Northeast
GAS ASSOCIATION

NY Service Line Definition Transition

A Northeast Gas Association White Paper

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Executive Summary

This paper examines the technical and policy implications of a proposed change to the New York Public Service Commission's ("NYPSC" or "Commission") regulations that would modify the existing New York State definition of a gas "service line" as set forth in 16 NYCRR Part 255.3 to "align" it with the Federal definition in 49 CFR 192.3. The essential change would be to extend the service line to include customer-owned inside piping that connects to the outlet of the meter where a meter is installed within a building. This change brings with it a wide range of potential impacts including: utility operators' assumption of operational responsibility for existing customer-installed and owned piping; significant changes to professional plumber (and related trades, *e.g.,* HVAC contractors) training and certification requirements; a requirement for drug and alcohol testing of privately contracted plumbers; and a new requirement for utilities to conduct mandatory programs of leakage surveys and atmospheric corrosion inspections on piping inside customers' premises. In response to the proposed regulations, utility operators in New York State along with the Northeast Gas Association (NGA) sought to develop a prudent and cost effective strategy for responding to the proposed changes in regulations in the interest of promoting public safety.

The NGA collaborative engaged the Gas Technology Institute ("GTI"), a well-established and well-known industry expert, to assess operator inside inspection data to better understand the safety condition of inside customer piping. The ultimate goal of the study was to provide a sound engineering basis for evaluating and ranking threats and risk with these facilities in accordance with the requirements of 49 CFR 192 Subpart P – Gas Distribution Pipeline Integrity Management. More specifically, the study was aimed at providing a technical basis,

in combination with other risk mitigation factors, for determining inspection intervals for inside piping that are appropriate and proportional to the aforementioned risk as a practical approach to achieving compliance with the proposed regulations. Operators' Distribution Integrity Management Programs ("DIMP") can be structured to provide an overall level of safety at least equal to the Federal minimum standards with a reduced frequency of periodic inspections that is fully justified by the available technical data. This approach is permitted under49 CFR 192.1013 Subpart P and may be approved by the appropriate State agency for intrastate pipelines including New York's local gas distribution utilities.

Operators in New York State are currently subject to a series of state safety regulations that go beyond and are more stringent than Federal code with regard to inside facilities. Examples include the obligations contained in 16 NYCRR Parts 255 (Transmission and Distribution of Gas) and 261 (Piping Beyond the Meter),which requires operators to:(i) perform safety related inspections of inside customer-owned piping and appliance safety performance;(ii) perform inspections and tightness testing prior to system start-up of customer-owned piping;(iii)report safety related emergency response metrics that require operators to address gas-related odor complaints in rapid fashion; and (iv)provide gas odorization that ensures detection by a person with an average sense of smell at half the gas concentration specified by Federal rules. In addition to these requirements, customer-owned piping throughout the State is subject to rigorous safety requirements under local building codes, particularly in New York City, where numerous construction, maintenance and qualification rules exist to ensure work is inspected and performed by properly qualified, skilled licensed trade professionals.

In the aggregate, the above-described "layers of protection" result in a robust pipeline safety regulatory scheme that is more rigorous and fully compatible with the existing Federal pipeline safety standards. More significantly, the findings in the attached engineering study, viewed in the context of the overall framework of pipeline safety regulation in New York, provide a reasonable basis to clarify the manner in which the Federal "service line" definition should be implemented in New York to provide a high level of safety protection to New York's citizens.

This Paper concludes with a series of recommendations for the Commission to clarify the manner in which it will implement the transition to the Federal definition of "service line." Specifically, these recommendations address (i) the timing of when full compliance with the revised rule should commence; (ii) the manner in which leakage checks and corrosion inspections will be required on inside piping and the development of a periodic inside survey and inspection program; (iii)a request for substantially extended inspection intervals as part of such a program, as allowed under DIMP rules (49 CFR 192.1013);(iv) a request for confirmation that leakage surveys within a customer's building may be conducted using a properly calibrated combustible gas indicator or other approved equivalent device; and (v) clarification that utilities will only be required to implement Operator Qualification ("OQ") and Drug and Alcohol ("D&A") programs for plumbers and their employees when they are under contract to or employed by the utility or a utility contractor, and that the OQ requirements do not apply to repairs made by third-parties on inactive (*i.e.*, de-energized) customer-owned piping.

For utilities providing service in urban areas, performing programmatic corrosion inspections on meters located in individual apartments (commonly referred to as "room sets") presents a significant operational and logistical challenge. Because these indoor facilities are less

susceptible to atmospheric corrosion, they have not historically created safety issues. Accordingly, operators are proposing to perform engineering and safety studies of room sets during the contemplated three-year phase-in period for compliance with the new definition of service line. Operators will develop an engineering study, which will employ statistical principles, review with Staff and, if the results demonstrate that no programmatic testing is warranted, apply for a special permit to modify the inspection cycle to provide for inspections in cases where access is granted to the room set during other routine work by the utility.

Background

The Pipeline and Hazardous Materials Safety Administration ("PHMSA") has advised the Department of Public Service ("DPS") of the NYPSC that it must revise several of its regulations as they are considered by PHMSA to be less stringent than their Federal counterparts. The revised definition of "service line" is the most significant of the proposed changes.

The definition of "service line" is relevant to dozens of sections of Federal gas safety code, from design and construction, to testing, operations and beyond. This Paper focuses on the definition as it affects corrosion inspections and leakage surveys, as well as the training, qualification and drug and alcohol testing requirements that personnel performing such tasks on service lines must meet. New York operators believe that these activities and requirements are the most problematic to comply with under the Federal definition of a service line. There

are, as alluded to above, other impacts that will require assessment when the definition (or how it is applied) changes.

This Paper discusses risk mitigation activities provided by utilities and the licensed plumbing trades under the rules of the NYPSC and municipal authorities. In many cases, these go well beyond what is required by the Federal minimum safety standards with respect to gas piping within buildings. This paper also introduces the findings and recommendations of GTI, which has reviewed technical studies of atmospheric corrosion and data collected by multiple operators on atmospheric corrosion and leakage on inside gas systems. In the aggregate, GTI's findings, coupled with the added layers of pipeline safety enhancements provided by operators and local municipalities under New York regulations, support adopting alternative compliance requirements as permitted under the Distribution Integrity rules, 49 CFR 192.1013. The practicability and cost to transition to the Federal definition will also be examined.

Service Line Definition - Despite changes, the differences between the NYPSC and Federal definitions of "service line" have existed for over forty years (Table 1)in both Federal and New York regulations, currently 49 CFR 192.3 and 16 NYCRR 255.3, respectively. The current New York definition was intended to address the impracticalities created by a service line definition that extended to interior piping.

The key difference between the PHMSA and NYPSC definitions relates to service lines with inside meters. Under the current NYPSC definition (16NYCRR Part 255.3(29),[1] such a service is deemed to terminate at the first fitting inside the building wall (Fig. 1). In New York, outside metered services terminate outside the building wall, encompassing more piping than the Federal definition, in which the service terminates at the meter outlet.

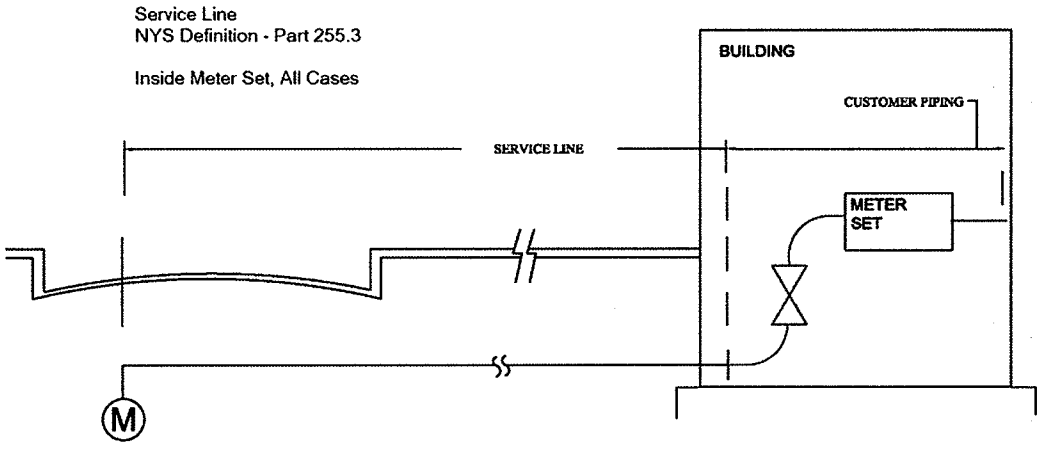
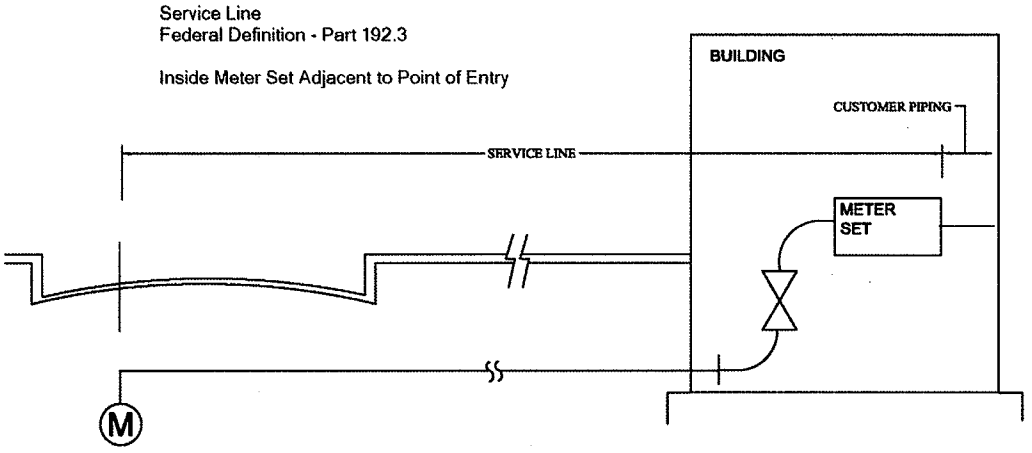


Fig. 1

[1] 255.3(29) Service line means the piping, including associated metering and pressure reducing appurtenances, that transports gas below grade from a main or transmission line to the first fitting inside a wall of the customer's building where a meter is located within the building; if a meter is located outside the building, the service will be deemed to terminate at the outside of the building foundations wall.

The proposed NYPSC definition would mirror the existing Federal code (49 CFR Part 192.3)[2] in that it would extend the responsibility of the operator to the outlet of an inside meter under Part 255. The resultant change is shown in Fig. 2.

Fig. 2



The Federal and NYPSC definitions also cover the case where there is no meter (Fig. 3). Though uncommon, such situations do exist and were anticipated and accommodated by the code writers. The service is deemed to terminate where the customer's piping begins. Regulation of customer piping is under the jurisdiction of local authorities, such as building departments. The obligations of the serving gas operator, customer and/or trades are defined by those authorities.

[2] 192.3 *Service line* means a distribution line that transports gas from a common source of supply to an individual customer, to two adjacent or adjoining residential or small commercial customers, or to multiple residential or small commercial customers served through a meter header or manifold. A service line ends at the outlet of the customer meter or at the connection to a customer's piping, whichever is further downstream, or at the connection to customer piping if there is no meter.

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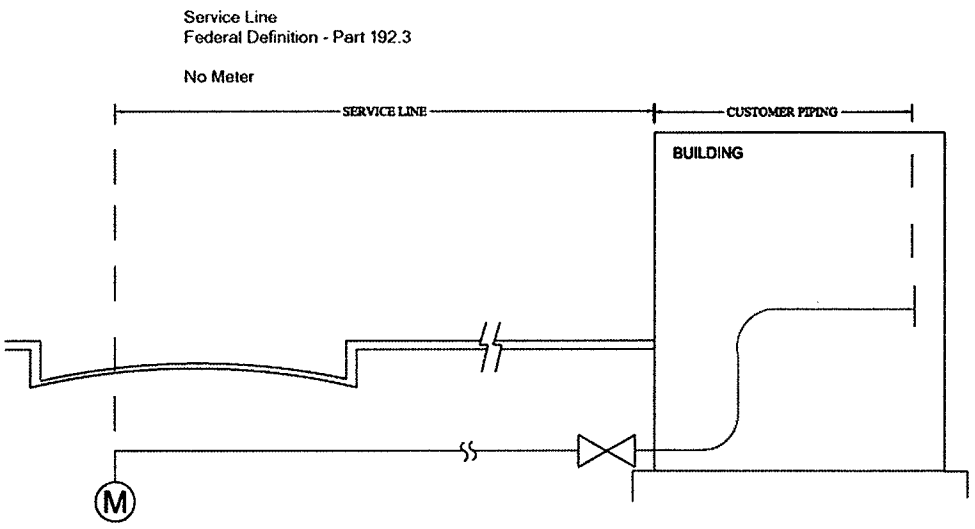


Fig. 3

The most problematic installation under the Federal definition is one in which an inside meters located remotely from the point of entry ("POE") of the service line and/or includes portions of piping between the POE and meter set that are concealed in walls, ceilings, floors or chases, rendering them concealed and inaccessible. Customer meters may be located in remote meter rooms, or most problematically, in individual dwelling units otherwise known as "room sets" (See Fig. 4).

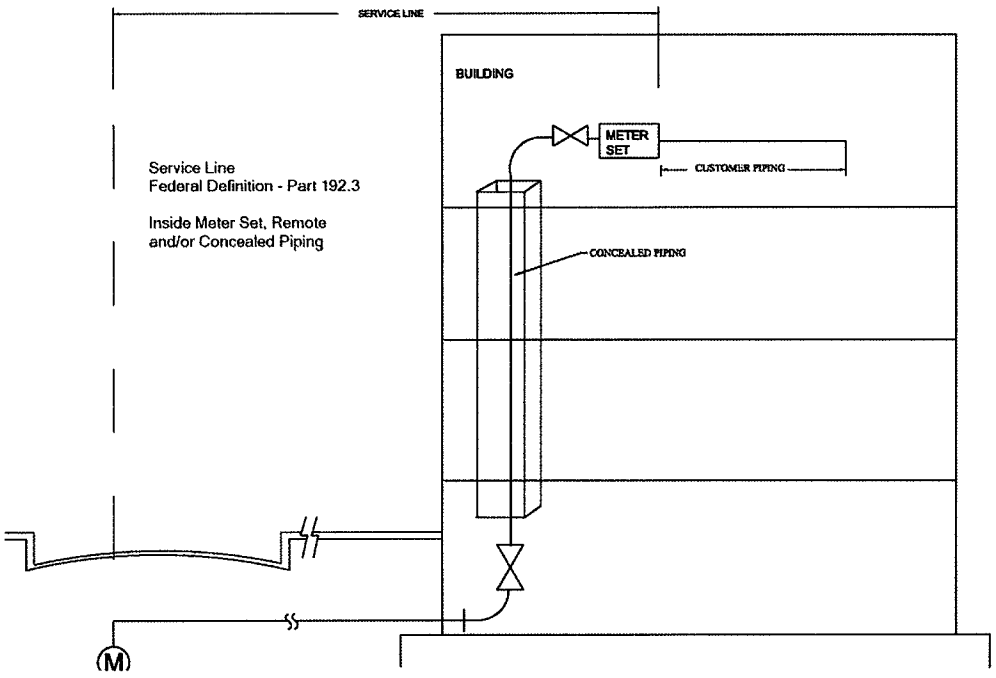


Fig. 4

Issues Related Directly to the Definition

Figs. 2 and 3, showing the demarcation when there is an inside meter or no meter at all, demonstrate that from a jurisdictional view, the presence of a meter delineates the point at which a distribution operator's safety responsibility and liability ends under Federal regulation. Where a meter is located outside a building, or where there is no meter, jurisdiction and ownership of the pipe downstream of the meter or downstream of where the utility piping connects to the customer's piping falls to the local authorities, the regulated plumbing trades and the building owner. Along with this generally goes the responsibility for construction, operation, and maintenance of that piping, as well as assumption of any risks associated with it.

The Federal definition creates a distinction with respect to operator responsibility for interior piping depending on the placement of a meter. In contrast, the current NYPSC definition results in a consistent view of gas piping within buildings, with accountability for inside

piping, regardless of the placement or absence of a meter belonging to the owner under the jurisdiction of local authorities.

It should be noted that operators outside New York, when faced with difficulties associated with reading inside meters or performance of required surveys and inspections of inside service piping, have often been advised by regulators to move their meters outside the building. It is our understanding that this has been a recommended practice and has been included as a requirement in Federal waivers affecting the frequency of inside surveys and inspections. When the meter is moved outside, the piping inside the building that had been service piping becomes non-jurisdictional under PHMSA's regulations. Jurisdiction for inside piping then falls to the local authorities. This raises a basic question – if the safety of gas piping within buildings is a matter for local jurisdiction when the meter is outside the building, or if there is no meter, why should it not also be a matter for local jurisdiction between the POE and an inside meter? From a gas safety risk perspective, it makes no difference whether a meter is located inside or outside a building.

Issues as a Consequence of the Revised Definition

There are a number of issues that arise as a result of the proposed change in the NYPSC service line definition.

Periodic Leakage Surveys and Atmospheric Corrosion Inspections –

When the NYPSC definition of service line is changed, interior piping from the POE to the outlet of the meter will be subject to periodic survey and inspection requirements. Appropriate management systems will have to be developed to ensure compliance. All affected personnel will require training and changes in procedures and record keeping will be necessary as well.

Under the existing NYPSC definition of service line, there is essentially no visible inside service piping that would be included in leakage surveys or atmospheric corrosion inspections. Operators have, therefore, typically not performed inside leakage surveys and atmospheric corrosion inspections in the fully programmatic, cyclically scheduled way that other periodic inspections, such as cathodic protection surveys and outside leakage surveys, have been performed.

Concealed Piping and Access – As shown in Fig. 4, New York utilities provide service to buildings that have concealed piping and remotely located meters. The leakage survey and atmospheric corrosion inspection rules require 100% coverage of the service line. This can reasonably be completed outside a building but it is not practicable inside a building, except on exposed, readily visible and accessible piping. Access to the front wall and exposed piping at the POE is generally practicable. The inability to get in to a building – the "can't get in" or "CGI" problem – is a problem at a number of locations. While access to a meter room is generally not a significant problem, initial estimates are that there are over 220,000 meters in individual units within buildings ("room sets") in New York City alone. CGI issues will be a considerable and potentially overwhelming challenge for operators to manage in those buildings.

Accessing concealed piping, whether in the structure of a building or in an individual dwelling unit, is not a practicable endeavor. Achieving 100% coverage of interior piping between the POE and meter outlet will be impracticable in a number of locations due to concealed piping. Overall, New York utilities estimate that over 2,000,000 meters/services will be subject to additional inspection requirements as a result of the proposed change in the definition of service line and, without consideration to the recommendations in this paper,

these utilities would incur over $100,000,000 in incremental inspection costs over the first three years (and a recurring cost in excess of $30,000,000 per year thereafter) with limited public safety benefits.

Operator Qualifications– Utility personnel and utility contractors are already covered by qualification programs under 49 CFR 192.805. The PSC's Notice of Proposed Rulemaking ("NOPR") asserts that utilities will be expected to require that plumbers who perform covered tasks on service lines as defined in Part 192.801, must be qualified under such a program. Under the current regulatory framework, state, county, or municipality may have in place programs under which members of the plumbing and associated trades become qualified (under the applicable rules of the entity having jurisdiction) to perform the tasks associated with gas service line construction, maintenance and operation. While these programs may not technically comply with the requirement of Part 192, they are equally or more stringent than Part 192. The New York State Department of Labor, for example, requires 10,000 hours of apprenticeship training, including work on connections to gas piping, and 50 hours specifically on gas piping to become a licensed plumber. This program should be considered as at least equivalent to, and acceptable in lieu of a duplicative qualification process under Part 192.

Moreover, in the vast majority of cases, third-party repairs to indoor facilities will be performed on inactive/de-energized piping. Upon the occurrence of a significant safety related condition associated with indoor piping, including a leak that cannot be immediately

addressed by the utility by "applying a wrench,"[3] the service is normally isolated by the utility through a detailed "Warning Tag" process and the customer is required to make repairs using a third-party contractor. Once the inactive piping is repaired, an operator qualified utility employee/contractor is called back to conduct a safety inspection (including a pressure test) and re-energize the piping. As a result of these regulations and procedures, a third-party contractor should only be working on de-energized, customer owned piping that has been isolated and locked off at the meter, and gas service will only be restored following an inspection by an operator qualified utility representative.

Imposing the Part 192 operator qualification processes on trades covered by other comprehensive programs would impose costs that far outweigh any potential benefit. With respect to the costs of operator qualification training and testing for plumbers, we understand that there are approximately 1,400 licensed Master Plumbers in New York City. If each supervises 10 tradesmen, that is a population of 14,000 plumbers. Considering that the population of New York City is approximately half that of the entire state, then perhaps as many as 28,000 individuals are employed as plumbers in NY State. We would envision that qualifying those individuals would require a day dedicated to review and a day for testing. A cost estimate of that undertaking can be based upon plumber's pay or lost productivity to the business. Estimating plumbers' pay at $200/day or lost productivity at $100/hour results in an

[3]Under 16 NYCRR Part 261 ("Piping Beyond the Meter"), utilities are required to notify a customer of a potentially hazardous condition and to isolate and tag the equipment out of service until such time as a customer has the situation corrected. The utility will typically perform "wrench tighten" simple repairs on minor leaks within a building. If service is interrupted, the customer must call the utility back upon completion of repairs to inspect, perform leak checks, re-energize the piping and re-lite equipment.

impact between $11.2 million and $44.8 million.[4]The covered tasks have refresher requirements of 3-5 years, which would require cyclical expenditures of this magnitude. Moreover, these cost estimates do not consider the costs of providing training and testing.

Drug & Alcohol Testing –Under 49 CFR Part 199.3, "Covered employee, employee, or individual to be tested means a person who performs a covered function, including persons employed by operators, contractors engaged by operators, and persons employed by such contractors."[5]The "including" clause is most reasonably read to limit the applicability of the definition to personnel that are working for the operator or its contractor. A third party not engaged by the operator or its contractor does not appear to be a covered employee, even if they build or maintain a portion of service line, and even if the operator later assumes accountability for its operation or maintenance.

If drug and alcohol testing were required for a population of 28,000 plumbers, a rough estimate of some of the costs that would likely be incurred includes start-up costs of approximately $1.26 million and ongoing annual costs of approximately $1.5 million per year.[6]

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[4]Assuming that it would cost plumbers $200 per day of lost pay to participate in two days of operator qualification programming and testing means that requiring two days of operator qualification and training would cost 28,000 plumbers $11.2 million in the aggregate. Assuming that two days of lost productivity costs employers $100 per hour results in an estimate of the value of lost productivity of $44.8 million.

[5]*See also* 16 NYCRR § 262.3(c) for the same definition.

[6] An estimate of the specific costs is as follows:

Prior NTSB Recommendation

In 1974, a pipeline safety incident occurred in Consolidated Edison Company of New York, Inc.'s ("Con Ed") service territory, severely damaging a 35-story building and injuring a number of people. A pressurized water vessel failed in the basement and in the process broke the interior gas piping. The NTSB's 1976 report (NTSB-PAR-76-2) addressed the issue of gas safety regulation over interior gas piping as follows:

> "Gas Lines Inside Buildings
> "... OPS contends that all the piping in the building, up to the meters, is subject to every section of 49 CFR 192, including corrosion control and operation and maintenance requirements. While the Federal regulation mandates responsibility for this piping to pipeline operators, no enforcement of these regulations has taken place. A more realistic approach would be for the owner of a building to be responsible for the piping. Most cities have jurisdiction over gas piping in buildings, and they are in a more realistic position than Federal or State agencies to enforce standards concerning this piping."
>
> "Gas Line Jurisdiction Inside Commercial Buildings
> "There are thousands of feet of gas service lines which extend from basement walls up through the building to the farthest gas meter and which are not under PSC's jurisdiction. Hundreds of feet of these lines are in walls, floors, ceilings, and other areas which are impossible to inspect. As a result, it is impossible to supervise their operation and maintenance. In New York City, the Department of Buildings has gas piping under its jurisdiction. It checks the piping design and inspects the installed piping in new buildings. Once approved, the buildings' owners have responsibility for the piping."
>
> NTSB Conclusion

DOT drug test (pre-employment)	$45.00 / test	Must be DOT tested	28,000 x 45 = $1,260,000 (plus any new hires)
DOT drug test (random)	$45.00 / test	25% of 14,000 = 7,500 / yr	7,000 x 45 = $315,000 / yr
DOT drug & alcohol test	$110.00 / test	post-accident, RTW, follow-up, etc.	(Approx. 12% of 28,000) 3,360 x 110 = $369,600 / yr
TPA administrative cost	$30.00 /empl	depends on TPA	28,000 x 30 = $840,000 / yr

"The Federal regulation requiring pipeline operators to be responsible for the operation and maintenance of gas piping inside buildings over which they have no control is unrealistic and impractical."

NTSB Recommendation (to OPSO / DOT)
"Amend 49 CFR 192 to define more realistically an operator's responsibility for gas piping inside buildings. (Recommendation P-76-10) (Class II, Priority Follow-up)"

The NTSB's findings confirmed that it would be "unrealistic and impractical" to require operators to operate and maintain inside piping provides confirmation that the issues presented by the NYPSC's NOPR raise genuine concerns that must be addressed by the Commission in formulating practical regulations concerning inside piping.

Stringency of Codes and Risk Management

The NYPSC has adopted safety regulations and standards that add significant pipeline safety requirements that exceed the Federal safety standards. Taken as a whole, the combination of NYPSC and local regulations create a pipeline safety framework that is far more stringent and rigorous than the requirements of Federal safety regulations.

New York State's Additional Pipeline Safety-Related Risk Mitigation Policies - NYPSC

Part 255 of the NYPSC's regulations set forth utilities' obligations regarding safety, risk management and operation and maintenance of service lines. A number of noteworthy enhancements that go beyond Part 192of the Federal regulations were summarized in the *Compendium of State Pipeline Safety Requirements & Initiatives Providing Increased Public Safety Levels compared to Code of Federal Regulations*, prepared by the National Association of Pipeline Safety Representatives. A brief list of the relevant enhancements to Federal regulations includes: regular reporting of service interruptions; submittal to and acceptance by the DPS of O&M and emergency response plans; reporting of times to respond

to emergency odor calls; service pressure test requirements; pressure and pressure variability limits on low pressure services; requirements for pressure regulating and gas cleaning in service lines; periodic inspections of regulator vent lines; enhanced odorization of gas in distribution and service lines such that gas is readily detectable by a person with an average sense of smell at half the concentration of gas prescribed by Federal regulation (readily detectable at 10% of the lower explosive limit("LEL") in New York, *vs.* 20% LEL in Part 192); timeframes for correction of deficiencies.

Safety requirements related to piping downstream of service line are also set forth in utility rate agreements and other sections of the NYPSC'sregulations (see Parts 230 and 261). For example, Part 261 of the NYPSC's regulations exceeds Federal requirements and sets forth safety requirements related to downstream piping, inside leaks, pressure, carbon monoxide production, periodic inspection of regulator vents, classification of existing and potential hazards inside a building, issuance of warning tags to owners, make-safe actions required (from isolation of piping or equipment to disruption of service), follow-up actions by the utility or building owner, and referrals to Social Services when gas heating service must be interrupted for safety. In addition, where gas piping downstream of the meter returns underground, the utility must provide leakage surveys of all such known pipe. Other sections of the NYPSC's regulations specify metering accuracy and replacement standards and prescribe gas quality standards (which affect piping and end-use combustion).

Rapid response to leak and odor calls is the subject of requirements that have been developed in individual utility rates cases. A failure on the part of the utility to meet these standards will subject it to significant downward revenue adjustments. For example, National Grid's New York utilities are generally required to respond to 75% of gas leak and odor calls within 30 minutes, 90% in 45 minutes and 95% within 60 minutes.

NY State's Additional Pipeline Safety Risk Mitigation Policies – Municipalities and Trades

New York's municipalities, villages, and counties typically prescribe stringent requirements for (i) gas piping within buildings, (ii) who may construct or work on such piping, (iii) their qualifications for licensure, (iv) the testing of piping, and (v) how and by whom it is inspected. NFPA 54, the National Fuel Gas Code, is an example of the detailed industry standards that are generally incorporated by reference in local codes.

In response to the stringent requirements of codes such as the New York City Building Code, local plumbing trades have adopted their own detailed programs for classroom training and on-the-job practical experience for new personnel, and for progression to journeymen and master plumber. A Master Plumber's license is required to perform, supervise or inspect gas work in New York City buildings. Moreover, there is close cooperation between New York City's utilities, the Building Department and plumbers. For example, Con Ed's "Yellow Book" and National Grid's "Blue Book" provide up-to-date guidance to plumbers on gas piping and utilization-related matters. Under procedures developed in response to NYPSC rules, utilities regularly notify building owners of the need to have a licensed plumber make repairs when customer piping or equipment is found to be in disrepair.

When a plumber completes work on a new gas piping installation, it is inspected in accordance with New York City Building Department rules, pressure tested, and a confirmatory notice (*e.g.,* a "Blue Card") is given to the utility. The utility then conducts its own "start and inspect" process according to its NYPSC-filed O&M plan, and only energizes

the line when the certification, piping and equipment are found to be in order. The equipment is then checked for proper operation. The process is consistent whether a meter set is within or outside a building.

Plumbers routinely operate gas valves in order to complete their work. This is a basic task for plumbers for which they are qualified for by their experience, training and supervision under building department rules. Plumbers are certainly qualified to work on gas piping downstream of the meter and should be considered equally qualified to work on piping between the POE and a gas meter without having to contract with a utility.

Condition and Performance of Inside Piping

The Northeast Gas Association engaged GTI to prepare its own analysis, *Risk-Based Atmospheric Corrosion / Leak Survey Considerations*. The GTI Analysis is attached hereto as Appendix A. The Paper reviews the fundamental principles of indoor and outdoor atmospheric corrosion. It provides a detailed review of the published, peer-reviewed literature concerning field data on indoor corrosion, and compares and contrasts this to data concerning outdoor corrosion for iron and steel piping materials. In addition, thousands of recent inspections in New York and New England States completed by operators on outdoor and indoor services were collected and statistically analyzed to determine the trends and drivers behind the observed corrosion rates. A similar analysis was completed using exclusively indoor leak survey data from LDC operators. GTI's technical experts were provided current field data from New York LDCs, data previously collected nationally, and New York and regional data extracted from one operator's field data capture system. Finally,

all the findings were summarized and related to risk-based considerations for the purpose of establishing appropriate inspection intervals for indoor service piping.

In brief, GTI found that corrosion of inside piping (at a high level of confidence) was orders of magnitude (100 to 1,000 times) slower than corrosion on outside piping. Indoor corrosion is a very slow process in nearly all cases. Corrosion beyond benign surface oxidation was found in only 2% of inspections and either on-scene or scheduled repair or replacement was warranted in 1% or fewer cases. Corrosion was found somewhat more likely in the vicinity of the POE than in meter rooms or remote locations. Corrosion was also noted more frequently in multifamily buildings than single residences or commercial establishments. Leakage and corrosion were not well correlated. Leakage was most often found at pipe and its threaded connections. Meter and regulator piping accounted for only 2% of the leaks. Odor responses accounted for 72% of leaks found; surveys were comparatively unproductive. Including odor response calls, only approximately 0.1% of the visits found leaks that caused more than a minor bubbling of soap solution.

GTI's analysis concludes that at a99% confidence level the intervals for corrosion inspections can be significantly extended beyond a three-year cycle - even where corrosion has been evident, and for a considerably longer period where it has not. Continuous assessment of inspection data, as well as appropriate reaction to upset conditions (*e.g.*, floods) should guide any change, under each utility's Distribution Integrity Management Plan.

Utilizing these findings to extend the inspection intervals for indoor piping would be consistent with DIMP principles. Alternatives to the current survey frequencies are

appropriate, especially where revised frequencies can better match resources to buildings that provide indicatives of corrosive environments. At the same time, visits to premises by utility personnel in accordance with current business and safety requirements will continue to provide opportunities to detect leaks and atmospheric corrosion.

Recommendations

Regulations must be practicable. The NYPSC regulations have long recognized that the manner in which indoor meter sets and piping have been installed in New York precludes strict adherence to Federal regulations requiring leakage survey and atmospheric corrosion inspections, especially in buildings where piping between the POE and meter assembly is concealed.

In an effort to achieve practical regulations of inside piping upstream of a customer's meter, NGA offers the following proposals:

Extension of Time for Full Compliance– NGA Proposal

Assuming that the NYPSC adopts the revised service line definition, in its order adopting the revised service line definition, NGA recommends that the time for full compliance with the NOPR be extended for three years to afford utilities reasonable time to develop systems and processes to comply with the revised regulations and conduct additional engineering studies to assess the need to perform programmatic inspections of individual room set meters.

Atmospheric Corrosion and Leak Surveys Inspections - NGA Proposal

NGA recommends that the NYPSC, in its order adopting the revised service line definition, grant an extension of the timeframes for atmospheric corrosion inspections and leak surveys inside buildings in accordance with 49 CFR 192.1013, affecting compliance with 49 CFR 192.481, 16 NYCRR Part 255.481, and 255.723.Based upon the findings of the Gas Technology Institute in its 2014 Analysis, it is reasonable to conclude that gas piping inside buildings corrodes at a rate that is orders of magnitude slower than outside exposed piping. Accordingly, the NYPSC would order

- Concealed inside piping (*e.g.:* in chases, conduits, walls, ceilings, floors) need not be included in corrosion inspections on leak survey.
- Operators would be given up to nine years to complete initial atmospheric corrosion and leakage surveys of inside service piping that is not concealed.
- A look-back of up to three years would be permitted.
- Operators would be required to continue to perform routine atmospheric corrosion and leakage checks in the course of other work within premises when qualified personnel are working in a building, and use data acquired therefrom in assessing the periodic program under their DIMP policies.
- Where actionable levels of atmospheric corrosion are found, the maximum time to the next inspection and survey would be no more than during the 12thcalendar year following the initial inspection.
- Where atmospheric corrosion is no more than a light oxidation, the maximum time to the next inspection and survey would be no more than during the 21st calendar year following the initial inspection.

- Where a building has meters in individual units (room sets), further engineering analysis will be completed during the phase-in period using statistical sampling methods to assess the need for on-going programmatic inspections. Operators will develop the engineering study and review with Staff and, if the results demonstrate that no programmatic testing is warranted, apply for a special permit to modify the inspection cycle to provide for inspections in cases where access is granted to the room set during other routine work by the utility.
- Data from routine checks and programmatic inspections would be used to inform operators' DIMP programs.
- A leakage survey within a customer's building would be conducted using a properly calibrated combustible gas indicator or other approved equivalent device.
- Additional information concerning the framework is attached as Appendix B.

Operator Qualifications – NGA Proposal

NGA recommends that the Commission confirms in its order concerning the NOPR that utilities' responsibility with respect to Operator Qualification (i) extends only to utility employees, utility contractors and their employees and (ii) does not apply to isolated, non-energized customer-owned piping that is inspected by operator-qualified utility personnel prior to re-energizing the pipe.

Drug and Alcohol Programs – NGA Proposal

NGA recommends that the Commission would confirm in its order concerning the NOPR that utilities' responsibility with respect to drug and alcohol programs extends only to utility employees, utility contractors and their employees.

Table 1

Definition of Gas Service Line Through Time - Federal and New York State

Reference	Definition	Extent of Inside Service	Comments
NYS Definition 1968 & prior	ASA B31.1 1955 Sect 8 805.64 Gas service is the pipe that runs between a main or a pipeline and a customer's meter.	extends to the meter, but not beyond	1955 ASA B31 definition cited at left. NYS PSC defined as in the then-current ASA (ASME) B31.8 (1955? 1958? 1963? 1966? 1967? 1968?)
Federal Definition, 1970	192.3 Service Line" means a distribution line that transports gas to a customer meter set assembly from a common source of supply.	extends to the meter, but not beyond	Original Federal code definition
NYS Definition, in place in 1971 (Earliest date TBD)	255.1(k) "Service Line" means the piping that transports gas from a pipeline or main to a customer meter set assembly. [previously 255.185]	extends to the meter, but not beyond	
Federal Definition, May 1973	192.3 Service Line" means a distribution line that transports gas from a common source of supply to (1) a customer meter or the connection to a customer's piping, whichever is farther downstream, or (2) 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 customer.	extends to the outlet of the meter	From the preamble to the Final Rule, Amdt. 192-13 – "The OPS recognizes that every part of the gas distribution system down to the point where the gas is burned should be subjected to some form of safety regulation. Most but not all customer-owned services are installed under a local code. With the adoption of this definition, both OPS and State agencies anticipate that local codes will cover the remaining portion of the service, i.e. to the burner tip. In those cases in which the local code purports to cover piping from the main to the meter, but is actually in conflict with part 192, the Federal standards will, of course, prevail."
NYS Proposed Definition August 1973	255.185 "Service Line" means a distribution line that transports gas from a common source of supply to the outlet of the customer meter set assembly or to the first fitting inside the wall of the customer's structure through which the service enters, whichever is furthest upstream.	First fitting inside the building.	From the Preamble of the Proposed Rule: The intent of this 49CFR Part 192 definition **[referring to the above Federal rulemaking]** of "service line" is problematic in two situations. It is intended that this definition extend the jurisdiction of the Federal standards to "beyond the master meter" distribution systems which are operated, for instance, by garden apartment complexes, municipal housing authorities, etc. Although sub-metering is not allowed in New York State, the Office of Pipeline Safety interpretation of the definition causes almost any distribution system downstream of a customer meter to be jurisdictional whether or not there is any sub-metering. Their interpretation is that

			the service line would terminate at the connection to the ultimate gas user's piping if there is no meter. These "operators" beyond the master meter are not jurisdictional in New York State because they are not gas corporations under Public Service Law. The second situation relates to the extending of jurisdiction over the service line to the "customer meter or the connection to a customer's piping, whichever is farther downstream ——." This means that 49CFR Part 192 jurisdiction is extended over such situations, as is common in our major cities, where the gas corporation meters are located in upper story apartments and the customer, or apartment owner, owns the internal gas piping to the meters. Such customer owned piping within structures is not necessarily accessible to gas corporations for operation and maintenance and it is not purposeful to require gas corporations to perform a function that very frequently cannot be performed. In order to clarify our intent in this regard we have proposed a new definition (255.185) that terminates the service line, for the purposes of this Part, at the first fitting inside the wall of the customer's structure or at the outlet of the customer meter, whichever is further upstream.
NTSB-PAR-76-2	1976 NTSB Report on a 1974 Consolidated Edison Company Explosion at 305 East 45 St, New York, New York	A water system pressurized tank failure ruptured gas piping between the service entry and first gas meter within a multistory building, destroying it and injuring 70 people.	Conclusion #7 – "The Federal regulation requiring pipeline operators to be responsible for the operation and maintenance of gas piping inside buildings over which they have no control is unrealistic and impractical." Recommendation P-76-10 –"Amend 49 CFR 192 to define more realistically an operator's responsibility for gas piping inside buildings." OPS/DOT did not enact the recommendation.
NYS Definition (Proposed Rule April 1977)	255.17(f) Service line means the piping in a distribution system that transports gas from a common source of supply to the outlet of the	First fitting inside the building.	The proposed rulemaking was mostly focused on the definition of transmission line, but Staff took the opportunity to move low stress, small

	customer meter set assembly or to the first fitting inside the wall of the customer's structure through which the service line enters, whichever is further upstream. Also included as a service line is the piping that extends from a transmission line which piping is 4 inches or less in diameter and operates at a hoop stress less than 20% of SMYS and serves a single customer.		diameter transmission lines serving customers under the definition of service line.
NYS Definition, circa 1986 (date TBD) NOTE: Nearly identical language, except lacking the repeated language italicized at right, was proposed by PSC Staff in April 1977	255.17(f) Service line means the piping in a distribution system that transports gas from a common source of supply to the outlet of the customer meter set assembly or the first fitting inside the wall of the customer's structure through which the service line enters, whichever is further upstream. Also included as a service line is the piping that extends from a transmission line *to the outlet of the customer meter set assembly or the first fitting inside the wall of the customer's structure through which the service lines enters, whichever is further upstream,* which piping is four inches or less in diameter and operates at a hoop stress of less than 20 percent of SMYS and serves a single building.	First fitting inside the building.	This definition was created in consultation with the NYS operators. It is consistent with the NTSB's conclusions and recommendation as well as the Staff's preamble to the August 1973 proposed rulemaking. It is also consistent with the comment in Federal amendment of May 1973, 192-13, insofar as building codes that include requirements for inside piping and gas utilization are the norm in NYS. For outside meter sets, this definition extends the service line beyond the meter outlet to the building wall, based on the presumption that utilities are in the best position to deal with buried piping. This exceeds the Federal coverage. On the other hand, for inside meters, it does conflict with the Part 192 definition, which extends to the outlet of an inside meter. Despite the conflict regarding inside meter sets, the NYS Commission approved the change. Enforcement of regulations dependent upon the definition of 'service line' in NYS was conducted using this definition, not the Federal definition. Federal support of the NYS safety program continued throughout this period, through 2014.