; Attorney General Comments at 3). The Attorney General therefore argues that the Companies have not provided sufficient notice of their proposed amendments in accordance with G.L. c. §§ 2 and 3A and 220 C.M.R. § 2.05 (Tr. at 6-7; Attorney General Comments at 3). The Attorney General asks the Department not to accept the Companies' amendments due to the insufficient notice (Tr. at 7; Attorney General Comments at 3).

D. Companies' Joint Reply Comments

The Companies urges the Department to reject the Attorney General's position. The Companies note that the Order Instituting Rulemaking states that the rulemaking proceeding was commenced in response to Executive Order 562 which specifically provides that, "in conducting its review, the Department must demonstrate that 'the regulation does not exceed federal requirements . . .'" (Joint Reply Comments at 2, citing Executive Order 562, at § 3(3)). The Companies contend that the amendments proposed by the Companies are specifically targeted towards consistency with the PHMSA regulations at 49 C.F.R. §§ 192.3, 192.723, 192.721 (Joint Reply Comments at 2). In addition, the Companies assert that the

notice specifically states that "the Department will consider other relevant corrections to 220 C.M.R. §§ 69.00, 101.00, and 104.00, as determined during the course of the proceeding" (Joint Reply Comments at 3, citing D.P.U. 16-19, Notice of Public Hearing and Request for Comments (February 11, 2016)). The Companies therefore state that the Department acknowledged additional changes could result from the proceeding (Joint Reply Comments at 3).

Further, the Companies argue that the notice requirements referenced by the Attorney General impose requirements on the Department, not upon the commenters in a rulemaking, (Joint Reply Comments at 3, citing G.L. c. §§ 2 and 3A; 220 C.M.R. § 2.05). The Companies request that the Department implement the limited revisions set forth in their Joint Comments because they are consistent with the Department's goals of simplifying and clarifying its regulations and consistent with the goals of Executive Order 562 (Joint Reply Comments at 4).

IV. ANALYSIS AND FINDINGS

A. Scope of Rulemaking

The Department instituted this rulemaking pursuant to Executive Order 562 to amend 220 C.M.R. §§ 69.00, 101.00, and 104.00. Order Instituting Rulemaking at 1-2; D.P.U. 16-19, Notice of Public Hearing and Request for Comments at 1 (February 11, 2016). The Department specifically indicated that it would consider other relevant corrections to the regulations, as determined during the course of the proceeding. D.P.U. 16-19, Notice of Public Hearing and Request for Comments at 1. The Department therefore disagrees with the

Attorney General's assertion that the Companies' proposed amendments go beyond the scope of the rulemaking noticed by the Department. The Department finds that the Companies' proposed changes to 220 C.M.R. § 101.00 are within the scope of this rulemaking proceeding and properly before the Department for consideration. Notwithstanding our determination that the Companies' proposed amendments are properly before the Department in this proceeding, after review and consideration and for the reasons discussed below, we decline to adopt the Companies' proposed amendments to 220 C.M.R. § 101.00.

B. Definition of Transmission Line

We note that the current definition of "Transmission Line" in 220 C.M.R. § 101.03 dates back to 1972, and matched the PHMSA definition contained in 49 C.F.R. § 192.3 that was adopted in 1970. See Massachusetts Gas Distribution Code, D.P.U. 11725-F at 5 (1972); 35 Fed. Reg. 13258 (Aug. 19, 1970) (codified at 49 C.F.R. § 192.3). In 1996, the PHMSA definition in 49 C.F.R. § 192.3 was updated to include the language "or large volume customer that is not down-stream from a distribution center," the precise language that the Companies ask the Department to include now in 220 C.M.R. § 101.03. See 61 Fed. Reg. 28783 (June 6, 1996) (codified at 49 C.F.R. § 192.3). While the Companies' proposed change to the definition of "Transmission Line" at 220 C.M.R. § 101.03 would align the Department's definition of "Transmission Line" in 220 C.M.R. § 101.03 with the PHMSA regulations' definition at 49 C.F.R. § 192.3, we reject the proposed change because it has the potential to reclassify pipelines in Massachusetts without Department review.

More specifically, the safety standards applicable to transmission and distribution pipelines differ under 220 C.M.R. § 101. See, e.g., 220 C.M.R. § 101.06(11) and (12) (casing and cover requirements for transmission lines). But there has been no review of which lines would be reclassified as a transmission line under the proposed definition or the potential impact that such reclassification could have on the pipeline system in Massachusetts. We therefore cannot determine with precision whether the proposed change to the definition of transmission line would not adversely impact the Department's duties and responsibilities with regard to pipeline safety within Massachusetts. Accordingly, because the proposed change could have unintended consequences for pipeline safety, we reject the Companies' proposed amendment to 220 C.M.R. § 101.03. We note, however, our rejection of the proposed amendment does not preclude a line that transports gas from a gathering line or storage facility to a large volume customer that is not down-stream from a distribution center from being classified as a transmission line. Rather, the Department merely refrains from adopting the proposed change to the definition of transmission line without a more specific review of any lines that may be reclassified as a result of the proposed change.

C. Leak Surveys

The one-year and twenty-four month leak survey intervals for business districts and outside business districts, respectively, in 220 C.M.R. § 101.06(21)(a) and (b) were consistent with older versions of their federal counterparts. Specifically, the one-year leak survey interval in 220 C.M.R. § 101.06(21)(a) for business districts was adopted in the late 1960s and was consistent with the 1970 PHMSA's one-year interval for leak surveys. Rules to Insure

Safe Operating Practices of Gas Corporations and Municipal Gas Departments, D.P.U. 11725-C at 11-12 (1967); 35 Fed. Reg. 13274 (Aug. 19, 1970) (codified at 49 C.F.R. § 192.723(b)(1)). But the PHMSA business district leak survey requirement was updated in 1982 to require surveys to be conducted at intervals not exceeding "15 months, but at least once each calendar year." 47 Fed. Reg. 46851 (Oct. 21, 1982) (codified at 49 C.F.R. § 192.723(b)(1)).[6]

The 24-month interval for leak surveys for areas outside of business districts set forth at 220 C.M.R. § 101.06(21)(b) was also adopted in the late 1960s. D.P.U. 11725-C at 12. The corresponding PHMSA regulations were adopted in 1970 and required leak surveys to be conducted outside business districts at five-year intervals without any leeway to the five-year interval. 35 Fed. Reg. 13274 (Aug. 19, 1970) (codified at 49 C.F.R. § 192.723(b)(2)). In 2004, the PHMSA regulations were amended so that leak surveys "must be conducted outside business districts as frequently as necessary, but at least once every 5 years at intervals not exceeding 63 months." 69 Fed. Reg. 32895 (June 14, 2004) (codified at 49 C.F.R. § 192.723(b)(2)).

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[6] The Research and Special Programs Administration, predecessor of the PHMSA, in adopting amendments to 49 C.F.R. § 192.723(b)(1), found that "minor modifications which extend the intervals without reducing the number of inspections, tests or other activities that must be performed each year will allow operators more discretion in scheduling." 47 Fed. Reg. 46850-51 (Oct. 21, 1982) (codified at 49 C.F.R. § 192.723(b)(1)).

We acknowledge that Department's leak survey requirements are more stringent than the corresponding federal requirements. We are reluctant, however, to adopt the proposed three-month leeway to the interval conducting leak surveys for the following reasons. First, the primary purpose of the leak survey requirements is public safety and welfare. While the Companies maintain that the proposed three-month leeway would not reduce the number of leak surveys or diminish the survey requirements, we are not convinced that the proposed three-month leeway is appropriate without a more rigorous review of the possible impact on public safety.

Second, we accept that winter months may pose challenges to performing leak surveys but we do not consider such challenges insurmountable or sufficient to warrant modification of 220 C.M.R. § 101.06(21)(a) and (b). As noted above, the current leak survey intervals for business and outside business districts have been in place since the late 1960's. We expect the Companies to continue to conduct leak surveys and employ those techniques utilized over the past 45-plus years to ensure timely performance of leak surveys despite any winter weather challenges. Accordingly, for the reasons cited above, we reject the Companies' proposed amendment to 220 C.M.R. § 101.06(21)(a) and (b).

Nevertheless, pursuant to Executive Order 562, the Department finds that it is appropriate to modify the language in the business district leak survey interval at 220 C.M.R. § 101.06(21)(a) to be consistent with the language in 220 C.M.R. § 101.06(21)(b) for outside business districts. Specifically, the Department amends 220 C.M.R. § 101.06(21)(a) to state "at least once in every consecutive 12 month period" and deletes the current language which

states "at intervals not exceeding one year." We find that using identical language for both the business district and outside business district leak survey requirements, without any change to the current intervals for either district, is reasonable and consistent with the mandate of Executive Order 562.

V. ADOPTION OF FINAL REGULATIONS

For the reasons stated above, the Department, by this Order, adopts as final regulations 220 C.M.R. § 69.00, Procedures for the Determination and Enforcement of Violations of Safety Codes Pertaining to Pipeline Facilities, Transportation of Natural Gas, and Liquefied Natural Gas Facilities; 220 C.M.R. § 101.00, Massachusetts Natural Gas Pipeline Safety Code; and 220 C.M.R. § 104.00, Petroleum Gas Plants.

The Department has filed standard Regulation Filing Forms and the amended regulations 220 C.M.R. §§ 69.00, 101.00, and 104.00 with the Office of the Secretary of the Commonwealth, State Publications and Regulations Division. These amended regulations supersede the proposed regulations and go into effect upon publication in the Massachusetts Register. See 950 C.M.R. § 20.00.

VI. ORDER

Accordingly, after notice, comment, hearing, and due consideration, it is

ORDERED: That the regulations, entitled "Procedures for the Determination and Enforcement of Violations of Safety Codes Pertaining to Pipeline Facilities, Transportation of Natural Gas, and Liquefied Natural Gas Facilities," attached hereto and designated as 220 C.M.R. § 69.00 et seq., are hereby ADOPTED; and it is

FURTHER ORDERED: That the regulations, entitled "Massachusetts Natural Gas Pipeline Safety Code," attached hereto and designated as 220 C.M.R. § 101.00 et seq. are hereby ADOPTED; and it is

FURTHER ORDERED: That the regulations, entitled "Petroleum Gas Plants," attached hereto and designated as 220 C.M.R. § 104.00 et seq., are hereby ADOPTED.

By Order of the Department,

/s/
Angela M. O'Connor, Chairman

/s/
Jolette A. Westbrook, Commissioner

/s/
Robert E. Hayden, Commissioner

An appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part. Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of the twenty days after the date of service of said decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. G.L. c. 25, § 5.

220 CMR 69.00 PROCEDURES FOR THE DETERMINATION AND ENFORCEMENT OF VIOLATIONS OF SAFETY CODES PERTAINING TO PIPELINE FACILITIES, TRANSPORTATION OF NATURAL GAS, AND LIQUEFIED NATURAL GAS FACILITIES.

Section

69.01: Purpose and Scope

220 CMR 69.00 establishes the procedure for determining the nature and extent of violations of codes, regulations, or rules adopted or enforced by the Department of Public Utilities (Department) pertaining to the safety of pipeline facilities and the transportation of natural gas and liquefied natural gas facilities, including but not limited to, 220 CMR 101.00 through 113.00 and federal pipeline safety standards as set forth in 49 CFR Part 192, including all subsequent amendments; federal safety standards for liquefied natural gas (LNG) as set forth in 49 CFR Part 193, including all subsequent amendments; and federal drug and alcohol testing standards as set forth in 49 CFR Parts 40 and 199, including all subsequent amendments. 220 CMR 69.00 shall apply to violations of these state codes and these federal codes that occur at a time when the Department has submitted and has in effect the annual certification to the United States Secretary of Transportation provided for in 49 U.S.C. § 60105, pursuant to the provisions of M.G.L. c. 164, § 105A.

69.02: Inspections

Officers, employees, or agents authorized by the Commission of the Department or its designee, upon presenting appropriate credentials, are authorized to enter upon, inspect and examine, at reasonable times and in a reasonable manner, the records and properties of gas companies and municipal gas departments to the extent such records and properties are relevant to determining the compliance of such gas companies and municipal gas departments with 220 CMR 101.00 through 113.00, and/or 49 CFR Parts 40, 192, 193 and 199. The facilities, reports, and records needed to ensure compliance with 220 CMR 69.00 shall be accessible to the Department for such inspections. Each gas company and municipal gas department shall provide the Department with such reports, supplemental data, and

information as the Department may request for the enforcement and administration of 220 CMR 69.00, except that said companies and departments need not provide the Department with copies of security procedures for a pipeline facility, if such security procedures are made available at the facility for review and inspection by the Department.

69.03: Commencement of Enforcement Proceedings

(1) Warning Letters. Upon determining that a probable violation of 220 CMR 101.00 through 113.00, and/or 49 CFR Parts 40, 192, 193 and 199 has occurred or is occurring, the Department may issue a warning letter notifying the owner or operator of the probable violation and advising the operator to correct it or be subject to enforcement action under 220 CMR 69.03(2) through 69.09. No such warning letter will be deemed to be based on a finding or adjudication by the Department that a violation exists, nor will it constitute evidence that a violation exists.

(2) Notice of Probable Violation. The Department may begin an enforcement proceeding by issuing a notice of probable violation (NOPV) if the Department has reason to believe that a violation of 220 CMR 101.00 through 113.00, and/or 49 CFR Parts 40, 192, 193 and 199 has occurred or is occurring. The NOPV may be issued by the Commission or its designee. The NOPV shall state the provision(s) of the codes, regulations or rules which the respondent is alleged to have violated and the evidence upon which the allegations are based, shall give notice of response options available to the respondent under 220 CMR 69.04, and, if a civil penalty is proposed, shall state the amount of the proposed civil penalty and the maximum civil penalty for which the respondent may be liable under law.

69.04: Response Options

(1) Within 30 days of receipt of an NOPV, the respondent shall respond to the Department in one of the following ways:
   (a) Pay the proposed civil penalty by check or money order made payable to the Commonwealth of Massachusetts and close the case;
   (b) Submit an offer in compromise of the proposed civil penalty under 220 CMR 69.04(2);
   (c) Request an informal conference under 220 CMR 69.05; or
   (d) Submit a written reply to the Department disputing the violation(s) in the NOPV. The reply must include a complete statement of all relevant facts and authority and full description of the reasons why the respondent disputes the violation(s) alleged in the NOPV.

(2) An offer in compromise under 220 CMR 69.04(1)(b) is made by submitting a check or money order for the amount offered, payable to the Commonwealth of Massachusetts, to the Department. A respondent making an offer in compromise shall also submit written explanations, information, or other materials which may justify the Department's acceptance of the offer in compromise. If an offer in compromise is

accepted by the Department, the respondent shall be notified in writing that the acceptance is in full settlement of the civil penalty action. If an offer in compromise is rejected by the Department, the check or money order shall be returned to the respondent with written notification. Within ten days of receipt of such notification, the respondent may request an informal conference under 220 CMR 69.05, or submit a written reply under 220 CMR 69.04(1)(d).

(3) Failure of the respondent to respond to the NOPV in accordance with 220 CMR 69.04 constitutes a waiver of respondent's right to contest the allegations in the NOPV and authorizes the Department, without further notice to the respondent, to find the facts to be as alleged in the NOPV and to issue a final order.

69.05: Informal Review

(1) The informal review shall be conducted by an investigator designated by the Commission. The informal review shall consist of an informal conference, if the respondent has chosen this option under 220 CMR 69.04(1)(c), or an analysis of the respondent's written reply under 220 CMR 69.04(1)(d).

(2) At the informal conference, the respondent shall have the right to be represented by an attorney or other person, and shall have the right to present relevant documents to the investigator. The investigator shall make available to the respondent any evidence which indicates that the respondent may have violated any provision of 220 CMR 101.00 through 113.00, and/or 49 CFR Parts 40, 192, 193 and 199, and the respondent or the respondent's representative shall have the opportunity to rebut this evidence. However, this informal conference shall not be construed to be an adjudicatory hearing for purposes of M.G.L. c. 30A.

(3) The investigator shall make a decision in writing. If the respondent is not satisfied with the decision, the respondent may request an adjudicatory hearing, in writing, within seven days of the date of the decision. Failure to request an adjudicatory hearing within the time allowed will be deemed an admission of the factual allegations and legal conclusions stated in the investigator's decision, and the respondent shall be held liable to pay the civil penalty designated in the NOPV and to comply with a remedial order issued under 220 CMR 69.07.

69.06: Adjudicatory Hearing

(1) The adjudicatory hearing shall be a de novo hearing and shall be an adjudicatory hearing for purposes of M.G.L. c. 30A, and shall be conducted pursuant to 220 CMR 1.00: *Procedural Rules*.

(2) At the adjudicatory hearing, the respondent shall have the right to be represented by an attorney or other representative.

(3) If the Department finds, after the adjudicatory hearing, that the respondent has violated any provision of 220 CMR 101.00 through 113.00, and/or 49 CFR Parts 40, 192, 193 and 199, it may issue a remedial order pursuant to 220 CMR 69.07.

69.07: Remedial Orders

(1) If the Department finds that a violation has occurred or is occurring, it may issue a remedial order. The remedial order shall include a written opinion setting forth the factual and legal basis of the findings and shall direct any party to take or refrain from taking any action, including the payment of a fine or civil penalty provided by law.

(2) A remedial order issued by the Commission or its designee under 220 CMR 69.07 shall be effective upon issuance, in accordance with its terms, unless stayed, suspended, modified or rescinded.

(3) A remedial order is a final decision of the Commission within the meaning of M.G.L. c. 25, § 5, and subject to review by the Supreme Judicial Court.

(4) If the respondent fails either to appeal a remedial order to the Supreme Judicial Court or to comply fully with the order within 20 days after issuance of the order, the Department may refer the case to the Attorney General with a request that an action be brought in the Superior Court to seek appropriate relief, including collection of assessed penalties.

69.08: Consent Orders

(1) Notwithstanding any other provision to the contrary, the Department may at any time resolve an outstanding enforcement issue with a consent order. A consent order must be signed by the person to whom it is issued, or a duly authorized representative, and must indicate agreement with the terms therein. A consent order need not constitute an admission by any person that a violation has occurred.

(2) A consent order is a final order of the Department, having the same force and effect as a remedial order issued pursuant to 220 CMR 69.07.

(3) A consent order shall not be appealable and shall include an express waiver of appeal or judicial review rights that might otherwise attach to a final order of the Department.

69.09: Civil Penalties

The determination of the amount and appropriateness of a civil penalty shall be made pursuant to G.L. c. 164, § 105A.

69.10: Hazardous Facility Orders

(1) Except as provided by 220 CMR 69.10(2), if the Department finds, after reasonable notice and opportunity for hearing in accord with 220 CMR 69.10(3), a particular pipeline facility or LNG facility to be hazardous to life or property, it shall issue an order pursuant to 220 CMR 69.10 requiring the owner or operator of the facility to take corrective action. Corrective action may include suspended or restricted use of the facility, physical inspection, testing, repair, replacement, or other action, as appropriate.

(2) The Department may waive the requirement for notice and hearing under 220 CMR 69.10(1) before issuing an order pursuant to 220 CMR 69.10 when the Commission or its designee determines that failure to do so would result in the likelihood of serious harm to life or property. However, the Department shall include in the order an opportunity for hearing as soon as practicable after issuance of an order. The provisions of 220 CMR 69.10(3)(a) apply to an owner or operator's decision to exercise such an opportunity for hearing. The purpose of such a post-order hearing is for the Department to determine whether the order should remain in effect or be rescinded or suspended in accordance with 220 CMR 69.10(7).

(3) Notice and Hearing:

(a) Written notice that the Department intends to issue an order under 220 CMR 69.10(3) shall be served upon the owner or operator of an allegedly hazardous facility. The notice shall allege the existence of a hazardous facility, stating the facts and circumstances supporting the issuance of a hazardous facility order, and providing the owner or operator an opportunity for a hearing, identifying the time and location of the hearing.

(b) An owner or operator may exercise the opportunity for a hearing under 220 CMR 69.10 by notifying the Department of that election in writing within ten days of service of the notice provided under 220 CMR 69.10(3)(a), or, when applicable, under 220 CMR 69.10(2). Absence of such written notification waives an owner or operator's opportunity for a hearing and allows the Department to proceed to issue a "hazardous facility order" in accordance with 220 CMR 69.10(4) through (7).

(c) A hearing under 220 CMR 69.10 shall be an adjudicatory proceeding as defined in M.G.L. c. 30A. The owner or operator of the allegedly hazardous facility shall have the right to be represented by an attorney at this hearing

(d) If the Department finds the facility to be hazardous to life or property, the Department shall issue an order in accordance with 220 CMR 69.10. If it does not find the facility to be hazardous to life or property, the Department shall dismiss the allegations contained in the notice, and promptly notify the owner or operator in writing.

(4) The Department may find a pipeline facility or LNG facility to be hazardous under 220 CMR 69.10(1):

(a) If, under the facts and circumstances, the Department determines that the

particular facility is hazardous to life or property; or

(b) If the pipeline facility or LNG facility or a component thereof has been constructed, operated, or maintained with any equipment, material or technique which the Department determines is hazardous to life or property, unless the operator involved demonstrates to the satisfaction of the Department that, under the particular facts and circumstances involved, such equipment, material or technique is not hazardous to life or property.

(5) In making a determination under 220 CMR 69.10(4), the Department shall consider, if relevant:

(a) The characteristics of the pipe, components, and other equipment used in the pipeline facility or LNG facility involved, including its age, manufacturer, physical properties (including its resistance to corrosion and deterioration), and the method of its manufacture, construction or assembly;

(b) The nature of the materials transported by such facility (including their corrosive and deteriorative qualities), the sequence in which such materials are transported, and the pressure required for such transportation;

(c) The aspects of the areas in which the pipeline facility or LNG facility is located, in particular, the climatic and geologic conditions (including soil characteristics) associated with such areas, and the population density and population and growth patterns of such areas; and

(d) Such other factors as the Department may consider appropriate.

(6) The hazardous facility order shall contain the following information:

(a) A finding that the pipeline facility or LNG facility is hazardous to life or property.

(b) The relevant facts which form the basis for that finding.

(c) The legal basis for the order.

(d) The nature and description of particular corrective action(s) required of the respondent.

(e) The date by which the required action(s) must be taken or completed, and, where appropriate, the duration of the order.

(f) If a hearing has been waived pursuant to 220 CMR 69.10(2), a statement that an opportunity for a hearing is provided at a particular location and at a certain time after issuance of the order.

(7) The Department shall rescind or suspend a hazardous facility order whenever it determines that the facility is no longer hazardous to life or property.

(8) At any time after an order issued under 220 CMR 69.10 has become effective, the Department may request the Attorney General to bring an action for appropriate equitable relief in the Supreme Judicial Court or the Superior Court, as provided in M.G.L. c. 164, § 79.

REGULATORY AUTHORITY

220 CMR 69.00: M.G.L. c. 164, §§ 66, 76, 76C, and 105A.

220 CMR 101.00: MASSACHUSETTS NATURAL GAS PIPELINE SAFETY CODE

Section

101.01: Compliance with MFS Standards

Every gas piping system shall be constructed, operated and maintained, except as otherwise provided in 220 CMR 101.00, in compliance with federal pipeline safety standards as set forth in 49 CFR Part 192: *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards* (MFS Standards).

101.02: Applications for Exceptions and Waivers from 220 CMR 101.04, 101.05, or 101.06

(1) A gas corporation or municipal gas department may make a written request to the Department of Public Utilities (Department) for an exception to the provisions of 220 CMR 101.04, 101.05, or 101.06. The Department may, after consideration, and the payment of the appropriate fee, issue the exception requested or modification thereof to the particular gas corporation or municipality requesting such exception. In emergencies, a verbal exception may be granted by the Department, which will then be confirmed by written request within seven days.

(2) The Department may issue a waiver to a gas corporation or municipal gas department from a provision of 49 CFR Part 192 of the federal regulations providing that the waiver pertains to an intrastate facility and the Department gives notice of such waivers to the U.S. Department of Transportation at least 60 days before the waiver becomes effective.

101.03: Definitions Based on 49 CFR Part 192 (Subpart A Section 192.3) of the MFS Standards

As used in 220 CMR 101.06, the following definitions apply:

Distribution Line means a pipeline other than a gathering or transmission line.

Gas means natural gas, flammable gas, or gas which is toxic or corrosive.

Gathering Line means a pipeline that transports gas from a current production facility to a transmission line or main.

High Pressure Distribution System means a distribution system in which the gas pressure in the main is higher than the pressure provided to the customer. (*See* 220 CMR 101.06.)

Listed Specification means a specification listed in 49 CFR Part 192, Appendix B, section I.

Low Pressure Distribution System means a distribution system in which the gas pressure in the main is substantially the same as the pressure provided the customer. (*See* 220 CMR 101.06.)

Main means a distribution line that serves as a common source of supply for more than one service line.

Maximum Actual Operating Pressure means the maximum pressure that occurs during normal operations over a period of one year.

Maximum Allowable Operating Pressure (MAOP) means the maximum pressure at which a pipeline or segment of a pipeline may be operated under 220 CMR 101.00.

Municipality means a city, county, or any other political subdivision of a State.

Offshore means beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

Operator means a person who engages in the transportation of gas.

Person means any individual, firm, joint venture, partnership, corporation, association, State, municipality, cooperative association, or joint stock association, and including any trustee, receiver, assignee, or personal representative thereof.

Pipe means any pipe or tubing used in the transportation of gas, including pipe-type holders.

Pipeline means all parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders and

fabricated assemblies.

Pipeline Facility means new and existing pipelines, rights-of-way, and any equipment facility, or building used in the transportation of gas or in the treatment of gas during the course of transportation.

Secretary means the U.S. Secretary of Transportation or any person to whom he has delegated authority in the matter concerned.

Service Line means a distribution line that transports gas from a common source of supply to:

(a) a customer meter or the connection to a customer's piping, whichever is farther downstream, or

(b) the connection to a customer's piping if there is no customer meter.

A customer meter is the meter that measures the transfer of gas from an operator to a consumer.

SMYS (specified minimum yield strength) is:

(a) For steel pipe manufactured in accordance with a listed specification, the yield strength specified as a minimum in that specification; or

(b) For steel pipe manufactured in accordance with an unknown or unlisted specification, the yield strength determined in accordance with 49 CFR 192.107(b).

State means each of the several states, the District of Columbia, and the Commonwealth of Puerto Rico.

Transmission Line means a pipeline, other than a gathering line, that:

(a) Transports gas from a gathering line or storage facility to a distribution center or storage facility;

(b) Operates at a hoop stress of 20% or more of SMYS; or

(c) Transports gas within a storage field.

Transportation of Gas means the gathering, transmission, or distribution of gas by pipeline or the storage of gas in or affecting interstate or foreign commerce.

101.04: Notice of Proposed Construction

At least 48 hours prior to the start of construction of pipeline installations, notice shall be filed with the Department in accordance with the requirements listed in 220 CMR 101.04(1) through (3):

(1) Pipeline installation projects of 5000 feet or more in length: All such projects.

(2) Pipeline installation projects of 2500 feet to 5000 feet in length: 25% of such projects, or a maximum of three of the projects in a calendar year.

(3) If no pipeline installation projects in a calendar year meet the requirements of 220 CMR 101.04(1) and 101.04(2), then there shall be reported to the Department no less than three pipeline installations irrespective of the length, provided this number or more are undertaken.

101.05: Preservation of Records

Nothing contained herein shall conflict with 220 CMR 75.00: *The Preservation of Records of Electric, Gas, and Water Utilities*.

101.06: Additional Rules or Modifications

Notwithstanding any provision of the MFS Standards which may allow less stringent requirements, the following additional rules or modifications shall apply.

(1) Low Pressure Distribution System. (Section 192.3 MFS Standards.) For the purpose of 220 CMR 101.06, a low pressure distribution system shall be defined as any system in which the gas pressure in the main is equal to or less than two psig.

(2) Intermediate Pressure Distribution System. (Section 192.3 MFS Standards.) For the purpose of 220 CMR 101.06, an intermediate pressure distribution system shall be defined as any system in which the gas pressure in the main is greater than two psig but equal to or less than 60 psig.

(3) High Pressure Distribution System. (Section 192.3 MFS Standards.) For the purpose of 220 CMR 101.06, a high pressure distribution system shall be defined as a system in which the pressure in the main is greater than 60 psig, but equal to or less than 200 psig.

(4) Class Locations. (Section 192.3 MFS Standards.)
   (a) Gas pipelines which are to be operated at pressures in excess of 200 psig shall not be installed within 40 feet of any building intended for human occupancy unless class 4 construction design criteria are met, or such other design criteria as the Department shall require.
   (b) For the purpose of 220 CMR 101.00, every gas piping system shall be designed, constructed, tested, operated, and maintained using a class 3 location as a minimum class location designation.

(5) Design Limitations for Plastic Pipe. (Section 192.123 MFS Standards.)

(a) The wall thickness for thermoplastic pipe may not be less than 0.090 inches.

(b) The Department may approve the use of reinforced thermosetting plastic pipe having a wall thickness not less than that listed in the following table:

Normal Size in Inches	Minimum Wall Thickness in Inches
2	0.060
3	0.060
4	0.070
6	0.100

(6) Distribution Line Valves. (Section 192.181 MFS Standards.) Each high pressure and intermediate pressure distribution system must have valves spaced so as to reduce the time to shut down a section of main in an emergency. The valve spacing is determined by the operating pressure, the size of mains, and the local physical conditions.

(7) Control of the Pressure of Gas Delivered from High Pressure Distribution System. (Section 192.197 MFS Standards.) For the purpose of 220 CMR 101.00, Section 192.197 of the MFS Standards shall be entitled: *Control of the Pressure of Gas Delivered from Mains Operating at Higher Pressures Than the Pressure Provided to the Customer*.

(8) Required Capacity of Pressure Relieving and Limiting Stations. (Section 192.201 MFS Standards.)

(a) Relief valves or other pressure limiting devices must be installed at or near each regular station controlling the pressure to a system operating at a pressure that is substantially the same as the pressure provided to the customer, with a capacity to limit the maximum pressure in the main to a pressure that will not exceed the safe operating pressure for any connected and properly adjusted gas utilization equipment.

(9) Inspection and Test of Welds. (Section 192.241 MFS Standards.)

(a) Notwithstanding the requirements of 220 CMR 101.06(9)(b), not less than 10% of the welds randomly sampled over the length of at least three of the installations of which notice of construction is required under 220 CMR 101.04 shall be radiographically examined and available to the Department. If less than three installation projects are undertaken by any company, at least 10% of the welds shall be radiographically examined

and available to the Department.

(b) The Department may at any time visually inspect any welding and if it is considered faulty, order the operating company to subject the weld to a destructive test as outlined in MFS Standards, Appendix C, paragraph I or to a radiographic examination.

(10) Protection from Hazards. (Section 192.317 MFS Standards.)

(a) The method of protecting all new piping on trestles and bridges shall be subject to the approval of the Department. For each such bridge crossing, the operator shall submit a written request for approval and a detailed installation plan to the Department that includes the following items:

1. The proposed nominal pipe diameter, wall thickness, (minimum wall thickness 0.237"), and the Specified Minimum Yield Strength (SMYS).
2. The maximum operating pressure of the pipeline and the test pressure. The maximum operating pressure for new pipelines on bridges shall not exceed 200 psig.
3. For nominal pipe diameters 12" or greater, a calculation of the hoop stress (H) in accordance with the following formula:

$$H = \frac{PD}{2t}$$

H = Hoop stress in pounds per square inch
P = Maximum Operating Pressure in pounds per square inch gauge
D = The specified outer diameter in inches
t = Specified wall thickness in inches (not less than 0.237").

4. Method of providing for expansion or contraction of the bridge, if necessary.
5. Pipe support details, number of supports, and distances between supports.
6. The plan shall indicate that valves are provided on both sides of the bridge and their approximate location.

(b) For bridges under the care and control of the Massachusetts Department of Transportation (MassDOT), the procedure for a MassDOT permit shall be as follows:

1. On new bridges, a preliminary design plan will be submitted by MassDOT to the pertinent utility company notifying it of the proposed construction and suggested location of pipe on or in the bridge structure. (A copy of this letter will be forwarded to the

Director of the Pipeline Engineering and Safety Division of the Department).

2. The utility company will submit a plan to the Department within 30 days of the receipt of the afore described design plan if any construction is proposed on the particular bridge.
3. No permit for the installation of gas facilities on bridges will be considered unless MassDOT has received from the Department a letter approving the design.
4. All requests for permits for gas facilities on new bridges shall be directed to the Highway and Structures Engineer at the Highway Division of MassDOT.
5. All requests for new gas facilities on existing bridges shall be directed to the Maintenance Engineer at the Highway Division of MassDOT.

(11) Casing. (Section 192.323 MFS Standards.) Where a pipeline is or is to be subjected to a maximum operating pressure in excess of 200 psig, it shall not be laid or maintained (for the purpose of 220 CMR 101.06, maintained shall mean any action of moving, replacing or changing the pipeline for the purposes of upkeep, repair, renewal or replacement) under a highway pavement or under a railroad except where it is necessary to cross a highway or railroad. Whenever such crossings are required, they shall be made as nearly as practicable, to an angle of 90° to the center line of the highway or railroad. In the case of a railroad or highway crossing, the pipe shall be enclosed in a casing. Each casing used on a transmission line or main under a highway or railroad must comply with the following.

(a) The casing must be designed to withstand the superimposed loads.
(b) If there is a possibility of water entering the casing, the ends must be sealed.
(c) If the ends of an unvented casing are sealed and the sealing is strong enough to retain the maximum allowable operating pressure of the pipe, the casing must be designed to hold this pressure at a stress level of not more than 72% of SMYS.
(d) If vents are installed on a casing, the vents must be protected from the weather to prevent water from entering the casing.
(e) In addition to 220 CMR 101.06(11)(a) through 101.06(11)(d), casings under railroads in which the gas carrier pipe is or is to be subjected to operating pressure in excess of 200 psig shall meet the requirements of the specification in API Code No. 1102 (December 2007) issued by the American Petroleum Institute, Recommended Practice for Liquid Petroleum Pipelines Crossings Railroads and Highways.
(f) Casings under highways in which the gas carrier pipe is or is to be

subjected to operating pressures in excess of 200 psig shall be designed in accordance with 220 CMR 101.06(11)(e) except that the minimum distance from the top of the casing to the used surface of the road shall be four feet, six inches and the casing shall extend beyond the edges of the pavement or of the used surface of the road where there is no pavement, a distance of not less than 25 feet or to the line of the right of way, whichever is the lesser. (See also M.G.L. c. 164, § 72 and 220 CMR 111.00: *Construction of Streets, Places and Ways, Except Residential Driveways, Over, Along or Across High Pressure Gas Mains Operating at Pressures in Excess of 200 PSIG*).

(12) Cover. (Section 192.327 MFS Standards.)

(a) Except as provided in 220 CMR 101.06(12)(c) each buried transmission line must be installed with a minimum cover as follows:

TABLE I

Location	Normal Soil Inches	Consolidated Rock Inches
Class 3 and 4 locations	36	24
Drainage and ditches of public roads and railroad crossings	36	24

(b) Gas mains to be installed in highways under the jurisdiction and control of the MassDOT shall be laid with a minimum cover of 36 inches from the top of the main to the used surface of the road.

(c) Except as provided in 220 CMR 101.06(12)(d) and (e), each buried main must be installed with at least 24 inches of cover.

(d) Where an underground structure prevents the installation of a transmission line or main with the minimum cover, the transmission line or main may be installed with less cover if it is provided with additional protection to withstand anticipated external loads.

(e) A main may be installed with less than 24 inches of cover providing:

1. Adequate measures are taken to prevent damage to the pipe by external forces.
2. That the maximum allowable operating pressure will produce a stress level of less than 20% of SMYS.
3. That the Department approves the installation.

(13) Service Lines Valve Requirements. (Section 192.363 MFS Standards). Each service line valve on an intermediate pressure or high pressure service line installed above ground or in an area where the blowing of gas would be hazardous, must be designed and constructed to minimize the possibility of the removal of the core of the valve with other than specialized tools.

(14) Service Lines Location of Valves. (Section 192.365 MFS Standards.) All intermediate and high pressure services and all services two inches in diameter or larger shall be equipped with an underground curb shut off located in proximity to the property line, except that whenever gas is supplied to a theatre, church, school, factory, or other buildings where large numbers of persons assemble, an outside shut off in such case will be required regardless of the size of the service or of the service pressure. All underground curb shut offs shall be readily identifiable and available for easy access by gas company personnel.

(15) Test Requirements for Pipelines to Operate at a Hoop Stress Less than 30% of SMYS and Above 100 psig. (Section 192.507 MFS Standards.) Except for service lines and plastic pipelines, each segment of a pipeline that is to be operated at a hoop stress less than 30% of SMYS and above 100 psig must be tested in accordance with the following:

(a) The pipeline operator must use a test procedure that will ensure discovery of all potentially hazardous leaks in the segment being tested. However, loss of pressure due to leakage during the test period is not permitted.

(b) If, during the test, the segment is to be stressed to 20% or more of SMYS and natural gas, inert gas, or air is the test medium:

1. A leak test must be made at a pressure between 100 psig and the pressure required to produce a hoop stress of 20% of SMYS; or
2. The line must be walked to check for leaks while the hoop stress is held at approximately 20% of SMYS.

(c) Steel gas mains to be operated at pressures from 100 psig to 150 psig shall be air or hydrostatically tested for tightness to 1.5 times the maximum allowable operating pressure for at least one hour.

(d) Steel gas mains to be operated at pressures in excess of 150 psig shall be air or hydrostatically tested for tightness to 1.5 times the maximum operating pressure for at least four hours and may be witnessed by the Department. Calibrated recording instruments shall be verified by dead weight instruments and the recording submitted to the Department for certification that the steel gas main as defined may be operated at a pressure which is equal to the test pressure divided by a factor of 1.5.

(16) Test Requirements for Pipelines to Operate at or Below 100 psig. (Section 192.509 MFS Standards.) Except for service lines and plastic pipelines, each segment of a pipeline that is to be operated at or below 100 psig must be leak tested in accordance with the following:

(a) The pipeline operator must use a test procedure that will ensure discovery of all potentially hazardous leaks in the segment being tested. However, loss of pressure due to leakage during the test period is not permitted.

(b) At a test pressure of at least 90 psig for at least one hour.

(c) The tie-in joints to the live gas main, cast iron or steel, shall be tested using the soap bubble test.

(17) Test Requirements for Service Lines. (Section 192.511 MFS Standards.)
(a) Each segment of a service line (other than plastic) must be leak tested in accordance with 220 CMR 101.06 before being placed in service. If feasible, the service line connection to the main must be included in the test. If not feasible, it must be given a leakage test at the operating pressure when placed in service.
(b) Each segment of a service line (other than plastic) to operate at not more than 100 psig shall be tested after construction and before being placed into service to at least 90 psig for not less than 15 minutes. Pressure loss due to leakage during the test period is not permitted.
(c) Each segment of a service line (other than plastic) to operate at pressures in excess of 100 psig must be tested in accordance with 49 CFR 192.507 of the MFS Standards.

(18) Test Requirements for Plastic Mains and Services. (Section 192.513 MFS Standards.)
(a) The test procedure must ensure discovery of all potentially hazardous leaks in the segment being tested. However, loss of pressure due to leakage during the test period is not permitted.
(b) The test pressure shall be at least 150% of the maximum operating pressure or 90 psig whichever is the greater, for at least 15 minutes for services, or one hour for mains. However, the maximum test pressure may not be more than three times the design pressure of the pipe.

(19) Maximum Allowable Operating Pressure, Intermediate Pressure and High Pressure Distribution Systems. (Section 192.621 MFS Standards.) No person may operate a segment of an intermediate pressure or high pressure distribution system at a pressure that exceeds the lowest of the applicable pressures shown in 49 CFR 192.621(a)(1) through (5) and (b) of the MFS Standards.

(20) Odorization of Gas. (Section 192.625 MFS Standards.)
(a) A combustible gas in a distribution line shall have a distinctive odor of sufficient intensity so that a concentration of 0.15% gas in the air is readily perceptible to the normal or average olfactory senses of a person coming from fresh uncontaminated air into a closed room containing one part of the gas in 666 parts of air.
(b) In the concentrations in which it is used, the odorant in combustible gases must comply with the following:
1. The odorant may not be deleterious to persons, material, or pipe.
2. The products of combustion from the odorant may not be toxic

when breathed nor may they be corrosive or harmful to those materials to which the products of combustion will be exposed.

(c) The odorant may not be soluble in water to an extent greater than 2.5 parts to 100 parts by weight.

(d) Equipment for odorization must introduce the odorant without wide variations in the level of odorant.

(e) Equipment and facilities for handling the odorant shall be located so as to minimize the effect of an escape of odorant.

(f) Each operator shall conduct periodic samplings of the combustible gases to assure the proper concentration of odorant in accordance with 220 CMR 101.06.

(21) Distribution Systems Leakage Surveys and Procedures. (Section 192.723 MFS Standards.) Each operator having a gas distribution system shall conduct leakage surveys, as frequently as experience and technology indicates they are necessary, but in no event shall such leakage surveys be less than the following minimum standards:

(a) Business Districts. A gas detector survey must be conducted in business districts including tests of the atmosphere in gas, electric, telephone, sewer and water system manholes, at cracks in pavement and sidewalks, and at other locations providing an opportunity for finding gas leaks, at least once in every consecutive 12 month period. In areas where an effectively prescribed and supervised survey of electric or other manholes and vaults is conducted and offers more frequent coverage than the previous, such a survey procedure may be substituted. Business districts are defined as areas with pavement from building wall to building wall and/or where the principal commercial activity of the city or town takes place. Such areas shall be outlined on a map and maintained by the operator.

(b) Distribution System Areas Not Included in the Principal Business District. Leakage surveys shall be made of the area not included in the principal business district at least once in every consecutive 24 month period.

(c) Type of Survey. Leakage surveys for 220 CMR 101.06(21)(a) and (b) shall include one or more of the following:

1. Gas detector surveys using combustible gas indicators, flame ionization equipment, infra-red equipment or other industry accepted testing equipment;
2. Bar tests;
3. Vegetation surveys;
4. Pressure drop tests.

(d) Other Surveys. In addition to the requirements of 220 CMR 101.06(21)(a) and (b), a survey of schools, churches, hospitals, theatres, and arenas shall be conducted at least once annually. The survey shall

include tests for gas leakage and visual inspection of gas facilities in the immediate area of the service entrance.

(e) Hazardous Conditions Repaired. All disclosed conditions of a nature hazardous to persons or property shall be promptly made safe and permanent repairs instituted.

(f) Leakage Survey Records. Records of the leakage surveys required under 220 CMR 101.06 shall be maintained for a period of time not less than the interim between successive surveys.

(22) Test Requirements for Reinstating Service Lines. (Section 192.725 MFS Standards)

(a) For the purpose of 220 CMR 101.06(22), each service line, temporarily disconnected from the main and to be operated at a pressure not in excess of one psig, shall be tested at a pressure of at least ten psig for not less than 15 minutes. Pressure loss due to leakage during the test period is not permitted.

(b) The operator shall make and retain a record of each pressure test required under 49 CFR 192.725 MFS Standards.

REGULATORY AUTHORITY

220 CMR 101.00: M.G.L. c. 164, §§ 66, 76, 76C, and 105A.

220 CMR 104.00: PETROLEUM GAS PLANTS

Section

104.01: Petroleum Gas Plants

All liquefied petroleum gas plants in Massachusetts shall be constructed, operated, and maintained according to the requirements of National Fire Protection Association 59 Utility LP-Gas Plant Code (2004) (NFPA 59), and applicable provisions of 220 CMR 101.00: *Massachusetts Natural Gas Pipeline Safety Code* and 49 CFR Parts 40, 192, and 199.

104.02: Applications for Exceptions and Waivers

(1) A gas corporation or municipal gas department may make written request to the Department of Public Utilities (Department) for exception from any of the provisions of NFPA 59 or 220 CMR 104.01. The Department may, after consideration, and the payment of the appropriate fee, issue the requested exception or modification to the specific gas corporation or municipal gas department requesting such exception. Upon request or in an emergency, a verbal exception may be granted by the Department. This verbal request for grant of exception must be subsequently confirmed in writing to the Department within seven days of the time the exception is granted.

(2) The Department may issue a waiver to a gas corporation or municipal gas department from provisions of 49 CFR Part 40, 192, or 199 of the federal regulations, providing that the waiver pertains to an intrastate facility and the Department gives notice of such waiver to the U.S. Department of Transportation at least 60 days before the waiver is to become effective.

REGULATORY AUTHORITY

220 CMR 104.00: M.G.L. c. 164, §§ 66, 76, 76C, and 105A.

220 CMR 69.00~~:~~ PROCEDURES FOR THE DETERMINATION AND ENFORCEMENT OF VIOLATIONS OF SAFETY CODES ~~ADOPTED BY THE DEPARTMENT OF PUBLIC UTILITIES~~ PERTAINING TO ~~THE SAFETY OF~~ PIPELINE FACILITIES ~~AND THE~~, TRANSPORTATION OF NATURAL GAS, AND ~~FOR ENFORCEMENT OF SAID CODES; MINIMUM SAFETY STANDARDS FOR~~ LIQUEFIED NATURAL GAS FACILITIES~~; MINIMUM SAFETY STANDARDS FOR GAS PIPELINE SYSTEMS.~~.

Section

69.01: Purpose and Scope

220 CMR 69.00 ~~establish~~ establishes the ~~procedures~~procedure for determining the nature and extent of violations of codes ~~and~~, regulations, or rules adopted or enforced by the Department of Public Utilities ~~("~~(Department~~")~~) pertaining to the safety of pipeline facilities and the transportation of ~~gas~~natural gas and liquefied natural gas facilities, including~~,~~ but not limited to, 220 CMR 101.00 through ~~107~~113.00~~. 220 CMR 69.00 also establishes procedures for the enforcement of these codes and 220 CMR~~ and federal pipeline safety standards as set forth in 49 CFR Part 192, including ~~procedures for issuance of a notice of probable violation, a remedial order or a consent order with respect to such violations.~~all subsequent amendments; federal safety standards for liquefied natural gas (LNG) as set forth in 49 CFR Part 193, including all subsequent amendments; and federal drug and alcohol testing standards as set forth in 49 CFR Parts 40 and 199, including all subsequent amendments. 220 CMR 69.00 shall apply ~~only~~ to violations of these state codes and these federal codes ~~and 220 CMR which~~that occur at a time when the Department has submitted and has in effect the annual certification to the United States Secretary of Transportation provided for in ~~section 5(a) of the Natural Gas Pipeline Safety Act amendments of 1974 (~~49 U.S.C. ~~1674(a)),~~§ 60105, pursuant to the provisions of M.G.L. c. 164, § 105A. ~~220 CMR 69.00 also establish that the Department shall enforce the federal safety standards for liquefied natural gas ("LNG") facilities issued under~~

~~49 U.S.C. 1671, as set forth in 49 C.F.R. Part 193, and the federal safety standards for gas piping systems, as set forth in 49 C.F.R. Part 192.~~

69.02: Inspections

Officers, employees, or agents authorized by the Commission of the Department or its designee, upon presenting appropriate credentials, are authorized to enter upon, inspect and examine, at reasonable times and in a reasonable manner, the records and properties of gas companies and municipal gas departments to the extent such records and properties are relevant to determining the compliance of such gas companies and municipal gas departments with 220 CMR 101.00 through ~~107~~113.00, and/or ~~any other codes and regulations adopted by the Department pertaining to the safety of pipeline facilities~~49 CFR Parts 40, 192, 193 and ~~the transportation of gas.~~199. The facilities, reports, and records needed to ensure compliance with 220 CMR 69.00 shall be accessible to the Department for such inspections. Each gas company and municipal gas department shall provide the Department with such reports, supplemental data, and information as the Department may request for the enforcement and administration of 220 CMR 69.00, except that said companies and departments need not provide the Department with copies of security procedures for a pipeline facility, if such security procedures are made available at the facility for review and inspection by the Department.

69.03: Commencement of Enforcement Proceedings

(1) Warning Letters. Upon determining that a probable violation of 220 CMR 101.00 through 113.00 ~~or any provision of any other code or regulation or rule pertaining to the safety of pipeline facilities and the transportation of gas~~, and/or 49 CFR Parts 40, 192, 193 and 199 has occurred or is occurring, the Department may issue a warning letter notifying the owner or operator of the probable violation and advising the operator to correct it or be subject to enforcement action under 220 CMR 69.03(2) through 69.09. No such warning letter will be deemed to be based on a finding or adjudication by the Department that a violation exists, nor will it constitute evidence that a violation exists.

(2) Notice of Probable Violation. The Department may begin an enforcement proceeding by issuing a notice of probable violation ~~("~~(NOPV~~")~~) if the Department has reason to believe that a violation of 220 CMR 101.00 through 113.00 ~~or any provision of any other code or regulation or rule pertaining to the safety of pipeline facilities~~, and ~~the transportation of gas~~/or 49 CFR Parts 40, 192, 193 and 199 has occurred or is occurring. The NOPV may be issued by the Commission or its designee. The NOPV shall state the provision(s) of the codes, regulations or rules which the respondent is alleged to have violated and the evidence upon which the allegations are based, shall give notice of response options available to the respondent under 220 CMR ~~60~~69.04, and, if a civil penalty is proposed, shall state the amount of the proposed civil penalty and the maximum civil penalty for which the respondent may be liable under law.

69.04: Response Options

(1) Within 30 days of receipt of an NOPV, the respondent shall respond to the Department in one of the following ways:
(a) Pay the proposed civil penalty by check or money order made payable to the Commonwealth of Massachusetts and close the case;
(b) Submit an offer in compromise of the proposed civil penalty under 220 CMR 69.04(2);
(c) Request an informal conference under 220 CMR 69.05; or
(d) Submit a written reply to the Department disputing the violation(s) in the NOPV. The reply must include a complete statement of all relevant facts and authority and full description of the reasons why the respondent disputes the violation(s) alleged in the NOPV.

(2) An offer in compromise under 220 CMR 69.04(1)(b) is made by submitting a check or money order for the amount offered, payable to the Commonwealth of Massachusetts, to the Department. A respondent making an offer in compromise shall also submit written explanations, information, or other materials which may justify the Department's acceptance of the offer in compromise. If an offer in compromise is accepted by the Department, the respondent shall be notified in writing that the acceptance is in full settlement of the civil penalty action. If an offer in compromise is rejected by the Department, the check or money order shall be returned to the respondent with written notification. Within ten days of receipt of such notification, the respondent may request an informal conference under 220 CMR 69.05, or submit a written reply under 220 CMR 69.04(1)(d).

(3) Failure of the respondent to respond to the NOPV in accordance with 220 CMR 69.04 constitutes a waiver of ~~respondent's~~respondent's right to contest the allegations in the NOPV and authorizes the Department, without further notice to the respondent, to find the facts to be as alleged in the NOPV and to issue a final order.

69.05: Informal Review

(1) The informal review shall be conducted by an investigator designated by the Commission. The informal review shall consist of an informal conference, if the respondent has chosen this option under 220 CMR 69.04(1)(c), or an analysis of the respondent's written reply under 220 CMR 69.04(1)(d).

(2) At the informal conference, the respondent shall have the right to be represented by an attorney or other person, and shall have the right to present relevant documents to the investigator. The investigator shall make available to the respondent any evidence which indicates that the respondent may have violated any provision of 220 CMR 101.00 through ~~107.00, or any other code or regulation adopted by the Department pertaining to the safety of pipeline facilities and the transportation of gas~~113.00, and/or 49 CFR Parts 40, 192, 193 and 199, and the respondent or the respondent's

representative shall have the opportunity to rebut this evidence. However, this informal conference shall not be construed to be an adjudicatory hearing for purposes of M.G.L. c. 30A.

(3) The investigator shall make a decision in writing. If the respondent is not satisfied with the decision, the respondent may request an adjudicatory hearing, in writing, within seven days of the date of the decision. Failure to request an adjudicatory hearing within the time allowed will be deemed an admission of the factual allegations and legal conclusions stated in the investigator's decision, and the respondent shall be held liable to pay the civil penalty designated in the NOPV and to comply with a remedial order issued under 220 CMR 69.07.

69.06: Adjudicatory Hearing

(1) The adjudicatory hearing shall be a de novo hearing and shall be an ~~adjudicatary~~adjudicatory hearing for purposes of M.G.L. c. 30A, and shall be conducted pursuant to ~~the Department's procedural regulations,~~ 220 CMR 1.00: *Procedural Rules*.

(2) At the adjudicatory hearing, the respondent shall have the right to be represented by an attorney or other representative.

(3) If the Department finds, after the adjudicatory hearing, that the respondent has violated any provision of ~~the codes and 220 CMR pertaining to the safety of pipeline facilities and the transportation of gas~~220 CMR 101.00 through 113.00, and/or 49 CFR Parts 40, 192, 193 and 199, it may issue a remedial order pursuant to 220 CMR 69.07.

69.07: Remedial Orders

(1) If the Department finds that a violation has occurred or is occurring, it may issue a remedial order. The remedial order shall include a written opinion setting forth the factual and legal basis of the findings and shall direct any party to take or refrain from taking any action, including the payment of a fine or civil penalty provided by law.

(2) A remedial order issued by the Commission or its designee under 220 CMR 69.07 shall be effective upon issuance, in accordance with its terms, unless stayed, suspended, modified or rescinded.

(3) A remedial order is a final decision of the Commission within the meaning of M.G.L. c. 25, § 5, and subject to review by the Supreme Judicial Court.

(4) If the respondent fails either to appeal a remedial order to the Supreme Judicial Court or to comply fully with the order within 20 days after issuance of the order, the Department may refer the case to the Attorney General with a request that an action be

brought in the Superior Court to seek appropriate relief, including collection of assessed penalties.

69.08: Consent Orders

(1) Notwithstanding any other provision to the contrary, the Department may at any time resolve an outstanding enforcement issue with a consent order. A consent order must be signed by the person to whom it is issued, or a duly authorized representative, and must indicate agreement with the terms therein. A consent order need not constitute an admission by any person that a violation has occurred.

(2) A consent order is a final order of the Department, having the same force and effect as a remedial order issued pursuant to 220 CMR 69.07.

(3) A consent order shall not be appealable and shall include an express waiver of appeal or judicial review rights that might otherwise attach to a final order of the Department.

69.09: Civil Penalties

~~(1) Any person, firm or corporation that violates any provision of any code or regulation adopted by the Department pertaining to the safety of pipeline facilities and the transportation of gas shall be subject to a civil penalty not to exceed $1,000 for each violation for each day that the violation persists; provided, however, that the maximum civil penalty shall not exceed $200,000 for any related series of violations.~~

~~(2) In determining the amount of the civil penalty, the Department shall consider the nature, circumstances and gravity of the violation; the degree of the respondent's culpability; the respondent's history of prior offenses; the respondent's ability to pay; any good faith shown by the respondent in attempting to achieve compliance, after notification of a violation; the appropriateness of the penalty to the size of the business of the respondent; the effect on the respondent's ability to continue in business; and such other matters as justice may require.~~

The determination of the amount and appropriateness of a civil penalty shall be made pursuant to G.L. c. 164, § 105A.

69.10: Hazardous Facility Orders

(1) Except as provided by 220 CMR 69.10(2), if the Department finds, after reasonable notice and opportunity for hearing in accord with 220 CMR 69.10(3), a particular pipeline facility or LNG facility to be hazardous to life or property, it shall issue an order pursuant to 220 CMR 69.10 requiring the owner or operator of the facility to take corrective action. Corrective action may include suspended or restricted use of the facility, physical inspection, testing, repair, replacement, or other action, as appropriate.

(2) The Department may waive the requirement for notice and hearing under 220 CMR 69.10(1) before issuing an order pursuant to 220 CMR 69.10 when the Commission or its designee determines that failure to do so would result in the likelihood of serious harm to life or property. However, the Department shall include in the order an opportunity for hearing as soon as practicable after issuance of ~~the~~ an order. The provisions of 220 CMR 69.10(3)(a) apply to an owner or ~~operator's~~operator's decision to exercise such an opportunity for hearing. The purpose of such a post-order hearing is for the Department to determine whether the order should remain in effect or be rescinded or suspended in ~~accord~~accordance with 220 CMR 69.10(~~6~~7).

(3) Notice and ~~hearing~~Hearing:

(a) Written notice that the Department intends to issue an order under 220 CMR 69.10(3) shall be served upon the owner or operator of an allegedly hazardous facility. The notice shall allege the existence of a hazardous facility, stating the facts and circumstances supporting the issuance of a hazardous facility order, and providing the owner or operator an opportunity for a hearing, identifying the time and location of the hearing.

(b) An owner or operator may exercise the opportunity for a hearing under 220 CMR 69.10 by notifying the Department of that election in writing within ten days of service of the notice provided under 220 CMR 69.10(3)(a), or, when applicable, under 220 CMR 69.10(2). Absence of such written notification waives an owner or operator's opportunity for a hearing and allows the Department to proceed to issue a "hazardous facility order" in accordance with 220 CMR 69.10(4) through (7).

(c) A hearing under 220 CMR 69.10 shall be an adjudicatory proceeding as defined in M.G.L. c. 30A. The owner or operator of the allegedly hazardous facility shall have the right to be represented by an attorney at this hearing~~.~~

(d) If the Department finds the facility to be hazardous to life or property, the Department shall issue an order in accordance with 220 CMR 69.10. If it does not find the facility to be hazardous to life or property, the Department shall dismiss the allegations contained in the notice, and promptly notify the owner or operator in writing.

(4) The Department may find a pipeline facility or LNG facility to be hazardous under 220 CMR 69.10(1):

(a) If, under the facts and circumstances, the Department determines that the particular facility is hazardous to life or property; or

(b) If the pipeline facility or LNG facility or a component thereof has been constructed ~~or~~, operated, or maintained with any equipment, material or technique which the Department determines is hazardous to life or property, unless the operator involved demonstrates to the satisfaction of the Department that, under the particular facts and circumstances involved, such equipment, material or technique is not hazardous to life or property.

(5) In making a determination under 220 CMR 69.10(4), the Department shall consider, if relevant:

(a) The characteristics of the pipe, components, and other equipment used in the pipeline facility or LNG facility involved, including its age, manufacturer, physical properties (including its resistance to corrosion and deterioration), and the method of its manufacture, construction or assembly;

(b) The nature of the materials transported by such facility (including their corrosive and deteriorative qualities), the sequence in which such materials are transported, and the pressure required for such transportation;

(c) The aspects of the areas in which the pipeline facility or LNG facility is located, in particular, the climatic and geologic conditions (including soil characteristics) associated with such areas, and the population density and population and growth patterns of such areas; and

(d) Such other factors as the Department may consider appropriate.

(6) The hazardous facility order shall contain the following information:

(a) A finding that the pipeline facility or LNG facility is hazardous to life or property.

(b) The relevant facts which form the basis for that finding.

(c) The legal basis for the order.

(d) The nature and description of particular corrective action(s) required of the respondent.

(e) The date by which the required action(s) must be taken or completed, and, where appropriate, the duration of the order.

(f) If a hearing has been waived pursuant to 220 CMR 69.10(2), a statement that an opportunity for a hearing is provided at a particular location and at a certain time after issuance of the order.

(7) The Department shall rescind or suspend a hazardous facility order whenever it determines that the facility is no longer hazardous to life or property.

(8) At any time after an order issued under 220 CMR 69.10 has become effective, the Department may request the Attorney General to bring an action for appropriate equitable relief in the Supreme Judicial Court or the Superior Court, as provided in M.G.L. c. 164, § 79.

~~69.11: Safety Standards For Liquefied Natural Gas Facilities~~

~~Unless otherwise provided in 220 CMR, the safety standards for all liquefied natural gas facilities in the Commonwealth of Massachusetts shall be those issued under the Natural Gas Pipeline Safety Act of 1968, 49 U.S.C. 1671, as set forth in 49 C.F.R. Part 193, including all subsequent amendments thereto, effective as of the date stated in the Federal Register.~~

~~69.12: Gas Piping Systems - Compliance With Federal Safety Standards~~

~~Every gas piping system shall be constructed, operated and maintained, except as otherwise provided in 220 CMR, in compliance with the provisions of 49 C.F.R. Part 192, Transportation of Natural and Other Gas by Pipeline: Minimum Safety Standards ("MFS Standard"), including all subsequent amendments. The Department will maintain a reference file containing the aforementioned federal regulations.~~

REGULATORY AUTHORITY

220 CMR 69.00: M.G.L. c. 164, §§ 66, 76, 76C, and 105A.

220 CMR 101.00: ~~GENERAL REQUIREMENTS~~MASSACHUSETTS NATURAL GAS PIPELINE SAFETY CODE

Section

101.01: Compliance with MFS Standards

Every gas piping system shall be constructed, operated and maintained, except as otherwise provided in 220 CMR 101.00, in compliance with ~~the provisions of:~~ federal pipeline safety standards as set forth in 49 CFR Part 192~~ in Title 49, Code of Federal Regulations,~~: *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards* ~~published August 19, 1970 including the following amendments: 192-1, published October 21, 1970, through 192-35A, published April 7, 1980 (referred to herein as the~~ (MFS Standards). ~~Subsequent amendments, additions or revisions to the MFS Standards shall be reviewed by the Department. Changes of technical import which would affect the operation of gas distribution companies in Massachusetts shall be considered at a public hearing at the earliest opportunity but within a year's time of the date of issuance. The D.P.U. will maintain a reference file containing the aforementioned federal regulations and incorporated documents.~~

101.02: Applications for Exceptions and Waivers from 220 CMR 101.04, 101.05~~and~~, or 101.06

(1) A gas corporation or municipal gas department may make a written request to the ~~D.P.U.~~Department of Public Utilities (Department) for an exception to the provisions of 220 CMR 101.04, 101.05~~and~~, or 101.06. The ~~D.P.U.~~Department may, after consideration, and the payment of the appropriate fee, issue the exception requested or ~~modifications~~modification thereof to the particular gas corporation or municipality requesting such exception. In emergencies, a verbal exception may be granted by the ~~D.P.U.~~Department, which will then be confirmed by written request within seven days.

(2) The ~~D.P.U.~~ Department may issue a waiver to a gas corporation or

municipal gas department from ~~the~~a provision of 49 CFR Part 192 ~~in Title 49~~ of the ~~Federal~~federal regulations providing that the waiver pertains to an intrastate facility and the ~~D.P.U.~~Department gives notice of such waivers to the U.S. Department of Transportation at least 60 days before the waiver becomes effective.

101.03: ~~Listing of~~ Definitions ~~Contained in~~Based on 49 CFR Part 192 (Subpart A Section 192.3) of the MFS ~~Safeguards~~ Standards

As used in 220 CMR 101.~~00~~06, the following definitions apply:

Distribution ~~line~~Line means a pipeline other than a gathering or transmission line.

Gas means natural gas, flammable gas, or gas which is toxic or corrosive.

Gathering ~~line~~Line means a pipeline that transports gas from a current production facility to a transmission line or main.

High ~~pressure distribution system~~Pressure Distribution System means a distribution system in which the gas pressure in the main is higher than the pressure provided to the customer. (*See* 220 CMR 101.06.)

Listed ~~specification~~Specification means a specification listed in ~~220 CMR~~49 CFR Part 192, Appendix B ~~§ 1~~, section I.

Low ~~pressure distribution system~~Pressure Distribution System means a distribution system in which the gas pressure in the main is substantially the same as the pressure provided the customer. (*See* 220 CMR 101.06.)

Main means a distribution line that serves as a common source of supply for more than one service line.

Maximum ~~actual operating pressure~~Actual Operating Pressure means the maximum pressure that occurs during normal operations over a period of one year.

Maximum ~~allowable operating pressure~~Allowable Operating Pressure (MAOP) means the maximum pressure at which a pipeline or segment of a pipeline may be operated under 220 CMR 101.00.

Municipality means a city, county, or any other political subdivision of a State.

Offshore means beyond the line of ordinary low water along that portion of the coast of

the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

Operator means a person who engages in the transportation of gas.

Person means ~~an~~any individual, firm, joint venture, partnership, corporation, association, State, municipality, cooperative association, or joint stock association, and ~~includes~~including any trustee, receiver, assignee, or personal representative thereof.

Pipe means any pipe or tubing used in the transportation of gas, including pipe-type holders.

Pipeline means all parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other ~~appurtenances~~appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders and fabricated assemblies.

Pipeline ~~facility~~Facility means new and existing pipelines, rights~~-~~of~~-~~way, and any equipment facility, or building used in the transportation of gas or in the treatment of gas during the course of transportation.

Secretary means the U.S. Secretary of Transportation or any person to whom he has delegated authority in the matter concerned.

Service ~~line~~Line means a distribution line that transports gas from a common source of supply to:

(a) a customer meter or the connection to a customer's piping, whichever is farther downstream, or

(b) the connection to a customer's piping if there is no customer meter.

A customer meter is the meter that measures the transfer of gas from an operator to a consumer.

SMYS (specified minimum yield strength) is:

(a) For steel pipe manufactured in accordance with a listed specification, the yield strength specified as a minimum in that specification~~,~~; or

(b) For steel pipe manufactured in accordance with an unknown or unlisted specification, the yield strength determined in accordance with ~~220 CMR~~49 CFR 192.107(b).

State means each of the several states, the District of Columbia, and the Commonwealth of Puerto Rico.

Transmission ~~line~~Line means a pipeline, other than a gathering line, that:

(a) Transports gas from a gathering line or storage facility to a distribution center or storage facility~~,~~;
(b) Operates at a hoop stress of 20% or more of SMYS~~,~~; or
(c) Transports gas within a storage field.

Transportation of ~~gas~~Gas means the gathering, transmission, or distribution of gas by pipeline or the storage of gas in or affecting interstate or foreign commerce.

101.04: Notice of Proposed Construction

At least 48 hours prior to the start of construction of pipeline installations, notice shall be filed with the ~~D.P.U.~~Department in accordance with the requirements listed ~~below:~~in 220 CMR 101.04(1) through (3):

(1) Pipeline installation projects of 5000 feet or more in length: ~~ALL~~All such projects.

(2) Pipeline installation projects of 2500 feet to 5000 feet in length: 25% of such projects, or a maximum of three of the projects in a calendar year.

(3) If no pipeline installation projects in a calendar year meet the requirements of 220 CMR 101.04(1) and 101.04(2~~)~~), then there shall be reported to the ~~D.P.U.~~Department no less than three pipeline installations irrespective of the length, provided this number or more are undertaken.

101.05: ~~Conflict~~Preservation of Records

Nothing contained herein shall conflict with ~~D.P.U. 14725 pertaining to the maintenance~~220 CMR 75.00: *The Preservation of* ~~records~~*Records of Electric, Gas, and Water Utilities*.

101.06: Additional Rules or Modifications

Notwithstanding any provision of the MFS Standards which may allow less stringent requirements, the following additional rules or modifications shall apply.

(1) Low Pressure Distribution System. (Section 192.3 MFS Standards.) For the purpose of 220 CMR 101.06, a low pressure distribution system shall be defined as any system in which the gas pressure in the main is equal to or less than two psig.

(2) Intermediate Pressure Distribution System. (Section 192.3 MFS Standards.) For the purpose of 220 CMR 101.06, an intermediate pressure distribution

system shall be defined as any system in which the gas pressure in the main is greater than two psig but equal to or less than 60 psig.

(3) High Pressure Distribution System. (Section 192.3 MFS Standards.) For the purpose of 220 CMR 101.~~00~~06, a high pressure distribution system shall be defined as a system in which the pressure in the main is greater than 60 psig, but equal to or less than 200 psig.

(4) Class Locations. (Section 192.3 MFS Standards.)

(a) Gas pipelines which are to be operated at pressures in excess of 200 psig shall not be installed within 40 feet of any building intended for human occupancy unless class 4 construction design criteria are met, or such other design criteria as the ~~D.P.U.~~Department shall require.

(b) For the purpose of 220 CMR 101.00, every gas piping system shall be designed, constructed, tested, operated, and maintained using a class 3 location as a minimum class location designation.

(5) Design Limitations for Plastic Pipe. (Section 192.123 MFS Standards.)

(a) The wall thickness for thermoplastic pipe may not be less than 0.090 inches.

(b) The ~~D.P.U.~~Department may approve the use of reinforced thermosetting plastic pipe having a wall thickness not less than that listed in the following table:

~~Normal size in inches — Minimum Wall Thickness in inches~~

~~2 — 0.060~~
~~3 — 0.060~~
~~4 — 0.070~~
~~6 — 0.100~~

Normal Size in Inches	Minimum Wall Thickness in Inches
2	0.060
3	0.060
4	0.070
6	0.100

(6) Distribution Line Valves. (Section 192.181 MFS Standards.) Each high pressure and intermediate pressure distribution system must have valves spaced so as to reduce the time to shut down a section of main in an emergency. The

valve spacing is determined by the operating pressure, the size of mains, and the local physical conditions.

(7) Control of the Pressure of Gas Delivered from High Pressure Distribution System. (Section 192.197 MFS Standards.) For the purpose of 220 CMR 101.00, Section 192.197 of the MFS Standards shall be entitled: ~~"~~*Control of the* ~~pressure~~*Pressure of* ~~gas delivered~~*Gas Delivered from* ~~mains operating~~*Mains Operating at* ~~higher pressures than~~*Higher Pressures Than the* ~~pressure provided~~*Pressure Provided to the* ~~customer."~~*Customer.*

(8) Required Capacity of Pressure Relieving and Limiting Stations. (Section 192.201 MFS Standards.)

(a) Relief valves or other pressure limiting devices must be installed at or near each regular station controlling the pressure to a system operating at a pressure that is substantially the same as the pressure provided to the customer, with a capacity to limit the maximum pressure in the main to a pressure that will not exceed the safe operating pressure for any connected and properly adjusted gas utilization equipment.

(9) Inspection and Test of Welds. (Section 192.241 MFS Standards.)

(a) Notwithstanding the requirements of 220 CMR 101.~~05(11~~06(9)(b), not less than 10% of the welds randomly sampled over the length of at least three of the installations of which notice of construction is required under 220 CMR ~~104.00~~101.04 shall be radiographically examined and available to the ~~D.P.U.~~Department. If less than three installation projects are undertaken by any company, at least 10% of the welds shall be radiographically examined and available to the ~~D.P.U~~Department.

(b) The ~~D.P.U.~~Department may at any time visually inspect any welding and if it is considered faulty, order the operating company to subject the weld to a destructive test as outlined in ~~paragraph I of Appendix C of the~~ MFS Standards, Appendix C, paragraph I or to a radiographic examination.

(10) Protection from Hazards. (Section 192.317 MFS Standards.)

(a) The method of protecting all new piping on trestles and bridges shall be subject to the approval of the ~~D.P.U.~~Department. For each such bridge crossing, the operator shall submit a ~~-~~written request for approval and a detailed installation plan to the ~~D.P.U.~~Department that includes the following items:

1. The proposed nominal pipe diameter, wall thickness, (minimum wall thickness 0.237"), and the Specified Minimum Yield Strength~~.~~ (SMYS~~)~~).
2. The maximum operating pressure of the pipeline and the test

pressure. The maximum operating pressure for new pipelines on bridges shall not exceed 200 psig.

3. For nominal pipe diameters 12" or greater, a calculation of the hoop stress (H) in accordance with the following formula:

$$H = \frac{PD}{2t}$$

H = Hoop stress in pounds per square inch
P = Maximum Operating Pressure in pounds per square inch gauge
D = The specified outer diameter in inches
t = Specified wall thickness in inches (not less than 0.237").

4. Method of providing for expansion or contraction of the bridge, if necessary.
5. Pipe support details, number of supports, and distances between supports.
6. The plan shall indicate that valves are provided on both sides of the bridge and their approximate location.

(b) For bridges under the care and control of the Massachusetts Department of ~~Public Works,~~Transportation (MassDOT), the procedure for a ~~Department of Public Works~~MassDOT permit shall be as follows:

1. On new bridges, a preliminary design plan will be submitted by ~~the Department of Public Works~~MassDOT to the pertinent utility company notifying it of the proposed construction and suggested location of pipe on or in the bridge structure. (A copy of this letter will be forwarded to the ~~Chief Engineer~~Director of the Pipeline Engineering and Safety Division of the Department ~~of Public Utilities~~).
2. The utility company will submit a plan to the Department ~~of Public Utilities~~ within 30 days of the receipt of the afore described design plan if any construction is proposed on the particular bridge.
3. No permit for the installation of gas facilities on bridges will be considered unless ~~the Department of Public Works~~MassDOT has received from the Department ~~of Public Utilities~~ a letter approving the design.
4. All requests for permits for gas facilities on new bridges shall be directed to the Highway and Structures Engineer ~~of the Massachusetts Department of Public Works~~at the Highway Division of MassDOT.
5. All requests for new gas facilities on existing bridges shall be

directed to the Maintenance Engineer ~~of the Department of Public Works~~at the Highway Division of MassDOT.

(11) Casing. (Section 192.323 MFS Standards.) Where a pipeline is or is to be subjected to a maximum operating pressure in excess of 200 psig, it shall not be laid or maintained (for the purpose of 220 CMR 101.06, maintained shall mean any action of moving, replacing or changing the pipeline for the purposes of upkeep, repair, renewal or replacement) under a highway pavement or under a railroad except where it is necessary to cross a highway or railroad. Whenever such crossings are required, they shall be made as nearly as practicable, to an angle of 90° to the center line of the highway or railroad. In the case of a railroad or highway crossing, the pipe shall be enclosed in a casing. Each casing used on a transmission line or main under a highway or railroad must comply with the following.

(a) The casing must be designed to withstand the superimposed loads.

(b) If there is a possibility of water entering the casing, the ends must be sealed.

(c) If the ends of an unvented casing are sealed and the sealing is strong enough to retain the maximum allowable operating pressure of the pipe, the casing must be designed to hold this pressure at a stress level of not more than 72% of SMYS.

(d) If vents are installed on a casing, the vents must be protected from the weather to prevent water from entering the casing.

(e) In addition to 220 CMR 101.06(~~13~~11)(a) through 101.06(~~13~~11)(d), casings under railroads in which the gas carrier pipe is or is to be subjected to operating pressure in excess of 200 psig shall meet the requirements of the specification in API Code No. 1102 (~~September 1968~~December 2007) issued by the American Petroleum Institute, Recommended Practice for Liquid Petroleum Pipelines Crossings Railroads and Highways.

(f) Casings under highways in which the gas carrier pipe is or is to be subjected to operating pressures in excess of 200 psig shall be designed in accordance with 220 CMR 101.06(~~13~~11)(e) except that the minimum distance from the top of the casing to the used surface of the road shall be four feet, six inches and the casing shall extend beyond the edges of the pavement or of the used surface of the road where there is no pavement, a distance of not less than 25 feet or to the line of the right of way, whichever is the lesser. (See also M.G.L. c. ~~164, § 72, and D.P.U. 12769, June 21, 1960~~164, § 72 and 220 CMR 111.00: *Construction of Streets, Places and Ways, Except Residential Driveways, Over, Along or Across High Pressure Gas Mains Operating at Pressures in Excess of 200 PSIG*).

(12) Cover. (Section 192.327 ~~MFA~~MFS Standards.)

(a) Except as provided in 220 CMR 101.06(~~14~~12)(c) each buried transmission line must be installed with a minimum cover as follows:

~~TABLE 1~~

~~Location~~	~~Normal Soil Inches~~	~~Consolidated Rock Inches~~
~~Class 3 and 4 locations~~	~~36~~	~~24~~
~~Drainage and ditches of public roads and railroad crossings~~	~~36~~	~~24~~

TABLE I

Location	**Normal Soil Inches**	**Consolidated Rock Inches**
Class 3 and 4 locations	36	24
Drainage and ditches of public roads and railroad crossings	36	24

(b) Gas mains to be installed in highways under the jurisdiction and control of the ~~Massachusetts Department of Public Works~~MassDOT shall be laid with a minimum cover of 36 inches from the top of the main to the used surface of the road.

(c) Except as provided in 220 CMR 101.06(~~14~~12)(d) and ~~101.06(14)(~~(e), each buried main must be installed with at least 24 inches of cover.

(d) Where an underground structure prevents the installation of a transmission line or main with the minimum cover, the transmission line or main may be installed with less cover if it is provided with additional protection to withstand anticipated external loads.

(e) A main may be installed with less than 24 inches of cover providing:

1. Adequate measures are taken to prevent damage to the pipe by external forces.
2. That the maximum allowable operating pressure will produce a stress level of less than 20% of SMYS.
3. That the ~~D.P.U.~~Department approves the installation.

(13) Service Lines ~~—~~Valve Requirements. (Section 192.363 MFS Standards). Each service line valve on an intermediate pressure or high pressure service line installed above ground or in an area where the blowing of gas would be

hazardous, must be designed and constructed to minimize the possibility of the removal of the core of the valve with other than specialized tools.

(14) Service Lines ~~—~~Location of Valves. (Section 192.365 MFS Standards.) All intermediate and high pressure services and all services two inches in diameter or larger shall be equipped with an underground curb shut off located in proximity to the property line, except that whenever gas is supplied to a theatre, church, school, factory, or other buildings where large numbers of persons assemble, an outside shut off in such case will be required regardless of the size of the service or of the service pressure. All underground curb shut offs shall be readily identifiable and available for easy access by gas company personnel.

(15) Test Requirements for Pipelines to Operate at a Hoop Stress Less than 30% of SMYS and Above 100 psig. (Section 192.507 MFS Standards.) Except for service lines and plastic pipelines, each segment of a pipeline that is to be operated at a hoop stress less than 30% of SMYS and above 100 psig~~,~~ must be tested in accordance with the following:

(a) The pipeline operator must use a test procedure that will ensure discovery of all potentially hazardous leaks in the segment being tested. However, loss of pressure due to leakage during the test period is not permitted.

(b) If, during the test, the segment is to be stressed to 20% or more of SMYS and natural gas, inert gas, or air is the test medium:

1. A leak test must be made at a pressure between 100 psig and the pressure required to produce a hoop stress of 20% of SMYS; or
2. The line must be walked to check for leaks while the hoop stress is held at approximately 20% of SMYS.

(c) Steel gas mains to be operated at pressures from 100 psig to 150 psig shall be air or hydrostatically tested for tightness to 1.5 times the maximum allowable operating pressure for at least one hour.

(d) Steel gas mains to be operated at pressures in excess of 150 psig shall be air or hydrostatically tested for tightness to 1.5 times the maximum operating pressure for at least four hours and may be witnessed by the ~~D.P.U.~~Department. Calibrated recording instruments shall be verified by dead weight instruments and the recording submitted to the ~~D.P.U.~~Department for certification that the steel gas main as defined may be operated at a pressure which is equal to the test pressure divided by a factor of 1.5.

(16) Test Requirements for Pipelines to Operate at or Below 100 psig. (Section 192.509 MFS Standards.) Except for service lines and plastic pipelines, each segment of a pipeline that is to be operated at or below 100 psig must be leak tested in accordance with the following:

(a) The pipeline operator must use a test procedure that will ensure discovery of all potentially hazardous leaks in the segment being tested. However, loss of pressure due to leakage during the test period is not permitted.
(b) At a test pressure of at least 90 psig for at least one hour.
(c) The tie-in joints to the live gas main, cast iron or steel, shall be tested using the soap bubble test.

(17) Test Requirements for Service Lines. (Section 192.511 MFS Standards.)
(a) Each segment of a service line (other than plastic) must be leak tested in accordance with 220 CMR 101.06 before being placed in service. If feasible, the service line connection to the main must be included in the test. If not feasible, it must be given a leakage test at the operating pressure when placed in service.
(b) Each segment of a service line (other than plastic) to operate at not more than 100 psig shall be tested after construction and before being placed into service to at least 90 psig for not less than 15 minutes. Pressure loss due to leakage during the test period is not permitted.
(c) Each segment of a service line (other than plastic) to operate at pressures in excess of 100 psig must be tested in accordance with ~~section~~49 CFR 192.507 of the MFS Standards.

(18) Test Requirements for Plastic Mains and Services. (Section 192.513 MFS Standards.)
(a) The test procedure must ensure discovery of all potentially hazardous leaks in the segment being tested. However, loss of pressure due to leakage during the test period is not permitted.
(b) The test pressure shall be at least 150% of the maximum operating pressure or 90 psig whichever is the greater, for at least 15 minutes for services, or one hour for mains. However, the maximum test pressure may not be more than three times the design pressure of the pipe.

(19) Maximum Allowable Operating Pressure, Intermediate Pressure and High Pressure Distribution Systems. (Section 192.621 MFS Standards.) No person may operate a segment of an intermediate pressure or high pressure distribution system at a pressure that exceeds the lowest of the applicable pressures shown in ~~Sections~~49 CFR 192.621(a~~), (~~)(1~~), (2), (3), (4),~~ through (5~~),~~) and (b) of the MFS Standards.

(20) Odorization of Gas. (Section 192.625 MFS Standards.)
(a) A combustible gas in a distribution line shall have a distinctive odor of sufficient intensity so that a concentration of 0.15% gas in the air is readily perceptible to the normal or average olfactory senses of a person

coming from fresh uncontaminated air into a closed room containing one part of the gas in 666 parts of air.

(b) In the concentrations in which it is used, the odorant in combustible gases must comply with the following:
1. The odorant may not be deleterious to persons, material, or pipe.
2. The products of combustion from the odorant may not be toxic when breathed nor may they be corrosive or harmful to those materials to which the products of combustion will be exposed.

(c) The odorant may not be soluble in water to an extent greater than 2.5 parts to 100 parts by weight.

(d) Equipment for odorization must introduce the odorant without wide variations in the level of odorant.

(e) Equipment and facilities for handling the odorant shall be located so as to minimize the effect of an escape of odorant.

(f) Each operator shall conduct periodic samplings of the combustible gases to assure the proper concentration of odorant in accordance with 220 CMR 101.06.

(21) Distribution Systems Leakage Surveys and Procedures. (Section 192.723 MFS Standards.) Each operator having a gas distribution system shall conduct leakage surveys, as frequently as experience and technology indicates they are necessary, but in no event shall such leakage surveys be less than the following minimum standards:

(a) Business Districts. A gas detector survey must be conducted in business districts including tests of the atmosphere in gas, electric, telephone, sewer and water system manholes, at cracks in pavement and sidewalks, and at other locations providing an opportunity for finding gas leaks, at ~~intervals not exceeding one year.~~least once in every consecutive 12 month period. In areas where an effectively prescribed and supervised survey of electric or other manholes and vaults is conducted and offers more frequent coverage than the previous, such a survey procedure may be substituted. Business districts are defined as areas with pavement from building wall to building wall and/or where the principal commercial activity of the city or town takes place. Such areas shall be outlined on a map and maintained by the operator.

(b) Distribution System Areas Not Included in the Principal Business District. Leakage surveys shall be made of the area not included in the principal business district at least once in every consecutive 24 month period.

(c) Type of Survey. Leakage surveys for 220 CMR 101.06(21)(a) and ~~101.06(21)((~~(b) shall include one or more of the following:
1. Gas detector surveys using combustible gas indicators, flame ionization equipment, infra-red equipment or other industry

accepted testing equipment~~.~~;

2. Bar tests~~.~~;
3. Vegetation surveys~~.~~;
4. Pressure drop tests.

(d) Other Surveys. In addition to the requirements of 220 CMR 101.06(21)(a) and ~~101.06(21)(~~(b), a survey of schools, churches, hospitals, theatres, and arenas shall be conducted at least once annually. The survey shall include tests for gas leakage and visual inspection of gas facilities in the immediate area of the service entrance.

(e) Hazardous Conditions Repaired. All disclosed conditions of a nature hazardous to persons or property shall be promptly made safe and permanent repairs instituted.

(f) Leakage Survey Records. Records of the leakage surveys required under 220 CMR 101.06 shall be maintained for a period of time not less than the interim between successive surveys.

(22) Test Requirements for Reinstating Service Lines. (Section 192.725 MFS Standards)

(a) For the purpose of 220 CMR 101.06(22), each service line, temporarily disconnected from the main and to be operated at a pressure not in excess of one psig, shall be tested at a pressure of at least ten psig for not less than 15 minutes. Pressure loss due to leakage during the test period is not permitted.

(b) The operator shall make and retain a record of each pressure test required under ~~Section~~49 CFR 192.725 MFS Standards.

REGULATORY AUTHORITY

220 CMR 101.00: M.G.L. c. 164, §§ 66, 76, 76C, and 105A.

220 CMR 104.00: ~~DESIGN, OPERATION, AND MAINTENANCE OF LIQUEFIED~~ PETROLEUM GAS PLANTS ~~AND RELATED FACILITIES~~

Section

104.01: ~~Approval of Equipment~~ Petroleum Gas Plants
104.02: ~~Electrical Equipment in Classified Areas~~
~~104.03: Source of Ignition~~
~~104.04: Location of Nonrefrigerated Containers~~
~~104.05: Installation of Nonrefrigerated Storage Containers~~
~~104.06: Location of Refrigerated Containers~~
~~104.07: Loading~~ Applications for Exceptions and ~~Unloading Facility Spacing~~Waivers

104.~~08: Piping Materials~~
~~104.09: Piping Materials~~
~~104.10: Container Valves and Accessories~~
~~104.11: Filler and Discharge Pipes, Manifolds~~
~~104.12: Hose Specifications for Nonrefrigerated LP~~01: Petroleum Gas Plants
~~104.13: Vaporizers Not Directly Heated with Open Flame~~
~~104.14: Direct Fired Vaporizers~~
~~104.15: Testing Relief Devices~~
~~104.16: Transfer of Liquids Within a Utility Plant~~
~~104.17: Fire Protection and Safety -- General~~
~~104.18: Fire Protection and Safety -- General~~
~~104.19: Personnel Safety~~

All liquefied petroleum gas plants in Massachusetts shall be constructed, operated, and maintained ~~except as otherwise provided in 220 CMR 104.00,~~ according to the requirements ~~in the latest edition of the~~of National Fire Protection Association ~~Pamphlet No.~~ 59 Utility LP-Gas Plant Code (2004) (NFPA 59), and applicable provisions of 220 CMR 101.00: *Massachusetts Natural Gas Pipeline Safety Code* and 49 CFR Parts 40, 192, and 199.

104.02: ~~(1968) except~~Applications for ~~changes or additions made in the various sections as follows:~~Exceptions and Waivers

(1) A gas corporation or municipal gas department may make written request to the Department of Public Utilities (Department) for exception from any of the provisions of ~~this order.~~NFPA 59 or 220 CMR 104.01. The Department may, after consideration, and the payment of the appropriate fee, issue the requested exception or modification to the specific gas corporation or municipal gas department requesting such exception. Upon request or in an emergency, a verbal exception may be granted by the

Department. This verbal request for grant of exception must be subsequently confirmed in writing to the Department within ~~72 hours~~seven days of the time the exception is granted.

~~104.01: Approval of Equipment~~

(2) The ~~authority having jurisdiction is the~~ Department ~~of Public Utilities.~~
~~(NFPA 15)~~
may issue a waiver to a gas corporation or municipal gas department from provisions of 49 CFR Part 40, 192, or 199 of the federal regulations, providing that the waiver pertains to an intrastate facility

~~104.02: Electrical Equipment in Classified Areas~~

~~Fixed electrical equipment~~ and ~~wiring installed within classified areas specified in Table 1 shall comply with Table 1 and shall be installed in accordance with the current Massachusetts Electrical Code (527 CMR 12.00) for hazardous locations. (NFPA 18)~~

~~104.03: Source of Ignition~~

~~An individual company may designate smoking areas such as the boiler room, dispatch office, etc. (NFPA 19)~~

~~104.04: Location of Nonrefrigerated Containers~~

~~(1) Serious Mutual Exposure. Where serious mutual exposure between container(s) and adjacent properties prevails,~~ the Department ~~may require greater distances or special protection in accordance with good fire protection engineering practices be provided. Special protection may consist of mounding or burying containers or providing fixed water spray or monitor nozzle protection. (NFPA 24)~~

~~(2) Nonrefrigerated Containers, Above Ground. The authority having jurisdiction is the~~ gives notice of such waiver to the U.S. Department of ~~Public Utilities.~~

~~104.05: Installation of Nonrefrigerated Storage Containers~~

~~To minimize the possibilities for trespassing and tampering, the area which includes container appurtenances, pumping equipment and loading and unloading facilities shall be protected by one of the following methods:~~

~~(1) Enclosure with~~Transportation at least ~~a six foot high industrial type fence unless~~

~~otherwise adequately protected. There shall be at least two means of emergency access through the fenced or other enclosure.~~

~~(2) As an alternative to fencing the operating area, suitable devices which can be locked in place shall be provided. Such devices, when in place, shall effectively prevent unauthorized operation of any of the containers, appurtenances, system valves or equipment.~~

~~(3) Locks with frangible shanks shall be used. (NFPA 25)~~

~~104.06: Location of Refrigerated Containers~~

~~The authority having jurisdiction is the Department of Public Utilities.~~

~~104.07: Loading and Unloading Facility Spacing~~

~~(1) Loading and unloading connections shall be at least 75 feet away from uncontrolled sources of ignition, process areas, control buildings, offices, shops and other occupied or important plant structures. This does not apply to structures or equipment directly associated with the transfer operations. (NFPA 38)~~

~~(2) The filling pipe inlet terminal shall not be located inside a building. Such terminals shall be located not less than ten feet from any building, and not less than five feet from any driveway, and shall be properly supported and protected from the possibility of physical damage. (NFPA 38)~~

~~(3) A tank vehicle loading and unloading area shall be of sufficient size to accommodate the vehicles without excessive movement or turning. (NFPA 38)~~

~~(4) Transfer piping, pumps and compressors shall be located so that they are safe from damage by rail or vehicle movement and liquid transfer operations. The design of any pier support, abutment or device used for this purpose shall be approved by the D.P.U. (NFPA 38)~~

~~104.08: Piping Materials~~

~~(1) Piping shall be suitable for its intended use at the temperature of the application and shall be designed for not less than the maximum pressure and for the minimum temperature~~ 60 days before the waiver is to ~~which it may be subjected. The temperature change occurring during the conversion from the gaseous to the liquid phase permits the use of several materials, each having its own specific utilization temperature range. The design and fabrication of piping systems shall be in~~

~~accordance with ANSI B31.3, Petroleum Refinery Piping, 1973, except as modified by the provisions of 220 CMR 104.08 and any applicable Federal pipeline regulations. (NFPA 41)~~become effective.

~~(2) Propane plant piping systems shall be designed to comply with DOT (Office of Pipeline Safety) Standard, Parts 192 and 195, whichever is applicable. (NFPA 41)~~

~~104.09: Piping Materials~~

~~(1) All liquefied petroleum gas plants and related facilities to be constructed, or where major reconstruction is involved, shall be designed to enable isolation of piping sections or systems for periodic retesting. (NFPA 41)~~

~~(2) All gas valves shall be inspected for proper operation at least once each year by the operator, and records maintained by the operator. (NFPA 41)~~

~~(3) Connections and fittings shall be inspected monthly by the operator with a combustible gas indicator for possible leakage. Visual inspection shall be made to assure that all rain caps are in a closed position and that there are no hazardous or unusual conditions at the plant. A record of the date of inspection must be made and retained by the operator. If automatic sensing devices are installed, monthly combustible gas indication tests are not required. (NFPA 41)~~

~~104.10: Container Valves and Accessories~~

~~All storage tanks shall undergo inspection and test of excess flow valves, liquid level devices and gauge connections at ten year intervals by the operator. (NFPA 42)~~

~~104.11: Filler and Discharge Pipes, Manifolds~~

~~(1) The filling pipe inlet terminal shall not be located inside a building. Such terminals shall be located not less than ten feet from any building, and not less than five feet from any driveway, and shall be properly supported and protected from the possibility of physical damage. (NFPA 43)~~

~~(2) The liquid manifold connections shall be located at non-adjacent ends of parallel rows of containers. (NFPA 43)~~

~~(3) In the design of the liquid piping system, shut off or block valves shall be installed to limit the volume of liquid that could be discharged in the vicinity of containers or important structures in the event of a liquid line failure.~~

Automatically or remotely controlled valves, or both, of the fail-safe type, shall be used. The mechanism for such valves shall be provided with a secondary control equipped with a fusible release (not over 220°F melting point) which will cause the valve to close automatically in the case of fire. Such valves shall also be capable of being manually operated at the installed location. Such valves within 300 feet of a container or important structure shall be arranged to limit the quantity that could be discharged to a maximum of 300 cubic feet of liquid. In no case shall there be more than 150 feet between valves on the same line within 300 feet of a container or important structure. (NFPA 43)

104.12: Hose Specifications for Nonrefrigerated LP Gas

Hoses used for loading or unloading may be either conductive or nonconductive electrically. Each hose shall be tested by the operator at two year intervals to twice the design pressure of the vessel or piping to which it may be attached. Conductive hoses shall be tested electrically at the same time. Any deterioration in conductivity shall result in discarding the hose under test. Under no circumstances shall either type of hose be connected to any vessel or piping until a grounding conductor has been connected across gap to be filled by the hose. All hoses shall be identified by number and test dates recorded and retained by the operator. (NFPA 45).

104.13: Vaporizers Not Directly Heated with Open Flame

Vaporizers shall not be installed in the same room with units furnishing air other than for a liquefied petroleum gas mixing device. Vaporizers must not be installed in buildings, rooms or structures in which open flames or fire may exist. Such structures shall be of light fire resistive construction or equivalent, well ventilated near the floor line and at the highest point in the roof. (NFPA 52).

104.14: Direct Fired Vaporizers

Direct fired vaporizers may be installed in buildings, rooms or structures used exclusively for vaporizing LP gas. (NFPA 53).

104.15: Testing Relief Devices

(1) Relief valves installed on tanks shall be removed and tested for design capability at five year intervals. If a relief valve does not meet design criteria on test as outlined in section 6 of NFPA pamphlet No. 59, it shall be promptly discarded. (NFPA 62).

(2) Relief devices installed between each pair of blocking valves shall be tested or

replaced at five year intervals. A record shall be kept by the operator of test or replacement date. (NFPA 62).

104.16: Transfer of Liquids Within a Utility Plant

(1) A person qualified by the operator shall be in constant attendance and maintain continued surveillance of connections at tank vehicles or tank cars during loading and unloading operations. (NFPA 72).

(2) The back pressure check valve shall be installed as near as possible to the hose connections. (NFPA 72).

104.17: Fire Protection and Safety -- General

Equipment and procedures incident to the use of said equipment shall be designed to minimize the consequences of accidentally released LPG, flammable refrigerants or flammable gases in facilities constructed and arranged in accordance with the Code. (NFPA 81).

104.18: Fire Protection and Safety -- General

(1) Detailed plans shall be made to cover emergency procedures, emphasizing shutdown, cutting off gas supply and liquid flow into the plant, isolation of various portions of the equipment, depressurizing and other applicable steps to insure that the escape of gas or liquid is promptly cut off or reduced. These plans shall be available for review and approval by the Department prior to operation of the plant. (NFPA 81).

(2) Emergency controls shall be conspicuously marked with signs designating their function. (NFPA 81).

(3) Each gas company shall initiate a training program with the local fire department. The training program shall include training on controls and piping systems, fire fighting equipment and various exercises simulating fires and explosions. A report shall be submitted quarterly to the Department outlining the training program. This report shall also include the number of company personnel and fire department employees. The program may be augmented by any requirements of the local fire department. (NFPA 81).

104.19: Personnel Safety

Personnel shall be advised by conspicuous posting at strategic locations of the serious danger from frostbite which can result upon contact with LPG or cold

~~refrigerants. Suitable protective clothing and equipment shall be available. (NFPA 90).~~

REGULATORY AUTHORITY

220 CMR 104.00: M.G.L. c. 164, §§ 66, 76, 76C, and 105A.