



800 North Third Street, Suite 205, Harrisburg, Pennsylvania 17102
Telephone (717) 901-0600 • Fax (717) 901-0611 • www.energypa.org

July 16, 2012

2950

RECEIVED

JUL 16 2012

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

Rosemary Chiavetta, Esq., Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor
Harrisburg, Pennsylvania 17120

RE: Proposed Rulemaking Order
Re: Amendment to 52 Pa. Code §59.18 Meter Location
Docket No. L-2009-2107155

Dear Secretary Chiavetta:

Enclosed for filing, please find an original and fifteen (15) copies of the Comments of the Energy Association of Pennsylvania ("EAP") in the above-referenced docket.

Sincerely,

A handwritten signature in black ink, appearing to read "Donna M. J. Clark", is written over a horizontal line.

Donna M. J. Clark
Vice President and General Counsel

CC: Robert F. Powelson, Chairman
John F. Coleman, Vice Chairman
Pamela A. Witmer, Commissioner
Wayne E. Gardner, Commissioner
James H. Cawley, Commissioner
Adam D. Young, Assistant Counsel, Law Bureau

2012 JUL 23 PM 2:37

RECEIVED
IRRC

RECEIVED
IRRC

2950

2012 JUL 23 PM 2: 37

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Rulemaking Re Amendment to
52 Pa. Code §59.18 Meter Location

:

Docket No. L-2009-2107159

RECEIVED

JUL 16 2012

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

COMMENTS OF THE ENERGY ASSOCIATION OF PENNSYLVANIA
TO THE PROPOSED RULEMAKING ORDER
ENTERED ON JULY 28, 2011

I. INTRODUCTION

On July 28, 2011, the Pennsylvania Public Utility Commission ("PUC" or "Commission") entered a Proposed Rulemaking Order ("Order") to commence a process to amend existing regulations at 52 Pa. Code § 59.18 – Location of Meters. The Order sets forth a background and procedural history for the proposed amendments¹, a discussion based on a "Gas Safety Division Report"², and outlines a number of conclusions to be incorporated in the proposed revisions to the existing regulation which are attached to the Order as Annex A.

¹ The proposed revisions result from an investigation of gas meter placement and location initiated by a Motion of Commissioner Kim Pizzigrilli in August 2008 at Docket No. M-2008-2058386. Pursuant to that Motion, the Commission directed the Bureau of Transportation, Gas Safety Division, to investigate the issue of gas meter placement and relocation in the context of two individual service disputes between gas utilities and particular customers where the utility relocated a meter following discovery and repair of a leaking service line and the customer objected to being charged for the relocation of the meter. The Motion of Commissioner Pizzigrilli noted that there existed ambiguity in the area of meter location and concluded that it was "an appropriate time to assess meter relocation policy" in the context of anticipated significant infrastructure replacement initiatives by Pennsylvania gas utilities.

² The Order states that the investigation initiated in 2008 resulted in a Gas Safety Division Report which forms the basis for the proposed revisions to 52 Pa. Code § 59.18. EAP suggests that it would be helpful to all stakeholders in providing input to the current rulemaking process to have access to the Report. While ten of the largest gas utilities under the Commission's jurisdiction provided data as requested by the Gas Safety Division, neither a draft nor a final version of the Report has been released to the public.

Generally, based on conclusions reached in the Gas Safety Division Report, the Commission proposed revisions to:

- (1) Align the existing state regulations with the current Title 49 Code of Federal Regulations as previously ratified and adopted by the Commission. See 52 Pa. Code § 59.33³;
- (2) Allow the natural gas utilities to have sole determination for meter set (meter and regulator) location which determination should be based upon the interest of public safety;
- (3) Require the natural gas distribution companies (“gas utilities” or “NGDCs”) to relocate current inside regulators, which are connected to steel service lines, to the outside within ten years, with certain exceptions related to “historic districts” and “high risk vandalism districts”; and
- (4) Create two alternatives to the requirement for relocating inside meter sets to the outside – (a) installing Excess Flow Valves on steel service lines; or, (b) relocating inside regulators (as opposed to the entire meter set) to the outside if the meter set is connected to a steel service line. See Order at pp 8-9.

Importantly, the Commission concluded that “[t]he proposed amended language imposes no additional regulatory requirements upon NGDCs that these utilities are not already subject to under federal regulations.” Id at p.9.

³ Pursuant to 52 Pa. Code § 59.33. “[t]he minimum safety standards for all gas transmission and distribution facilities in this Commonwealth shall be those issued under the pipeline safety laws as found in 49 U.S.C.A §§ 60101-60503 and as implemented at 49 CFR Parts 191-193 and 199, including as subsequent amendments thereto future Federal amendments to 49 CFR Parts 191-193 and 199, as amended or modified by the Federal government”

The Energy Association of Pennsylvania (“Association” or “EAP”) files these comments on behalf of its NGDC members⁴ and requests that the Commission reconsider the entirety of the revisions proposed for various reasons, including those summarized below:

- Contrary to the stated intent of the Commission, the proposed revisions as set forth in Annex A do impose additional regulatory requirements beyond those established in federal regulations previously adopted by the Commission at 52 Pa. Code §59.33. The proposed revisions first modify and then codify guide materials developed collaboratively by the national Gas Piping Technology Committee (“GPTC”) to assist operators in complying with Title 49 of the CFR, Parts 191 and 192. The modifications eliminate the discretion and flexibility afforded operators in the GPTC Guide for Gas Transmission and Distribution Systems without articulating a basis for the creation of new mandates.
- With respect to the stated intent of creating exceptions to the mandate that NGDCs relocate current inside regulators connected to steel service lines to the outside, the proposed revisions do not meaningfully and adequately define “high risk vandalism districts” and unnecessarily cede Commission authority to the restrictions of local zoning entities which seek to preserve “Federally approved Historic Districts”.
- The proposed revision to require all inside regulators, connected to steel service lines, to be relocated to the outside by year end 2020 is contrary to the stated intent of the Commission to provide ten (10) years to accomplish relocation and, moreover, is an arbitrary deadline which does not consider that some customer service lines are owned by the customers which will increase the cost of compliance or how the replacement of

⁴ Columbia Gas of PA; Equitable Gas Company; National Fuel Gas Distribution Corporation; PECO Energy Company; Peoples Natural Gas Company; Peoples TWP LLC, Philadelphia Gas Works; Pike County Light & Power Company; UGI Central Penn Gas, Inc.; UGI Penn Natural Gas, Inc.; UGI Utilities, Inc.; and, Valley Energy Company.

service lines may be impacted by current infrastructure replacement efforts or those anticipated main replacement plans and projects under Act 11.

- Contrary to the stated intent of the Commission, the proposed revisions do not provide that the installation of an Excess Flow Valve on a steel service line is an alternative to relocating inside regulators outside.
- With respect to the proposed revisions regarding responsibility for costs attributable to regulator relocation, EAP agrees that NGDCs should pay the costs of relocating a meter or regulator for safety reasons, but believes that NGDCs should have the option of charging a customer for meter or regulator relocation where the customer's actions created an unsafe condition necessitating an accelerated relocation. EAP, however, asks the Commission to reconsider the suggested revision at 52 Pa. Code §59.18(a)(10) which shifts financial responsibility for "extending customer-owned fuel facilities" to a new meter/regulator location from the customer to the utility.

II. COMMENTS

Based on an investigation conducted over a three year period by the Gas Safety Division, the Commission decided, *inter alia*, that regulators connected to steel service lines and located inside a structure should be relocated outside because of safety concerns and proposed a uniform time period for achieving relocation across the state. The Commission articulated two alternatives to relocating the regulator outside where the service line is steel and identified two exceptions to be considered for "Federally approved Historic Districts" and "high risk vandalism districts". Moreover, the Commission stated that it would revise the existing regulation without increasing the regulatory requirements established under federal regulation which has been

adopted in Pennsylvania. Additionally, based on the observation by the Gas Safety Division that the existing regulation at 52 Pa. Code § 59.18 is silent with respect to the responsibility for costs associated with relocation, the revisions at Annex A assign costs to either the utility or customer based on specific detailed circumstances.

EAP believes that the revisions as drafted are overly prescriptive and, in fact, do not match the intent of the Commission to amend the existing regulation without creating additional regulatory burdens. As such, the Association urges the Commission to reconsider the proposed revisions, tailoring amendments to meet its stated purpose to align meter location regulations with previously adopted federal rules without creating additional regulatory requirements and to provide a clear methodology of allocating cost between the utility and the customer when regulator relocation is warranted.

A. Aligning Revisions to Match Federal Standards

The Order states that the existing regulations already adopt the minimum gas safety standards set forth in federal regulations at 49 CFR Parts 191-193 and 199,⁵ and further provides that certain Part 192 regulations already establish standards for the placement of metering and regulator facilities.⁶ The Order then states that “[t]he proposed amended language imposes no additional regulatory requirements upon NGDCs that these utilities are not already subject to under the federal regulations.”⁷ However, in comparing the proposed language to applicable provisions of 49 CFR Part 192, it is clear that the Commission is establishing rules that have no counterpart in the federal regulations and creating additional regulatory requirements contrary to

⁵ 52 Pa. Code §59.33(b).

⁶ Proposed Rulemaking Order, pp. 3-4.

⁷ *Id.* p. 9.

the Commission's articulated intent.⁸ Examples of proposed revisions that appear to have no federal counterpart, in whole or in part, include proposed 52 Pa. Code §59.18(a)(1)-(2) and (c)(4)-(6).⁹

Additionally, a comparison of Annex A to the GPTC Guide for Gas Transmission and Distribution Piping Systems (2009 Edition) ("GPTC Guide") reveals that the proposed language tracks the guide materials (not the Federal Regulations) with modifications which create mandates in direct contravention to the stated intent of the GPTC.¹⁰ In particular, the Preface to the GPTC Guide provides that "[t]he recommendations contained in the Guide are based on sound engineering principles developed by a committee balanced in accordance with accepted committee procedures and must be applied by the use of sound and competent judgment. The guide material is advisory in nature and contains guidance and information for consideration in complying with the [Federal] Regulations. As such, it is not intended for public authorities or others to adopt the Guide in mandatory language, in whole or in part, in laws, regulations, administrative orders, ordinances, or similar instruments as the sole means of compliance." See Attachment A, GPTC Guide at p. xiii.

If it is the intent of the PUC to adopt these guide materials as mandates despite the stated purpose of the GPTC Guide, the Commission should clearly state its decision to so adopt the GPTC Guide and articulate the basis for its decision to eliminate the flexibility accorded by the guide materials. In the alternative, the Commission might consider adopting the GPTC Guide without modification in the form of a policy statement which would allow for utility discretion as

⁸ 49 CFR §192.353-192.357.

⁹ 52 Pa. Code §59.33(c) currently has no subsection (5).

¹⁰ See select pages from the GPTC Guide for Gas Transmission and Distribution Piping Systems (2009 Edition) attached hereto and incorporated herein by reference as Attachment A.

envisioned by the GPTC and provide the necessary flexibility to adhere to future amendments to the Federal Regulations pursuant to 52 Pa. Code § 52.33.

At a minimum, if the Commission nonetheless concludes that it wishes to proceed with the adoption of the language set forth in Annex A at this time, EAP believes that four sections should be modified to provide for exceptions in special circumstances and to eliminate the possibility of unintended results. The first such section is 52 Pa. Code §59.18(a)(1) where the second sentence currently states: “Service lines must terminate in the building in which the service line enters.” If the Commission decides to proceed with the adoption of its proposed regulations, EAP believes this sentence should be modified to read: “Where feasible and practicable to do so, service lines should terminate in the building in which the service line enters.”

In most circumstances it should be possible to have service lines terminate in the building in which they enter, but in some very limited instances, such as industrial compounds where there are many auxiliary buildings or in cases where gas is utilized in a structure behind a row house or other property blocking access to a street, it may not be feasible or practicable to have a service line terminate in the building in which it enters. In such cases, NGDCs should be able to exercise discretion to allow for service lines that terminate at a location outside of the building they initially enter. Such a modified standard would not conflict with current Federal Regulations since they do not include a requirement mandating that service lines should terminate in the building in which it initially enters. *See Attachment A at Subpart H for current Federal Regulations prescribing minimum requirements for installing customer meters, service regulators, service lines, service line valves and service line connections to mains.*

The second such section is 52 Pa. Code §59(a)(8) which currently states: “The meter location must accommodate for the installation of the service line in a straight line perpendicular to the main.” If the Commission decides to proceed with the adoption of its proposed regulations, EAP believes this sentence should be modified to read: “Where feasible and practicable to do so, the meter installation should accommodate the installation of a service line running in a straight perpendicular line to the main.”

Once again, while most service lines are installed in a straight perpendicular line from the main, there can be instances where it is necessary to deviate from a straight line to accommodate necessary changes in meter locations or to avoid obstacles. Again, this revised standard would not conflict with current Federal Regulations since such regulations currently have no requirement mandating the installation of perpendicular service lines. *Id.*¹¹

The third section is 52 Pa. Code §59(a)(9)(i) which currently states:

- (9) Meters and service regulators may not be installed in the following locations:
 - (1) Directly beneath or in front of windows or other building openings which may be used as emergency fire exits

If the Commission decides to proceed with the adoption of its proposed revisions, EAP believes this sentence should be modified to read:

- (9) Unless measures are taken to limit the amount of gas that might enter a building, meters and service regulators should not be installed in the following locations:
 - (1) Directly beneath or in front of windows or other building openings which may be used as fire exits.

¹¹ See Attachment A and compare 49 CFR § 192.353 with GPTC Guide. The federal regulation which has been adopted in Pennsylvania is silent whereas the guide materials provide at 1(h) that “[t]he meter location should normally permit the installation of the service line in a straight line perpendicular to the main.” (Emphasis added.) The guide materials provide for flexibility.

In many instances, such as buildings in crowded urban environments, it may not be possible to find a meter placement location that is not near a window or other building opening that could be used as a fire exit, and in such instances it is possible to use so-called “slam shut” regulators that, like an excess flow valve, can terminate the flow of gas through the service line, thereby removing the possibility of gas flowing into a building. Again, current Federal Regulations do not prohibit locating meter sets directly beneath or in front of openings that serve as emergency fire exits. *Id.*¹²

The fourth section is 52 Pa. Code §59(c)(6) which currently states: “Meters and service regulators may not be located in engine, boiler, heater, or electric equipment rooms, living quarters, closets, restrooms, bathrooms, or similar confined locations.”

The provisions of 49 CFR §192.353(c) currently provide: “Each meter installed within a building must be located in a ventilated place not less than 3 feet (914 millimeters) from any source of ignition or any source of heat which might damage the meter.” EAP believes that this standard appropriately addresses meter placement concerns by establishing ventilation and distance from heating source standards rather than trying to describe prohibited locations by room type, since certain room types may have characteristics which provide for sufficient ventilation and distance from heating sources in certain instances, while others may not. For example, a meter located in a basement where a heater is located sufficiently far from the meter to not present any safety danger.

In this instance EAP would propose that the Commission simply delete the subsection, or if it is trying to establish standards exceeding those established under the Federal Regulations,

¹² See Attachment A and compare 49 CFR § 192.353 with the GPTC Guide. The federal regulation which has been adopted in Pennsylvania contains no prohibition whereas the guide material recommends at 1(i) that installation not occur under or in front of openings which may be used as emergency fire exits.

that it do so by establishing revised distance standards rather than prohibiting meter and regulator installations by room type.¹³

Again, while EAP believes that the solution which meets the Commission's stated intent in the Order to impose "no additional regulatory requirements upon NGDCs" which are not imposed under federal regulations is the elimination of the revised language in Annex A to the extent it modifies and then seeks to codify as mandates the guidance material developed by the GPTC, EAP urges the Commission, at a minimum, to carefully reconsider the revised language and reinstate the discretion and flexibility accorded by the GPTC Guide.

B. Meter Relocation Exception for "Federally approved Historic Districts"

EAP believes that certain of the revisions proposed at 52 Pa. Code §59.18(c)(1) would allow local standards to pre-empt PUC authority to establish uniform rules with respect to location of jurisdictional utility facilities contrary to established law. The Order provides at p. 7, in pertinent part that:

Several utilities provide service in historic districts where municipal laws require the meter set to be located inside structures. In many instances, the utilities are able to locate the regulator outside; however, there are instances when the utility must locate the entire meter set inside due to zoning ordinances.

Section 59.18(c)(1) of the proposed revisions, in turn, states that:

- (1) Inside meter locations shall be considered only when:
 - (i) An acceptable outside location is not available due to restrictions in Federally approved Historic Districts

¹³ See Attachment A and compare 49 CFR § 192.353(c) with the GPTC Guide at 3(b) which recommends that "[w]here practical, meters and service regulators should not be located in confined engine, boiler, heater, or electrical equipment rooms, nor should they be located in living quarters, closets, restrooms, bathrooms or similar locations." (Emphasis added.)

The above-quoted language of the Order and proposed revisions arguably assumes, contrary to established Pennsylvania law, that utilities are subject to local zoning restrictions designed to preserve historic districts when, in fact, that is not the case. Pennsylvania case law clearly recognizes that utilities are exempt from local zoning and other local restrictions, with certain limited exceptions. Moreover, one of the most crucial functions of the Commission is to establish uniform rules and standards for jurisdictional utilities so that they are not subject to balkanized, and potentially conflicting, local political subdivision standards.

Initially, it may be informative to understand how historical districts and places are established under federal and state law. Under the federal National Historic Preservation Act of 1966 (the "NHPA Act"), 16 U.S.C. §§470a-470mm, the Secretary of the Interior is authorized to designate "National Historic Landmarks" and to maintain a "National Register of Historic Places."¹⁴ Such a designation, however, places no affirmative obligations on property owners or utilities. Instead, the designation (a) qualifies the owners of listed income-producing properties to qualify for certain tax credits if they restore their properties in a manner that meets preservation standards, (b) may qualify non-profits and local governments for certain grant monies to preserve listed properties, and (c) results in state and federal agencies considering the presence of the historic building or location in planning projects receiving funding from certain federal or state sources. Thus, there are no federal historic district requirements that would supersede the Commission's authority to establish or approve standards for the location of utility facilities in "Federally approved Historic Districts".

At the state level, historic districts, which may or may not also be listed on the National Register of Historic Places, may be established under the terms of The Historic District Act, 53

¹⁴ In the Commonwealth, the Pennsylvania Historical and Museum Commission manages the process for including Pennsylvania properties and sites on the National Register of Historic Places.

P.S. §8001-8006 (the “Historic District Act”).¹⁵ Such districts are established by the local political subdivision creating and defining a historic district by ordinance, which only goes into effect after the Pennsylvania Historic and Museum Commission is notified of the ordinance and “has certified, by resolution, to the historical significance of the district or districts within the limits defined in the ordinance....” 53 P.S. §8002. Once such certification is received and the ordinance goes into effect, the local political subdivision may appoint a Board of Historic Architectural Review which “shall give counsel to the governing body of the county, city, borough, town or township, regarding the advisability of issuing any certificate which the governing body may issue pursuant to the act.” 53 P.S. §8003. The governing body is also granted:

The power and duty to certify to the appropriateness of the erection, reconstruction, alteration, restoration, demolition or razing of any building, in whole or in part, within the historic district or districts within the political subdivision. Any agency charged by law or local ordinance with the issuance of permits for the erection, demolition or alteration of building within the historic district shall issue no permit for any such building changes until a certificate of appropriateness has been received from the governing body. 53 P.S. §8004(a).

In addition,

The agency charged by law or by local ordinance with the issuance of permits for the erection, demolition or alteration of buildings within the historic district shall have the power to institute any proceedings, at law or in equity, necessary for the enforcement of this act or of any ordinance adopted pursuant thereto, in the same manner as in its enforcement of other building, zoning or planning legislation or regulations. 53 P.S. §8005.¹⁶

¹⁵ The provisions of The Historic District Act do not apply to the creation of historic districts in Philadelphia or Pittsburgh.

¹⁶ The Pennsylvania Historic and Museum Commission recognizes that certain political subdivisions identify and attempt to enforce rules to support “historic districts or areas” that have not been recognized by the Pennsylvania Historic and Museum Commission under the terms of the Historic District Act.

In Pennsylvania, jurisdictional utilities do not have to seek zoning approval or seek the issuance of building permits for the installation of their facilities because of the well recognized principle that the PUC has been granted exclusive jurisdiction to establish standards for the installation and maintenance of utility facilities. Consequently, EAP does not believe that its members are subject to historic district regulations in the placement of facilities but rather must adhere to PUC regulations and act in accordance with the rules specified in Commission-approved tariffs.

This principle of preemption from local rules was recognized in *South Coventry Township v. Philadelphia Electric Company*, 94 Pa. Commonwealth Court 289, 504 A.2d 368 (1986), where a township attempted to require the Philadelphia Electric Company to obtain zoning approval for the erection of a siren tower. The Commonwealth Court, citing the Pennsylvania Supreme Court Case of *Duquesne Light Co. v. Upper St. Clair Township*, 377 Pa. 323, 105 A.2d 287 (1954), stated in part:

We therefore conclude that the policy of the Commonwealth in entrusting to the Commission the regulation and supervision of public utilities has excluded townships from the same field, and that no power in townships to enter that area can be read into the First Class Township Law by implication. 377 Pa. at 334-35, 105 A.2d at 292.

This reasoning must likewise control in this case. Just as the "building" exemption has survived in the MPC from its earlier inclusion in the First Class Township Law, so has the adjuration that the MPC "shall not repeal or modify any of the provisions of the 'Public Utility Law'...." 53 P.S. 11202.

Similarly in *PECO Energy Company v. Township of Upper Dublin*, 999 A.2d 996 (2007), a township, through a Shade Tree Commission authorized under the First Class Township Code (FCTC), adopted an ordinance requiring PECO to obtain permits before it trimmed trees around its public utility facilities. Both the Court of Common Pleas and the Commonwealth Court

concluded that the Township was preempted from regulating PECO tree trimming activities noting:

[T]he General Assembly entrusted the regulation of public utilities to a commission of statewide jurisdiction. Local authorities not only are ill-equipped to comprehend the needs of the public beyond their jurisdiction, but, and equally important, those authorities, if they had the power to regulate, necessarily would exercise that power with an eye toward the local situation and not with the best interests of the public at large as the point of reference. We believe that the General Assembly never intended to bestow a power upon first class townships which is in headlong conflict with the power already given the [PUC].

We discern no error in the trial court's holding that the rationale in *Duquesne Light* is applicable here. We also agree that nothing in the FCTC's shade tree provisions repeals or modifies the Public Utility Code or grants Appellants the power to regulate a public utility's services, including its vegetation management practices. 53 P.S. § 58502.

The court also rejected the township's argument that its ability to regulate street openings through the issuance of permits permitted it to place conditions on PECO's activities stating:

Appellants next argue that Section 18 of the 1911 Act, a general municipal statute governing use of streets by public utilities, authorizes the Township to require PECO to obtain a permit to occupy a public right-of-way. Section 18, Appellants assert, is a clear statutory exception to the general regulatory powers of the PUC. They contend the manner in which PECO occupies Township streets includes the manner in which PECO's facilities co-occupy Township streets with shade trees. Thus, Appellants maintain, Section 18 of the 1911 Act provides express authority for municipal regulatory jurisdiction over Township streets.

...

PECO responds that nothing in Section 18 of the 1911 Act expressly authorizes first class townships to regulate public utilities' activities. PECO contends this statute pertains to the initial placement of utility facilities requiring excavation and restoration of public streets. This relates to preserving the integrity of the roadway; nothing in Section 18 expressly mentions regulation of public utilities' vegetation management practices. We agree.

EAP requests that, in the context of revising meter location regulations, the Commission should recognize and reaffirm its exclusive jurisdiction to establish meter placement standards (including the adoption of federal standards) for natural gas distribution companies in the Commonwealth. Moreover, EAP believes that existing Commission-approved tariff provisions of its utility members which govern meter placement provide sufficient flexibility to utilities to balance gas safety, cost and local architectural integrity concerns in making engineering decisions in placing metering facilities. To the extent any affected party would believe that a utility acted unreasonably in making a meter placement decision, it can seek relief through the Commission's informal or formal complaint processes. EAP also notes that while individual utility members may have encountered instances where there has been friction with local government units over the issue of who has jurisdiction over the location of metering facilities in historic districts, once this issue has been examined and resolved, utilities have worked cooperatively with local authorities to resolve meter placement issues in a fair manner through the application of existing meter placement tariff rules.

Should the Commission re-affirm its exclusive jurisdiction, but conclude there is a need to establish special meter placement rules for historic districts in its proposed regulations, EAP believes the regulations should permit the location of meters inside of historic buildings located in historic districts certified by the Pennsylvania Historic and Museum Commission under the Historic District Act. Associated risers and regulators, where feasible, should be located outside of the building. This should strike an appropriate balance between safety and architectural integrity concerns by helping to ensure, in the event a steel service line is hit or disrupted, that gas flows would likely occur outside of a building, while helping preserve the architectural

integrity of historic areas since outside risers and regulators are relatively small and unobtrusive, and can be painted to reduce their visual impact.

Specifically, should the Commission desire to address the placement of gas meters in historic districts in its regulations, the Commission should modify the wording of its proposed regulations as follows:

(c) Inside meter or service regulator locations.

(1) Inside meter locations shall be considered only when:

- (i) the meter is to be installed in a building located in an historic building or district certified by the Pennsylvania Historic and Museum Commission;
- (ii) the meter to be installed is in an area reasonably believed by the natural gas distribution company to present a high risk of vandalism;^[17]
- (iii) protection from ambient temperatures is necessary to avoid meter freeze-ups;
- (iv) there is insufficient space or otherwise safe location reasonably believed by the natural gas distribution company outside to accommodate the meter; or
- (v) such a location is deemed appropriate by the natural gas distribution company when installing a meter for a commercial or industrial customer.

(2) Regulators shall be located outside when a meter is located inside.

C. Relocating Inside Regulators Connected to Steel Service Lines by Year End 2020

Proposed 52 Pa. Code §59.18(c)(4) states: “All regulators, connected to steel service lines, shall be relocated to the outside by year end 2020.” Initially, EAP notes that there is no similar requirement under current Federal Regulation, see Attachment A, and clearly this new mandate imposes regulatory requirements that far exceed current federal standards. In support of this revision, the Order states, in pertinent part, that:

¹⁷ Two exceptions to relocating regulators connected to steel service lines were identified in the Order, “Federally approved Historic Districts” and “high risk vandalism districts”. Both underscore the need to interject discretion and flexibility into the mandate to relocate regulators. With respect to “high risk vandalism districts”, the language suggested by the industry provides discretion to the utility to make the determination based on experience and safety concerns.

The Commission is also concerned about the number of reportable incidents resulting, at least partially, from locating meters and regulators inside structures....While it appears from the data that the inside meter and regulators were not always the primary factor for accidents, locating meters and regulators inside certainly contributed to these incidents through a release of natural gas....[S]everal of the utilities reported that they could not comply with the leak survey requirements when the meter and regulator are inside a building, which prevents access. This is troubling because the state and federal regulations require leak surveys up to the meter. By not having access to the meter sets, the NGDCs cannot comply with the state and federal regulations and cannot detect inside leaks.

The state has experienced several gas explosions related to steel service lines being struck and pulled up from their stable position and subsequently pulling the service line from the inside meter set. Plastic service lines with inside meter sets do not pull away since the excavation equipment usually severs the line immediately after being struck. The combination of steel service line and inside meter set is a high risk factor for natural gas incidents.

Order at pp. 5-6.

EAP fully supports the important goal of promoting gas safety. Its members own, operate, and maintain tens of thousands of miles of natural gas pipeline in the Commonwealth. EAP, along with its NGDC members, works with the Commission to promote the safe operation of these pipeline facilities that not only meet, but exceed, the applicable federal pipeline safety laws incorporated by reference into Pennsylvania regulations at 52 Pa. Code § 59.33. In developing and applying these gas safety requirements there is, of necessity, a balancing of the paramount goal of safe operation with the need to operate natural gas facilities in a cost effective and prudent manner so as not to unduly burden gas customers with excessive and unnecessary costs. Thus, applicable federal standards recognize and apply the concept of risk assessment and quantification so that gas safety efforts are directed to the areas of greatest need, which may change over time as risks change. NGDCs employ engineers and other professionals, as well as software tools, to assess risks and maximize gas safety efforts. The many efforts employed by NGDCs to assess and respond to gas safety risks are reflected in written Distribution Integrity

Management Plans (“DIMP”) plans prepared in compliance with 49 CFR § 192 Subpart P. NGDC DIMP plans are available to the Commission and are the subject of audit by the Gas Safety Division of the Bureau of Investigation and Enforcement.

The Order provides that there were 65 reportable incidents involving inside meters over forty years, or a reportable incident rate averaging less than two incidents per year. This reportable incident rate was obtained from information provided by the NGDCs in the course of the investigation conducted by the Gas Safety Division and in response to a data request that asked for “a schedule listing reportable incidents that your Company was involved with that occurred from 1970-present that involved inside meter sets.” The recap of the data provided in the Order does not indicate whether or not the incident would have been avoided if a meter or regulator had not been inside the building. In fact, the Order notes that “it appears from the data that the inside meter and regulators were not always the primary factor for accidents” but then concludes that the location of meters and regulators inside “certainly contributed to these incidents through a release of natural gas.” Order at p. 5.

There appears little or no empirical evidence in the data set forth in the Order that would establish that inside regulators connected to steel service lines resulted in significant gas flows in any of the reportable incidents referenced. Thus, there is little or no evidence upon which to assess the potential benefit of establishing a separate mandate to relocate all inside regulators connected to steel service lines over an eight year period, assuming the revisions were effective immediately. This is particularly true where since the initiation of this investigation on meter location, the General Assembly has passed Act 11 which requires the filing of a long-term infrastructure plan in connection with seeking a DSIC and the Commission has issued a tentative order addressing, *inter alia*, pipeline replacement programs. See, PUC Docket Nos. M-2011-

2271982 and M-2012-2293611. Additionally, the proposed mandate to relocate inside regulators connected to steel service lines would involve considerable costs and could potentially result in a misallocation of resources away from areas of potential gas safety where the risk may be greater.

Given the current lack of evidence of a significant threat attributable to inside regulators and the high costs of an accelerated relocation schedule, EAP suggests that regulations which mandate an arbitrary relocation deadline are neither justified at this time nor reasonable in light of current efforts to develop and implement pipeline replacement programs. EAP request that the language at 52 Pa. Code § 59.18(c)(4) be eliminated from any final revision. If the Commission, however, proceeds to mandate the relocation of regulators connected to steel service lines, EAP suggests that the Commission allow utilities to retain flexibility to align relocation efforts with the broader projects contemplated in pipeline replacement programs and/or long term infrastructure improvement plans required under Act 11. Moreover any establishment of a definitive deadline for relocation should, at a minimum, take into consideration and place an emphasis on the prioritization of risks identified in NGDC DIMP plans.

Finally, should the Commission decide to proceed at this time with a prescriptive regulator relocation program, it should also clarify whether the installation of excess flow valves or slam-shut regulators are viable options in lieu of regulator relocations. The Order states at page 7 that “[t]here are several alternatives, . . . , to relocating and replacement of inside meter sets and steel service lines. One alternative is to retrofit existing service lines with Excess Flow Valves. Excess Flow Valves (EFV) are currently mandated for all new and replaced service lines by federal law. *See* 49 U.S.C. 60110, 49 CFR § 192.381.” However, language in Annex A at 52 Pa. Code §59(c)(4) requires the relocation of all regulators connected to steel service lines

whether or not an EFV or slam-shut regulator can be installed. EAP requests that the alternative to retrofit the existing service line with an Excess Flow Valve be included in any final revisions as contemplated in the text of the Order. *Id.*

D. Assigning Responsibility for Service Line Relocation Costs

Proposed revisions at 52 Pa. Code §59(a)(10) provide that:

When the Commission or a utility determines that a meter or regulator must be moved for safety reasons, all costs associated with the relocation of such meter or regulator shall be borne by the utility. When a utility moves a meter in addition to the regulator, pursuant to this section, the costs of extending customer-owned fuel facilities to the new meter location shall be borne by the utility.

Initially, EAP agrees that the utility should bear the responsibility for paying for meter or regulator relocations where the work is initiated to address safety concerns. EAP notes, however, that the second sentence of the proposed revision establishes a blanket rule not required under existing Federal Regulations and marks a significant change to current practices in western Pennsylvania where, in many instances, service lines from the curb to the meter, as well as the fuel line downstream from the meter inside the building, are owned by the customer. In western Pennsylvania many customers currently bear the financial responsibility to repair or replace a service line and/or fuel line if needed. The proposed revision shifts that financial responsibility to the utility, raising issues of cost recovery. EAP requests that the Commission consider the cost to ratepayers of this change in financial responsibility regarding extension of “customer-owned fuel facilities” to a relocated meter/regulator at a time when utilities are being encouraged to devote capital resources to pipeline replacement efforts. Again, EAP maintains that a flexible rule allowing for discretion may better serve the needs of all NGDCs and their customers rather than a mandate as proposed in the revision.

Additionally, EAP maintains that there should be an exception to this rule where the relocation is necessitated by actions the customer has taken which create a safety issue. An example of such a situation might be where a customer installs walls or other barriers in his or her house which results in meters or regulators no longer being adequately ventilated or reasonably accessible. In such instances, current tariffs permit the assessment of costs to the customer, and EAP believes these rules have worked well in both deterring unsafe behavior and in shielding other customers from costs associated with such actions.

Specifically, EAP suggests believes that the provisions of this subsection be modified to address its concerns as follows:

Unless caused by a customer's violation of applicable gas safety or tariff rules, a natural gas distribution company shall pay the costs of relocating meters or regulators where the relocation is performed to meet natural gas distribution company or Commission safety requirements.

III. CONCLUSION

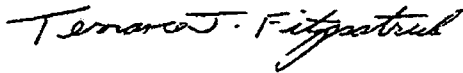
EAP and its NGDC members stand ready to work with the Commission to explore ways to meaningfully improve gas safety, including relocation of certain regulators, in a cost-effective manner and believe that the public interest can best be achieved by a careful weighing of the risks and benefits attributable to this new regulatory program so that resources can be properly allocated and aligned with simultaneous efforts to replace pipeline and aging infrastructure generally.

EAP maintains that the adoption and enforcement of federal standards in Pennsylvania at 52 Pa. Code § 59.33 relating to meter set location and relocation meet many of the concerns addressed in the meter location investigation initiated in 2008. Further, EAP suggests that many of the proposed revisions to 52 Pa. Code § 59.18 are too prescriptive and clearly create additional

regulatory requirements contrary to the expressed intent of the revisions as stated on page 9 of the Order.

EAP questions the necessity of first modifying the GPTC Guide to create mandates and then including it in revisions to regulations when these guide materials at present provide a valuable resource to assist NGDCs in Pennsylvania and across the nation to implement federal standards in a manner which provides discretion and accounts for inevitable changes in safety standards. Alternatively, EAP believes that if it is the intent of the Commission to create a new regulatory mandate which exceeds federal requirements, it should be stated clearly, based on empirical data that has been released to the public and subjected to a thorough cost/benefit analysis. To the extent the Commission decides that it needs to proceed with meter relocation regulations at this time, it should modify its proposed regulations as discussed above, and should defer the establishment of an arbitrary deadline for requiring regulator relocations until more information can be gathered to evaluate the need for such an accelerated schedule and until such time as programs to relocate inside regulators can be aligned with current industry efforts to replace aging infrastructure.

Respectfully submitted,



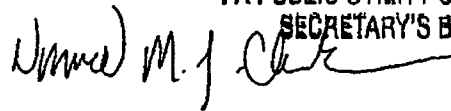
Terrance J. Fitzpatrick
President & CEO
tfitzpatrick@energypa.org

Energy Association of Pennsylvania
800 North Third Street, Suite 205
Harrisburg, PA 17102

RECEIVED

JUL 16 2012

PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU



Donna M. J. Clark
Vice President & General Counsel
dclark@energypa.org

ATTACHMENT A

**COMMENTS OF THE
ENERGY ASSOCIATION OF PENNSYLVANIA
TO THE PROPOSED RULEMAKING ORDER
AT
DOCKET NO. L-2009-2107155**

RECEIVED

JUL 16 2012

**PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU**

PREFACE

The guide material presented in the Gas Piping Technology Committee's (GPTC) Guide for Gas Transmission and Distribution Piping Systems (Guide) contains information and some "how to" methods to assist the operator in complying with the Code of Federal Regulations (CFR), Title 49 as follows:

- Part 191 -- Transportation of Natural and Other Gas by Pipeline: Annual Reports, Incident Reports, and Safety-Related Condition Reports
- Part 192 -- Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards

Parts 191 and 192 are typically referred to hereinafter as the "Regulations."

The recommendations contained in the Guide are based on sound engineering principles developed by a committee balanced in accordance with accepted committee procedures and must be applied by the use of sound and competent judgment. The guide material is advisory in nature and contains guidance and information for consideration in complying with the Regulations. As such, it is not intended for public authorities or others to adopt the Guide in mandatory language, in whole or in part, in laws, regulations, administrative orders, ordinances, or similar instruments as the sole means of compliance.

The operator is cautioned that the guide material may not be adequate under all conditions encountered, and should not restrict the operator from using other methods of complying with the Regulations. Following the Guide does not ensure that an operator is automatically in compliance with the requirements of Parts 191 and 192. Operators of intrastate facilities are also cautioned that some states have additional or more stringent requirements than Parts 191 and 192.

HISTORY

The Natural Gas Pipeline Safety Act became effective on August 12, 1968. It required the Secretary of Transportation to adopt interim rules within three months which were to consist of the existing state standards, where such standards existed, or the standards common to a majority of states where no state standard existed, and to establish minimum federal standards within twenty-four months. The safety standard for gas pipelines and mains, in the majority of the states, was the American National Standard Code for Pressure Piping, Gas Transmission and Distribution Piping Systems, B31.8. Thus, the interim minimum safety standards were essentially B31.8 Code requirements.

Between August 12, 1968 and August 12, 1970, the Office of Pipeline Safety (OPS) of the United States Department of Transportation (DOT) developed safety standards which would be applicable to gas facilities, with the exception of rural gas gathering systems. As a result, Title 49 Part 192 of the Code of Federal Regulations (CFR) "Transportation of Natural and Other Gas by Pipelines: Minimum Federal Safety Standards" became effective November 12, 1970.

Since the sponsoring organization of the ANSI B31.8 Committee was The American Society of Mechanical Engineers (ASME), the ASME initiated discussions with the DOT/OPS, in an effort to establish the future role of the B31.8 Code Committee with respect to pipeline safety. As a result of those discussions, the ASME decided to form the ASME Gas Piping Standards Committee. The title of the Committee was changed to the Gas Piping Technology Committee (GPTC) on September 20, 1982.

The first edition of the "Guide for Gas Transmission and Distribution Piping Systems" was published on December 15, 1970. It was essentially a compilation of the Federal Safety Standards and the then current ANSI B31.8 Code material that was relevant to the Part 192 requirements. Subsequent editions and addenda to the "Guide" had "how to" Guide Material directly following each of the standards of 49 CFR Part 192, and numerous guide appendices. Part 191 was subsequently added to the 1995 edition of the Guide.

On October 18, 1989, the GPTC voted to transfer its affiliation from ASME to the American Gas Association (AGA). The transfer of copyright for the Guide from ASME to AGA was effective on April 10, 1990 and the AGA was designated the committee Secretariat. The first edition of the Guide published by AGA, as the new copyright holder/Secretariat, was in November 1990 and was designated the 1990-91 edition. The GPTC sought ANSI approval of their procedures and was approved as an Accredited Standards Committee GPTC Z380 on January 30, 1992. The 1990-91 edition of the Guide was approved as ANSI/GPTC Z380.1 on December 2, 1992.

FOREWORD

The primary purpose of the GPTC Guide for Gas Transmission and Distribution Piping Systems (Guide) is to provide assistance to the operator in complying with the intent of the Code of Federal Regulations (CFR) in the performance requirements contained in the Transportation of Natural and Other Gas by Pipelines, Title 49 Subchapter D-Pipeline Safety: Part 191- Annual Reports, Incident Reports, and Safety-Related Condition Reports; and Part 192- Minimum Federal Safety Standards (all being typically referred to hereinafter as the "Regulations").

The Guide includes the Minimum Federal Safety Standards together with the design recommendations, material reference, and recommended practices of the GPTC. The function of the GPTC's guide material is to provide "how to" supplementary recommendations related to the Minimum Federal Safety Standards. The Committee continuously works to pinpoint areas where more Guide type material could be utilized in support of the Minimum Federal Safety Standards and related Regulations.

The Guide includes the Federal Regulations plus the GPTC's guide material for both Parts 191 and 192. The Guide is published in loose-leaf format. As changes occur to the Regulations and related guide material, replacement or additional sheets will be mailed to Guide purchasers. The subscription service, which is included with the purchase of the Guide, includes changes to the Regulations as issued by DOT/OPS and changes made to the guide material by GPTC. A new edition, incorporating all changes that have been published, is usually issued every three years.

The historical reconstruction of the Regulations is available in AGA X69804, "Historical Collection of Natural Gas Pipeline Safety Regulations." It includes the original version of Parts 191 and 192 and all their amendments through Amdts. 191-15 and 192-93 (reference the document as updated November 1, 2003). The Federal Register preamble to the amendments is included as well. This collection of all earlier amendments has been established as a readily accessible reference to supplement the Guide or to aid research activity. However, considering the electronic availability of amendments, refer to the Federal Register web site for later amendments.

The format of the Guide includes the title of each numbered section of the Regulations and is followed by the effective date of the latest amendment activity or effective date of the original version if no amendment has been issued. The Regulation is followed by a list of amendment or control numbers for the respective section and the applicable guide material as developed by the Committee.

The GPTC has an established procedure for reviewing requests for interpretations and suggestions for additions and revisions to the Guide. Written requests should be sent to: Secretary, Gas Piping Technology Committee, American Gas Association, 400 N. Capitol Street, NW, Washington, D.C. 20001.

Requests for interpretations, proposed additions, and revisions to the Regulations should be directed to the Associate Administrator for Pipeline Safety, Office of Pipeline Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building, 2nd Floor, 1200 New Jersey Avenue, SE, Washington, D.C. 20590-0001.



U.S. Department
of Transportation
**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Ave., S.E.
Washington, DC 20590

NOV 24 2008

Ms. Marti Marek
Chairperson, Gas Piping Technology Committee
Southwest Gas Corporation
P.O. Box 98510
Las Vegas, NV 89193-8510

Dear Ms. Marek:

The U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) believes that the Guide for Gas Transmission and Distribution Piping Systems (Guide) is of significant assistance to gas piping system operators in their efforts to comply with the Federal pipeline safety standards at 49 CFR Part 191, *Annual Reports, Incident Reports, and Safety-Related Condition Reports*, and Part 192, *Transportation of Natural and Other Gas by Pipeline: Minimum Federal Safety Standards*. The Guide provides a clear and concise guidance for the gas pipeline safety regulations and is an excellent means of helping operators comply with the regulations.

Although the Preface indicates that the guide material is advisory in nature and does not restrict the operator from using other methods of compliance, the efforts of the Gas Piping Technology Committee (GPTC) serve to enhance the pipeline safety practices of those who use the Guide. Adherence to the Guide does not ensure that the operator is in compliance with the requirements of Part 191 and 192, but it provides an excellent source of compliance information.

The recommendations in the Guide are derived from the cumulative knowledge and experience of GPTC members in the fields of gas distribution, transmission and gathering, manufacture of pipe and components, and related activities. It is the weight of this broad knowledge and experience which gives the Guide its usefulness and credibility. PHMSA gives special thanks to the members of the GPTC, and their sponsor organizations. It is through this type of collaboration that we ensure both regulatory clarity and practicality.

We appreciate the cooperative effort needed to develop this guidance, and look forward to the issuance in the near future of GPTC guidance to support implementation of the upcoming Distribution Integrity Management regulation.

Sincerely,

Jeffrey D. Wiese
Associate Administrator for Pipeline Safety

AMERICAN GAS ASSOCIATION (AGA) NOTICE AND DISCLAIMER

The information in this publication was considered technically sound by the consensus of persons engaged in the development and approval of the document at the time it was developed. Consensus does not necessarily mean that there is unanimous agreement among every person participating in the development of this document.

This document was developed through a voluntary consensus standards development process. This process brings together volunteers and/or seeks out the views of persons who have an interest in the topic covered by this publication. While AGA administers the process and establishes rules to promote fairness in the development of consensus, it does not write the document and it does not independently test, evaluate, or verify the accuracy or completeness of any information or the soundness of any judgments contained in this publication.

The AGA disclaims liability for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential or compensatory, directly or indirectly resulting from this publication, use of, or reliance on this publication. The AGA also makes no guaranty or warranty as to the accuracy or completeness of any information published herein.

In issuing and making this document available, the AGA is not undertaking to render professional or other services for or on behalf of any person or entity. Nor is the AGA undertaking to perform any duty owed by any person or entity to someone else. Anyone using this document should rely on his or her own independent judgment or, as appropriate, seek the advice of a competent professional in determining the exercise of reasonable care in any given circumstances.

The AGA has no power, nor does it undertake, to police or enforce compliance with the contents of this document. Nor does the AGA list, certify, test, or inspect products, designs, or installations for compliance with this document. Any certification or other statement of compliance with the requirements of this document shall not be attributable to the AGA and is solely the responsibility of the certifier or maker of the statement.

The AGA does not take any position with respect to the validity of any patent rights asserted in connection with any items which are mentioned in or are the subject of this publication, and the AGA disclaims liability for the infringement of any patent resulting from the use of or reliance on it. Users of this publication are expressly advised that determination of the validity of any such patent rights, and the risk of infringement of such rights, is entirely their own responsibility.

Users of this publication should consult applicable federal, state, and local laws and regulations. The AGA does not, through this publication, provide legal advice for any purpose or intend to urge action that is not in compliance with applicable laws, and this publication may not be construed as doing so.

SUBPART H CUSTOMER METERS, SERVICE REGULATORS, AND SERVICE LINES

§192.351

Scope.

[Effective Date: 11/12/70]

This subpart prescribes minimum requirements for installing customer meters, service regulators, service lines, service line valves, and service line connections to mains.

GUIDE MATERIAL

No guide material necessary.

§192.353

Customer meters and regulators: Location.

[Effective Date: 10/15/03]

(a) Each meter and service regulator, whether inside or outside a building, must be installed in a readily accessible location and be protected from corrosion and other damage, including, if installed outside a building, vehicular damage that may be anticipated. However, the upstream regulator in a series may be buried.

(b) Each service regulator installed within a building must be located as near as practical to the point of service line entrance.

(c) Each meter installed within a building must be located in a ventilated place and not less than 3 feet (914 millimeters) from any source of ignition or any source of heat which might damage the meter.

(d) Where feasible, the upstream regulator in a series must be located outside the building, unless it is located in a separate metering or regulating building.

[Amdt. 192-85, 63 FR 37500, July 13, 1998; Amdt. 192-93, 68 FR 53895, Sept. 15, 2003]

GUIDE MATERIAL

1 GENERAL RECOMMENDATIONS

(a) Where practical, no building should have more than one service line.

(b) Meters should normally be installed at the service regulator. When more than one meter is set on a particular premises, they should typically be set at one location. If meters are installed at multiple locations on the premises, the operator should consider providing a tag or other means to indicate that there are multiple meter locations.

(c) An outside, aboveground meter location is desirable when weather conditions, availability of space, and other conditions permit.

- (d) When selecting a meter or service regulator location, consideration should be given to the potential damage by outside forces, such as those from vehicles, construction equipment, tools, materials that might be placed on the meter, and falling objects (e.g., packed snow or ice from a roof). Where such potential is evident, the meter or service regulator should be protected or an alternate location selected. See Guide Material Appendix G-192-13.
- (e) Meters and service regulators should not be installed in contact with the soil or other potentially corrosive materials. The potential for shorting out the insulating fitting should also be considered.
- (f) See guide material under §192.479 for the following relative to atmospheric corrosion.
 - (1) General considerations.
 - (2) Specific considerations regarding the meter and service regulator location and the regulator vent lines and tubing.
- (g) Section 192.353(a) requires that each meter and service regulator be installed in a readily accessible location. Each location should accommodate access for reading, inspection, repairs, testing, changing, and operation of the gas shut-off valve.
- (h) The meter location should normally permit the installation of the service line in a straight line perpendicular to the main.
- (i) Meters and service regulators should not be installed in the following locations.
 - (1) Under or in front of windows or other building openings which may be used as emergency fire exits or under interior or exterior stairways.
 - (2) A crawl space with limited clearance.
 - (3) Near building air intakes.

2 OUTSIDE METER OR SERVICE REGULATOR LOCATIONS

- (a) Outside meters or service regulators should be installed in the following locations.
 - (1) Preferably, above ground in a protected location, adjacent to the building served.
 - (2) In a properly designed buried vault or meter box.
 - (i) The vault or meter box should be located on the customer's property, either adjacent to the building served or near the gas main.
 - (ii) Vaults may be located in a public right-of-way. Consent of local jurisdictions may be required.
 - (iii) Proper design and location considerations should include ventilation, vehicular traffic (see §192.355(c)), potential for soil accumulation, surface water runoff, high water table, and proximity to building air intakes or openings.
 - (iv) Piping installed through vault walls should be properly coated to protect from corrosion.
 - (v) Note §192.189(b) that states:
A vault containing gas piping may not be connected by means of a drain connection to any other underground structure.
 - (vi) When outside a paved surface, consideration should be given to the potential for fill, topsoil, or sod being placed over the vault.
 - (vii) See guide material under §192.355 for considerations involving service regulator and relief vents in vaults.
- (b) At locations where vehicular damage is reasonably anticipated, some means of providing protection to the meter set assembly include the following.
 - (1) Distance from roadways or driveways.
 - (2) Installation of posts, parking bumpers, or barricades.
 - (3) Location behind existing protective structures.
 - (4) Installation in a buried vault or meter box.

3 INSIDE METER OR SERVICE REGULATOR LOCATIONS

- (a) Inside meter locations should be considered under the following conditions.
 - (1) An acceptable outside location is not available or practical.
 - (2) Protection from ambient temperatures is necessary to avoid meter freeze-ups. (This condition is most often encountered in low-pressure systems that pick up moisture from water-sealed gas holders or other sources.)
- (b) Where practical, meters and service regulators should not be located in confined engine, boiler, heater, or electrical equipment rooms, nor should they be located in living quarters, closets, restrooms, bathrooms, or similar locations.
- (c) Each service regulator installed within a building should be located as near as practical to the service line entry point. When selecting the service regulator location, venting requirements and the vent piping location and length should be considered. See §§192.355 and 192.357.
- (d) Where a meter or service regulator is located inside a building, §192.365 requires a readily accessible shut-off valve that, if feasible, is located outside the building.
- (e) Meters and service regulators in certain inside locations (e.g., parking garages) may require protection from vehicular damage. See 2(b) above.
- (f) For additional considerations regarding plastic service lines, see guide material under §192.375.

4 OTHER METER OR SERVICE REGULATOR LOCATIONS

An alternate consideration is a specially constructed cabinet recessed in the building wall, sealed from inside the building and vented to and accessible from outside the building.

§192.355

Customer meters and regulators: Protection from damage.

[Effective Date: 02/22/88]

- (a) *Protection from vacuum or back pressure.* If the customer's equipment might create either a vacuum or a back pressure, a device must be installed to protect the system.
- (b) *Service regulator vents and relief vents.* Service regulator vents and relief vents must terminate outdoors, and the outdoor terminal must --
 - (1) Be rain and insect resistant;
 - (2) Be located at a place where gas from the vent can escape freely into the atmosphere and away from any opening into the building; and
 - (3) Be protected from damage caused by submergence in areas where flooding may occur.
- (c) *Pits and vaults.* Each pit or vault that houses a customer meter or regulator at a place where vehicular traffic is anticipated must be able to support that traffic.

[Amdt. 192-58, 53 FR 1633, Jan. 21, 1988]

GUIDE MATERIAL

1 PROTECTIVE DEVICE

A suitable protective device should be installed downstream of the meter and regulator under the following conditions.

- (a) If the customer's utilization equipment, such as a gas compressor, could produce an excessive drop in gas pressure or a vacuum at the meter or regulator, a protective device such as the following should be used.
 - (1) Automatic shut-off valve with manual reset (for decreasing pressure).
 - (2) Restricting orifice.
 - (3) Regulating device set to close at a predetermined decrease in pressure.
- (b) If the customer's utilization equipment could cause compressed gas, compressed air, oxygen, etc., to flow back into the meter or regulator, a protective device such as the following should be used.
 - (1) Check valve.
 - (2) Automatic shut-off valve with manual reset (for increasing pressure).
 - (3) Regulating device set to close at a predetermined increase in pressure. The protective device should provide gastight shutoff if flow reversal occurs. Consideration should be given to the explosion hazard of air or oxygen mixed with natural gas or other hydrocarbons.
- (c) If a supplementary or an alternate gas supply (e.g., LPG) is interconnected for standby use and could flow back into the meter or regulator, a protective device such as those listed in 1 (a) and (b) above should be used. A 3-way valve that closes the normal gas supply before admitting the alternate supply could eliminate the need for a protective device.

2 CORROSION DAMAGE

If corrosion damage is likely to occur to meters and service regulators, see guide material under §192.479.

3 CONSIDERATIONS TO MINIMIZE DAMAGE BY VEHICLES AND OTHER OUTSIDE FORCES

See Guide Material Appendix G-192-13.

4 REGULATOR AND RELIEF VENTS AND VENT PIPING

4.1 *Outside vents and vent piping termination.*

All outside regulator vents and the outside terminations of all service regulator vent and relief lines should have vented caps, fittings, or other protection. The protection should be installed in accordance with the manufacturer's instructions, and should meet the requirements of §192.355(b). Where there is a potential for exposure to severe water or freezing conditions, special fittings or other arrangements should be used which will prevent blocking of the vent or relief line or interference with the operation of the regulator due to ice and water.

4.2 *Inside regulators.*

See §§192.353 and 192.357 for design and location considerations for inside regulators. See 4.3 below for vent piping design considerations.

4.3 *Vent piping design.*

- (a) Single regulator or relief vent.
The vent piping should be designed to minimize the back pressure if the regulator diaphragm ruptures or the relief valve activates.
- (b) Multiple regulator or relief vents.
Typically, a separate vent line is used for each regulator or relief valve as in (a), but a properly designed common vent line may be used.
 - (1) A common vent line should be designed and sized to:
 - (i) Minimize back pressure to the connected regulator having the largest venting flow rate, if venting occurs.

- (ii) Ensure that the outlet pressure of the other connected regulators does not increase to an unsafe value. If a regulator diaphragm ruptures or a relief valve activates and gas flows through the common vent line, the resultant back pressure will cause the outlet pressure of the other connected regulators to increase by the back-pressure amount. The amount of back pressure depends on the diameter and length of the common vent line and the venting flow rate.
 - (iii) Ensure that the total maximum vent line pressure for all regulators connected does not exceed the maximum back pressure specified for any one of the connected regulator vents.
 - (iv) Ensure that all the regulators connected to a common vent line have the same delivery pressure.
- (2) Regulators with low-pressure delivery (utilization pressure for low-pressure gas burning equipment) should have no high-pressure delivery regulator connected to the common vent line installation.
- (3) When considering the addition of regulators to an existing common vent line:
- (i) Do not connect a regulator with a different delivery pressure.
 - (ii) Do not connect a regulator with a larger venting flow rate than used in the initial design, unless a new calculation indicates that the common vent line is adequate at the larger venting flow rate.
- (4) The operator should consider using regulators with either:
- (i) A device set to close at a predetermined increase in pressure, or
 - (ii) Using an automatic shut-off valve with a manual reset.

5 PITS AND VAULTS

- (a) See guide material under §192.353 for design and location considerations.
- (b) When service regulators are installed in underground pits or vaults, regulator and relief vents should be installed in a manner to prevent blocking of the vents where there is a potential for soil or water accumulation.

§192.357

Customer meters and regulators: Installation.

[Effective Date: 11/12/70]

- (a) Each meter and each regulator must be installed so as to minimize anticipated stresses upon the connecting piping and the meter.
- (b) When close all-thread nipples are used, the wall thickness remaining after the threads are cut must meet the minimum wall thickness requirements of this part.
- (c) Connections made of lead or other easily damaged material may not be used in the installation of meters or regulators.
- (d) Each regulator that might release gas in its operation must be vented to the outside atmosphere.

GUIDE MATERIAL

1 ACCESSIBILITY

The meter should be installed where it can be easily read and the connections are accessible. See guide material under §192.353 for location considerations.

2 MINIMIZING ANTICIPATED STRESSES

- (a) Care should be taken to ensure that the meter set assembly is not installed under stress.
- (b) Where practical, the outside portion of the service line, including associated piping, should be designed so that damage to the service line due to outside forces will not cause leakage inside a building.
- (c) Swing joint piping techniques may be used to reduce the problems of piping stress and for ease of installation. For pipe sizes up to 1 1/4" where meter bars are not installed for piping support, it is common industry practice to use swing joint piping.
- (d) For threaded metallic joints, see guide material under §192.273.
- (e) Piping should be supported to minimize stress on the regulator body, meter case, and piping. Appropriate blocking, pads, stands, brackets, and hangers should be used as necessary. Supports for horizontal steel piping should be spaced so that the distances listed in Table 192.357I are not exceeded.
- (f) Reasonable precautions, such as increased pipe wall thickness, may be taken to protect the meter set assembly or service regulator from natural or other hazards.

MAXIMUM HORIZONTAL SUPPORT SPACING FOR STEEL PIPING	
Nominal Pipe Size (Inches)	Maximum Support Spacing (Feet)
1/2	6
3/4 or 1	8
1 1/4 through 2	10
2 and larger	See MSS SP-58 and MSS SP-69

TABLE 192.357I

3 VENTING OF REGULATORS AND RELIEFS TO THE OUTSIDE ATMOSPHERE

See 4 and 5 of the guide material under §192.355.

§192.359

Customer meter installations: Operating pressure.

[Effective Date: 07/13/98]

- (a) A meter may not be used at a pressure that is more than 67 percent of the manufacturer's shell test pressure.
- (b) Each newly installed meter manufactured after November 12, 1970, must have been tested to a minimum of 10 p.s.i. (69 kPa) gage.
- (c) A rebuilt or repaired tinned steel case meter may not be used at a pressure that is more than 50 percent of the pressure used to test the meter after rebuilding or repairing.

[Amdt. 192-3, 35 FR 17659, Nov. 17, 1970; Amdt. 192-85, 63 FR 37500, July 13, 1998]

GUIDE MATERIAL

No guide material necessary.

§192.361

Service lines: Installation.

[Effective Date: 10/15/03]

(a) **Depth.** Each buried service line must be installed with at least 12 inches (305 millimeters) of cover in private property and at least 18 inches (457 millimeters) of cover in streets and roads. However, where an underground structure prevents installation at those depths, the service line must be able to withstand any anticipated external load.

(b) **Support and backfill.** Each service line must be properly supported on undisturbed or well-compacted soil, and material used for backfill must be free of materials that could damage the pipe or its coating.

(c) **Grading for drainage.** Where condensate in the gas might cause interruption in the gas supply to the customer, the service line must be graded so as to drain into the main or into drips at the low points in the service line.

(d) **Protection against piping strain and external loading.** Each service line must be installed so as to minimize anticipated piping strain and external loading.

(e) **Installation of service lines into buildings.** Each underground service line installed below grade through the outer foundation wall of a building must --

(1) In the case of a metal service line, be protected against corrosion;

(2) In the case of a plastic service line, be protected from shearing action and backfill settlement; and

(3) Be sealed at the foundation wall to prevent leakage into the building.

(f) **Installation of service lines under buildings.** Where an underground service line is installed under a building --

(1) It must be encased in a gas tight conduit;

(2) The conduit and the service line must, if the service line supplies the building it underlies, extend into a normally usable and accessible part of the building; and

(3) The space between the conduit and the service line must be sealed to prevent gas leakage into the building and, if the conduit is sealed at both ends, a vent line from the annular space must extend to a point where gas would not be a hazard, and extend above grade, terminating in a rain and insect resistant fitting.

(g) **Locating underground service lines.** Each underground nonmetallic service line that is not encased must have a means of locating the pipe that complies with §192.321(e).

[Amdt. 192-75, 61 FR 18512, Apr. 26, 1996 with Amdt. 192-75 Correction, 61 FR 38403, July 24, 1996; Amdt. 192-85, 63 FR 37500, July 13, 1998; Amdt. 192-93, 68 FR 53895, Sept. 15, 2003]

GUIDE MATERIAL

1 COVER CONSIDERATIONS

(a) Where cover requirements cannot be met due to existing substructures, the portions of the service lines which could be subjected to superimposed loads should be cased or bridged, or the pipe should be appropriately strengthened.

(b) See Guide Material Appendix G-192-13 for additional cover considerations and for considerations to minimize damage by outside forces.

2 COATED STEEL SERVICE LINES IN BORES

2.1 General.

When coated steel pipe is to be installed in a bore, care should be taken to prevent damage to the coating during installation.

2.2 Boring or driving.

- (a) When a coated steel pipeline is to be installed by boring or driving, the pipe should not be used as the bore pipe or drive pipe unless the coating is sufficiently durable to withstand the operation. If considering retaining the bored or driven pipe as the carrier pipe, it should be demonstrable that the coating is sufficiently durable for the anticipated soil conditions and installation forces. Where significant damage to the coating may result from boring or driving, the coated pipeline should be installed in an oversize bore or in casing pipe of sufficient diameter to accommodate the pipe.
- (b) See Guide Material Appendix G-192-6 for damage prevention considerations while performing directional drilling or using other trenchless technologies.
- (c) See Guide Material Appendices G-192-15A and G-192-15B for additional considerations for horizontal directional drilling to install steel pipelines and plastic pipelines, respectively.

2.3 Special consideration.

In exceptionally rocky soil, and if significant damage to the coating is likely, coated pipe should not be inserted through an open bore.

3 PLASTIC SERVICE LINES

3.1 Main connection.

The excavation below the piping at the main connection should be tamped using compactable material. Where non-compactable material is present, such as very wet mud, it may be necessary to replace it with compactable material.

The connection between a PE service line and the main is particularly susceptible to excessive shear stresses due to the design of the joint. Consideration should be made in the joint design to determine if a protective sleeve is necessary, in addition to providing adequate backfill and compaction around the transition area, to reduce excessive bending and shear stresses. Protective sleeves that are designed to mitigate the stresses imposed onto the plastic pipe in the transition areas should be considered if undue stresses at this joint are anticipated, or if recommended by the manufacturer. For protective sleeves, see guide material under §192.367. For guide material specific to protective bridging sleeves, see Figures 192.361A and 192.361B.

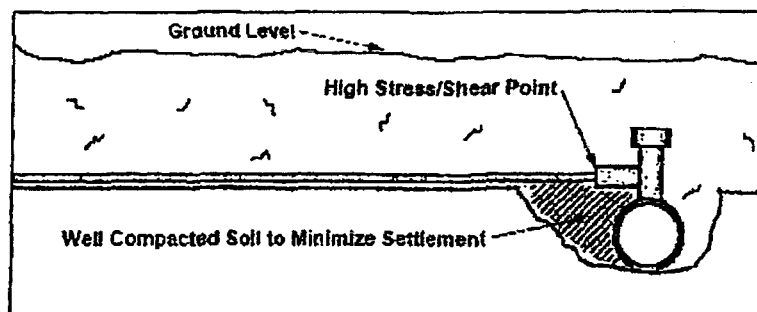


FIGURE 192.361A
Tapping Tee Installation with Compaction of Soil

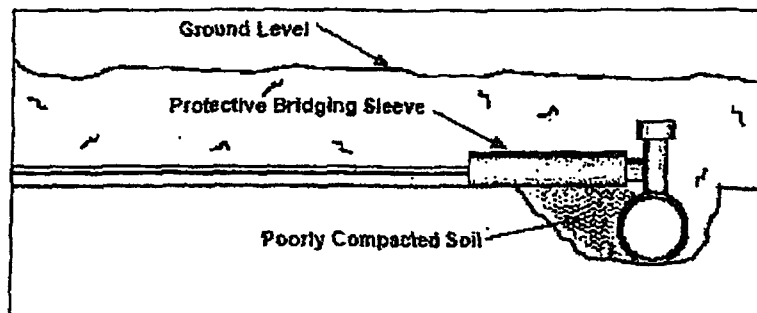


FIGURE 192.361B
Tapping Tee Installation Using Protective Bridging Sleeve
Across Poorly Compacted Soil

3.2 Building wall or meter set assembly.

The transition from plastic pipe to more rigid piping should be protected from shear and bending as at the main connection. The considerations in 3.1 above should be applied to joints in PE piping in the transition area to the meter riser and the through-the-wall fitting at the building wall or meter set assembly. If there is neither a basement excavation nor a footing excavation, the trench bottom should be compacted and smoothed.

If there is either a basement excavation or a footing excavation, compaction may not be feasible because of possible damage to the building wall. Where compaction is not feasible, some other method of continuous support for the service line should be provided over the disturbed soil.

3.3 Boring.

See Guide Material Appendix G-192-6 for damage prevention considerations while performing directional drilling or using other trenchless technologies.

3.4 Locating underground service lines.

See 2.4 of the guide material under §192.321 for providing a means of locating nonmetallic service lines.

4 CONSOLIDATION

If trench flooding is used to consolidate the backfill, care should be taken to see that the pipe is not floated from its firm bearing on the trench bottom. Where service lines are installed in existing or proposed roadways or in unstable soil, flooding should be augmented by wheel rolling or mechanical compaction. Multi-lift mechanical compaction can be used in lieu of flooding.

5 ADJACENT UNDERGROUND STRUCTURES

5.1 Existing structures.

When installing a new service line or replacing an existing service line, the proximity and condition of existing conduits, ducts, sewer lines and similar structures, including abandoned structures, should be considered since they have the potential to provide a path for the migration of leaking gas.

5.2 Trees and shrubs.

Consideration should be given to not installing service lines in close proximity to specific types of trees or shrubs which have extensive root growth, particularly the younger ones. Such growth could exert forces on the pipe and nearby joints.

5.3 Underground clearance and heat sources.

- (a) Each gas service line should be installed with sufficient clearance from, or insulated from, any known heat source (e.g., an underground electric or steam line), which could impair the serviceability of the gas service line.
- (b) The operator should consider the degree of the hazard presented by the heat source when determining the clearance, insulation, or protective material.
- (c) If possible, the operator should install the gas service line with sufficient clearance from adjacent facilities in order to access it for any necessary repairs or inspections.
- (d) The Common Ground Alliance's "Best Practices" Guide includes Practice Statement 2-12 titled "Supply Line Separation" and is available at www.commongroundalliance.com. Practice Statement 2-12 recommends a minimum of 12-inch radial separation between supply facilities, such as steam lines, plastic gas lines, other fuel lines, and direct buried electrical supply lines, when installing new direct buried supply facilities in a common trench. If 12-inch separation cannot be feasibly attained at the time of installation, the Practice Statement recommends taking mitigating measures, including the use of insulators, casing, shields, or spacers.
- (e) Some low-voltage and high-voltage electric lines may increase the average annual ground temperature of the earth near plastic gas service lines. In such cases, the temperature profile should be established based on the construction, material, and operating conditions. For information on the impact of average annual and maximum ground temperatures and how and when to obtain a temperature profile, refer to "Effect of Elevated Ground Temperature (from Electric Cables) on the Pressure Rating of PE Pipe in Gas Piping Applications," AGA Operations Conference, April 2007, available at www.aga.org/gptc. The effect of this increased average annual ground temperature is a possible decrease in the pressure rating of plastic pipe. This can be determined by contacting the plastic pipe manufacturer for pressure rating data to determine the LTHS (HDB) at this increased average annual ground temperature using the temperature interpolation method described in PPI TR-3 (also, see 4 of the guide material under §192.121).

6 OTHER CONSIDERATIONS

- (a) For threaded metallic connections, see guide material under §192.273.
- (b) For main connections, see §192.367.

§192.363

Service lines: Valve requirements.

[Effective Date: 11/12/70]

- (a) Each service line must have a service-line valve that meets the applicable requirements of Subparts B and D of this part. A valve incorporated in a meter bar, that allows the meter to be bypassed, may not be used as a service line valve.
- (b) A soft seat service line valve may not be used if its ability to control the flow of gas could be adversely affected by exposure to anticipated heat.
- (c) Each service-line valve on a 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.