A Customer Guide to Natural Gas Service Installation
Consolidated Edison Company of New York (Con Edison)
Gas Service Requirements

Customers

Architects and Engineers

Plumbing Contractors

City and County Building Inspectors

Revised to September 2014

2014 Edition

(Supersedes All Previous Editions and Revisions of Gas Blue Book)

The Customer Guide to Natural Gas Service Installation is a Guide to Con Edison requirements and specifications for establishing gas service to new or remodeled applicant installations. In addition to the utility requirements, local or state officials may stipulate additional provisions for the installation of equipment and materials that are in their authorized areas of responsibility and jurisdiction. Should you have any questions regarding this guide, please contact your local Con Edison Customer Service Representative (see pg. 3). Applicant gas service and meter installation arrangements are subject to Con Edison’s review and approval. Applicants should submit a Work Request as soon in the planning process as possible.

DISCLAIMER: This is a guidance document for the convenience of the public. It does not substitute for any applicable laws, rules, codes or regulations, and information in it regarding procedures is subject to change without notice. It is the Licensed Plumbing Contractor’s responsibility to be aware of the code requirements for the area of the installation. Con Edison does not assume the obligation of enforcing State, City and Local Municipal code requirements.
A Customer Guide to Natural Gas Service Installation

Accidents involving dig-ins to underground facilities occur every year. They can damage equipment, and more importantly, sometimes lead to serious injuries, even death. We want to reduce the number of accidents so we joined a One-Call-System designed to make it safer for you to dig and work near underground facilities. The customer shall immediately notify Con Edison of any suspected leakage or escape of gas by calling the company’s toll-free hotline 1-800-75CONED or 1-800-752-6633.

**It’s the Law! Call before you dig!**
Much of the Con Edison equipment that transmits and delivers energy is under the ground, including more than 4,300 miles of natural gas pipelines. We work diligently to keep our systems safe and our excellent safety record demonstrates that commitment. New York State law requires anyone planning to dig or excavate to call a one-call center two to 10 days in advance. The one-call center will contact Con Edison on your behalf to obtain the necessary clearances, including the locations of all in-ground electrical and natural gas lines near your job site.

**UNDERGROUND UTILITIES CALL CENTERS**

NYC and WESTCHESTER: 811
NY Code 753 requires 2-10 working days notice.

**GAS EMERGENCIES CALL**
1-800-75-CONED (800-752-6633)

**HEARING IMPAIRED**
Toll-free, teletype line
(1-877-423-4372)
Billing and Service inquiries

We think you should know . . . . .
At Consolidated Edison Co., when we say: "We're here to help," we mean it! Our responsibility is to provide our gas customers with safe, reliable and cost effective service. Consolidated Edison’s prices for natural gas service are among the lowest in the State of New York. Before you start planning your project, please visit http://www.coned.com/es/ to create a Work Request using Con Edison’s Project Center application. Approximately one week after Con Edison receives a work request from your licensed contractor, you will receive correspondence indicating the name and contact number of the representative handling your case. You can also find this and other information pertaining to the status of your case on-line under Project Management and then selecting Project Status inquiry. Please check this site before calling a representative. Our representatives are responsible for specific geographic territories, or districts, a list of area representatives can be found on-line at http://www.coned.com/es/contact_us.asp. We will be happy to provide you with information and assistance, as well as ways to save you energy and money.

The Con Edison System
For more than 180 years, Consolidated Edison, Inc. has served the world’s most dynamic and demanding marketplace – metropolitan New York while maintaining a safe and reliable natural gas supply to more than 1.1 million gas customers. We have employees on duty 24 hours a day, 365 days a year to ensure the safety and reliability of our gas system. We work closely with multiple pipeline suppliers to ensure a consistent and reliable flow of gas into our distribution system.

This guide is intended to protect the mutual interest of our gas customer and Con Edison. Close attention and adherence to our Gas Specifications will ensure timely and efficient installation of a gas service that meets your requirements.
This guide will be revised and/or amended as required in keeping with developments and progress in the natural gas industry. The latest revision of this guide may be obtained at:

http://www.coned.com/es/resources.asp
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Quick Start

A. **Frequently Asked Questions**

1. Q - How can this guide help me?

   A - This guide, entitled “Natural Gas Service Customer Installation Guide”, is issued as a means of exchanging pertinent information between Consolidated Edison Co. (hereafter referred to as “Con Edison”) and its customers, architects, plumbers, engineers, builders, contractors and municipal inspectors.

2. Q - When should I apply for natural gas service?

   A – An application for any new, additional or an alteration to an existing service should be made as far in advance as possible to ensure adequate time for engineering and construction details to be arranged.

3. Q - Is service readily available?

   A – Prior to ordering equipment or starting pipe work, it is important that the customer contact Con Edison to make sure of the availability and proximity to existing facilities. The type and/or size of gas service requested by a customer may not be available at a specific location. Gas service may only be available through special negotiation and at the expense of the customer.

4. Q – How do I initiate having a gas service installed?


5. Q - When should I contact Dig Safe?

   A – By law, excavators and contractors working in the five boroughs of New York City must contact New York 811, at least 48 hours prior to beginning any mechanized digging or excavation work to ensure underground utility lines are marked. For safety reasons, homeowners are required to call as well. Markings are as follows:

   - **Red**: Electric
   - **Yellow**: Gas, Oil, Steam
   - **Orange**: Communications
   - **Blue**: Potable Water
   - **Purple**: Reclaimed Water
   - **Green**: Sewer/Drainage
   - **Pink**: Survey Marks
   - **White**: Proposed Excavation
6. Q - Where will my gas meter be located?

   A - Outdoor gas metering is a requirement on one (1), two (2), and three (3), family residential buildings.

7. Q - Do I have to physically protect the gas meter?

   A – Yes, gas meters, regulators and associated gas piping that may be subjected to vehicle damage must be adequately protected. Pipe posts or bollards shall be installed by the customer. Certain installations may require more substantial protection at the discretion of Con Edison.

8. Q - Why is odorant added to natural gas?

   A – Natural gas is flammable, colorless and odorless. To make its use safe, an odorant must be added so that it is easily detectable if a leak occurs. All gas transported in Con Edison’s distribution system is to be adequately odorized so as to render it readily detectible by the public and company employees with a normal sense of smell.

9. Q - What is the BTU rating of natural gas in the Con Edison distribution system?

   A – The natural gas heating value fluctuates as it passes through the distribution system. The heating value of gas can range from 0.95 MMBtu/MCF to 1.090 MMBtu/MCF.

   \[ \text{Btu Rating} = (0.950-1.050) \text{ MMBtu/MCF} \]
   \[ 1 \text{ MCF} \times \text{(Btu Rating)} = 1 \text{ MMBtu} \]
   \[ 1 \text{ MMBtu} / \text{(Btu Rating)} = 1 \text{ MCF} \]
   \[ 1 \text{ Therm} = (\text{MCF}) \times 10 \]

   However, if the Btu rating is assumed to be 1.0 MMBtu/MCF, the following ratios apply:

   1 CF = one cubic foot of gas = 1,000 Btu
   1 CFH = one cubic foot of gas per hour = 1,000 Btu/hour
   1 CCF = 100 CF = 100,000 Btu = 1 Therm
   1 MCF = 10 CCF = 1000 CF = 1,000,000 Btu = 10 Therms
   1 MMBtu = 1,000 Mbtu + 1 MCF = 1 DekaTherm = 10 Therms
B. **Customer Request For Gas Service – “Our Service to You”**

Customer requests for all new or additional gas service, as well as certain non-service work, will be made through our web-site [www.coned.com/es](http://www.coned.com/es) Project Center. See Work Request Process (pg.’s. 10 and 11).

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**Step - 1**

**Opening a Work Request (WR)**

When you are ready to begin the process for a new gas service or for a gas service information ruling please have a licensed professional installer as the referred contact agent for the work request.

1. Initiate Project Center [www.coned.com/es](http://www.coned.com/es) and e-file the work request (pg. 22).
2. Input the request for gas supplied to your end-use of equipment, example are, gas range, water heater, boiler or furnace and a back-up emergency generator. Gas consumption will be totaled; a customer representative will be assigned to the work request.
3. Energy Services will follow-up with 280 Acknowledgement letter confirming your request for the referenced location and an assigned ID No. to track the progress of the request.
4. Energy Services will arrange scheduled meetings with customer/customer’s agent to discuss the preliminary gas service layout while working with the customer to ensure the most economic means are addressed and that the project is satisfactory installed with no delays to service completion date. (pg. 23).
5. The company will determine the point of entry (POE) to the building. A preferred POE will be a special cost to the customer. The property line/building line and other easement issues will be discussed in Step- 3.
6. Tracking the job progress as a registered user (customers/contractor) can e-file all work request, quickly review status of current cases and receive email alerts when current milestones are reached or inquire of the status of the project.

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**Step - 2**

**Gas Service Ruling**

Con Edison Representative will initiate a case management number to the project and a case triage assessment will determine:

1. Review customer / contractor work requests.
2. Energy Services will determine gas service ruling up to 880 CFH, higher consumption will be routed to Gas Engineering for further analysis.
3. Gas Engineering to further determine the adequacy of existing services when new or additional loads are added to the customer premises.
4. Ruling returns from Gas Engineering and the existing gas service is not adequate, Energy Services will issue the necessary work orders to the construction department to excavate and install gas services according to approved gas engineering layouts.
5. Issue to the customer and contractor an approved service layout with all current company specifications, meter drawings, outlining company and customer responsibility.
6. Gas Cost Estimates are valid for sixty (60) days from the date of issuance (pg. 22).
Step - 3
Inspections & Gas Service Layout

Con Edison Representative, depending on the case request type actions may include:

1. Site verification that the wall sleeve has been installed in the building point of entry (pg. 36).
2. Discuss with the customer / contractor to obtain the necessary city certificates and affidavits related to the installation, pressure testing of customer piping or metering, to avoid a delay in a service completion date (pg.’s 24, 25).
3. To monitor the progress of work by customer / contractors through field visits, e-mail correspondences and Work Management Systems.
4. Track status updates, encourage customer to use Project Center to follow up on their case by contacting the assigned representative. To avoid delays by the company in order to meet customer service dates.
5. Site visits to verify status of customer’s project and or discuss case details/specifications with customer’s contractor.
6. The Gas Service Layout, the drawing which includes a sketch and description of company construction work to be performed.

Step - 4
Construction of Gas Service Installation

Con Edison Representative reviewing the customer’s project progress will determine when to release the requests to the appropriate groups for the construction of the facilities. It will include:

1. Construction Management – oversees third party contractors working for Con Edison on the installation of company owned facilities.
3. Customer Operations to establish the application of the customer service gas rate account and to collect payment agreement for deposits, easements and the cost of the gas service work.
4. Energy Services – Customer’s licensed contractor has completed the applicable piping installation while fulfilling the requirements of all city, municipal and company requirements for natural gas service installation.
5. Customer to contact Energy Services representative to schedule final inspection (pg.’s 80 – 83).

Step - 5
Final Inspection and Gas Meter Turn-On

Customer on completion of his/her work request will contact the assigned Con Edison Representative for the final inspection and the release of the gas meter:

1. Work order will be issued for a gas meter by Energy Services sign-off of a complete final inspection checklist.
2. The gas meter is the property of Con Edison and the size and type selected are based on the gas service ruling for residential and commercial dwellings.
3. Con Edison Meter Bureau will deliver, set meters and turn on the gas service.

Energy Services Representative will:

1. Review the case work request; verify the accuracy of the customer’s account and billing as well as the documentation of any revenue associated with the project (pg. 23).
2. Once all the case task/steps have been verified the case is closed out.
C. **Gas Work Request Process**

1. **Customer/Contractor initiates a job via Project Center**
   - http://coned.com/es
   - Contact Information
   - Load Letter

2. **Customer/Contractor receives acknowledgement letter from Con Edison**

3. **Con Edison Performed Service Determination, Company & Customer Responsibility / cost**

4. **Initial Field Visit**

5. **Additional information**

6. **Customer requests Final Inspection from Con Edison**

7. **Customer provides to Con Edison: Deposit/Service Application, and Certificate of Municipal Inspection**
   - Customer/Contractor starts customer work

8. **Final Inspection meets all items**
   - Con Edison makes permanent connection, establishes rates and energizes service

9. **Failed Final Inspection**
   - Customer/Contractor to correct failed items at customer cost
D. **Standard Service Layouts**

The Standard Service Layouts found on the following pages, reflect generally accepted designs which may be used to plan work and prepare Contractor Work Requests and reference the associated Gas Specification’s required. Please note that these Standard Service Layouts are provided for reference purposes only. **A Service Request must be initiated through Con Edison’s Project Center Portal before work is commenced to ensure the sizing and timely installation of the required gas service.** Gas Standard Service Layouts for new 1, 2 and 3 family residential homes are found on pages 13 - 16 with Standard Service Layouts for new multi-dwelling residential (4 or more dwelling units), commercial and industrial buildings are provided on pages 17 - 20. In instances where Con Edison is the service provider of both new gas and electric service, it is the responsibility of the Customer and/or the Customer’s Contractor to plan his point of service terminations (POE’s) so that the company’s natural gas and underground electric service may be installed in a common trench within the franchised area. In order to provide customer service, access to equipment and cost savings to our Customer’s the Company determines where practical, the location of gas meters and regulators. The Customer and/or the Customer’s Contractor is required to obtain information on the space requirements for gas service and associated metering from Con Edison while in the project planning stage prior to commencement of construction. All work shall be done in accordance with Con Edison’s requirements with the customer obtaining all required approvals from local authorities having jurisdiction prior to a gas service installation. Con Edison requires a minimum of 48 hours-notice to arrange for a final inspection with no charge to the customer or contractor for final inspection of service. The following letter code designations are found on the Standard Service Layouts:

- CL – Curb Line
- PL – Property Line
- BL – Building Line
- POE – Point of Entry
- CV – Curb Valve
- HOS – Head of Service
- M – Gas Meter
- R – Regulator
# RESIDENTIAL – ONE, TWO and THREE FAMILY

## GAS SERVICE CHARACTERISTICS

**Steel or Plastic (Low Pressure / Outside)**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Spec No.(See pg.’s 62-63)</th>
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<td>3</td>
<td>Bend – Anodeless Riser</td>
<td>Table 21</td>
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<tr>
<td>4</td>
<td>Plug Valve for Service Head Installation</td>
<td>Table - 1</td>
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<tr>
<td>5</td>
<td>Supporting Gas Service Regulator and Meters</td>
<td>G-695</td>
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<tr>
<td>6</td>
<td>Installation of Meter Piping for Class 250TC to Class 1000TC Diaphragm Gas Meters – Outdoors</td>
<td>EO – 16585 EO – 16585-A</td>
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**Note:** Standard Service Layout is provided for reference purposes only. A Work Request must be initiated through Con Edison’s Project Center Web Portal before work is commenced to ensure the sizing and timely installation of the required gas service.
RESIDENTIAL – ONE, TWO and THREE FAMILY
GAS SERVICE CHARACTERISTICS
Steel or Plastic (Low Pressure / Inside)

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<td>3</td>
<td>Pipe Type Saddle Support for Gas Regulator Installations</td>
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<td>4</td>
<td>Plug Valve for Service Head Installation</td>
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<td>Meters – Outdoors</td>
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<td>7</td>
<td>Regulator Vent Installation</td>
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<td>8</td>
<td>Sealing the Annular Space btw. Gas Pipe &amp; Wall</td>
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LEGEND
CL - Curb Line
PL - Property Line
EL - Building Line
PDE - Point of Entry
CV - Curb Valve
HOS - Head of Service
M - Gas Meter
R - Regulator

GAS MAIN (HIGH PRESSURE)

Note: Standard Service Layout is provided for reference purposes only. A Work Request must be initiated through Con Edision’s Project Center Web Portal before work is commenced to ensure the sizing and timely installation of the required gas service.
MULTI-DWELLING RESIDENTIAL (4 or more dwelling units),
COMMERCIAL AND INDUSTRIAL
GAS SERVICE CHARACTERISTICS
Steel or Plastic (Low Pressure / Outside)

Final Gas Meter Sizing / Specification to be determined by Gas Operations

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<td>6</td>
<td>Installation of 2 to 6 Unit Prefabricated Meter Set for Outdoor Class 250TC Meters</td>
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<td>7</td>
<td>Installation of Meter Piping for Class 3000R-TC to Class 23,000R-TC Rotary Meters - Outdoors</td>
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<td>8</td>
<td>Installation of Gas Turbine Meter</td>
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<td>Installation of Multiple Class 250TC Gas Meters - Indoors</td>
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LEGEND
CL - Curb Line
PL - Property Line
BL - Building Line
POE - Point of Entry
CV - Curb Valve
HQS - Head of Service
M - Gas Meter
R - Regulator

GAS MAIN (LOW PRESSURE)

Note: Standard Service Layout is provided for reference purposes only. A Work Request must be initiated through Con Edison’s Project Center Web Portal before work is commenced to ensure the sizing and timely installation of the required gas service.
# A Customer Guide to Natural Gas Service Installation

**Consolidated Edison Co. Inc.**

## MULTI-DWELLING RESIDENTIAL (4 or more dwelling units),
**COMMERCIAL AND INDUSTRIAL GAS SERVICE CHARACTERISTICS**
Steel or Plastic (High Pressure / Outside)

**Final Gas Meter Sizing / Specification to be determined by Gas Operations**

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<td>Installation of Parallel Fisher 2&quot;, 3&quot; &amp; 4&quot; EZR and 1098 Regulators w/ Turbine Meter – Indoors and Outdoors 15,000CFH to 150,000CFH</td>
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<td>Pipe Type Saddle Support for Gas Regulator Installations</td>
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### LEGEND
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**Note:** Standard Service Layout is provided for reference purposes only. A Work Request must be initiated through Con Edison’s Project Center Web Portal before work is commenced to ensure the sizing and timely installation of the required gas service.
### MULTI-DWELLING RESIDENTIAL (4 or more dwelling units), COMMERCIAL AND INDUSTRIAL

#### GAS SERVICE CHARACTERISTICS
Steel or Plastic (High Pressure / Inside)

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**Note:** Standard Service Layout is provided for reference purposes only. A Work Request must be initiated through Con Edison’s Project Center Web Portal before work is commenced to ensure the sizing and timely installation of the required gas service.
GAS SERVICE REQUIRED btw. P/L and BUILDING
RESIDENTIAL-ONE, TWO AND THREE FAMILY AND
MULTI-DWELLING RESIDENTIAL (4 or more dwelling units),
COMMERCIAL AND INDUSTRIAL
GAS SERVICE CHARACTERISTICS

Note: Gas service pipe required behind a customer’s property line (P/L) can be installed by Con Edison under Accommodation Billing Rates provided the customer excavates backfills and restores the trench in accordance with Con Ed Specifications.

- Refer to the Standard Service Layout (pg.’s 13-20) for the particular type layout for the gas service installation type.

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SECTION 1 - General Information

A. **Purpose**

The information in this handbook provides a basic and uniform set of specifications and guidelines covering the installation of gas service for Con Edison’s customers. The codes we have referenced and the information provided in this booklet in no sense relieves the customer of the responsibility to install gas piping and appliances in accordance with the latest revisions of the applicable governing codes that are listed in Section 2. It is the Licensed Plumbing Contractor’s responsibility to be aware of the code requirements for the area of the installation. Any change or modification to our Gas Service Layout(s) or equipment type including location and point of entry (POE) requires advanced approval from Con Edison. Our Gas Specifications have been prepared to assure compliance with all the various codes and safety requirements. Changing anything without prior approval from Con Edison, will result in the job not being accepted, requiring a contractor to make corrections causing potential delays. Corrections to piping configurations will incur an additional expense to the customer and/or licensed contractor. Altering a gas specification creates the potential for a code or safety violation. The customer should always feel free to consult a company Representative regarding safe practices and practical applications of gas installation and equipment connection.

Representatives are available to discuss design details while in the planning stage.

Con Edison does not assume the obligation of enforcing State, City and Local Municipal code requirements.

B. **Scope**

The information and specifications found in this handbook relate to the piping and equipment necessary for connecting the customer’s appliances to the company’s gas distribution piping as well as other subjects of mutual interest to developers, customers, architects, engineers, and licensed plumbing contractors. This handbook is intended to be a guideline and is not a complete set of rules governing natural gas installations.

C. **Application for Service**

Con Edison requires a company application for new or additional gas service requests. To ensure a timely service connection your application should be submitted well in advance of the date service is required. All customers are required to consult with the company regarding service availability before the completion of plans, purchase any equipment and before any construction commences on a facility that you plan to connect to the company’s gas distribution system. An application for new and additional natural gas service may be made through Con Edison’s customer Project Center portal via the intranet. The portal can be accessed through Con Edison’s Energy Services Resource Web site using at www.coned.com/es/. Submitting an application for service using the Project Center application ensures an immediate response along with confirmation the application was received. As per the PSC Code, natural gas is delivered at a minimum of four inches (4") of water column (WC) at the head of service. The installation of appliances and/or equipment requiring more than 4-inches WC must NOT be installed until evaluated and approved in advance by Gas Engineering. Request for approval should be submitted through the Commercial Service Representative. The customer or his/her contractor must furnish Con Edison with information on the proposed gas service installation or any increase in required gas load. Con Edison provides Licensed Plumbing Contractor Work Request forms for convenience.

Con Edison Gas Cost Estimates are valid six (6) months from the date of issuance.
D. **Rates & Terms of Service**
The rates and terms of service under which Con Edison provides gas service are set forth in schedules (also referred to as “tariffs”) filed with the New York State Public Service Commission (“NYPSC”), which regulates the state’s electric, gas and steam utilities and reviews and approves their rates and terms of service. The Company's schedules on file with the NYPSC – including current, pending, and canceled or superseded tariff leaves - can be found on the NYPSC's website located at [http://www.dps.ny.gov/](http://www.dps.ny.gov/).

The rates and terms of service shown on the Con Edison website are provided for your convenience and do not replace or provide an authorized substitute for the official schedules (including the rates and terms of service) and the Statements of rate adjustments on file with the NYPSC. The Company does not guarantee that the Summaries available on this website reflect the rates and adjustments contained on the Statements filed with the NYPSC and in effect or that the tariff leaves, Statements, and Summaries shown on this website reflect the most recent filings made with the NYPSC.

Note: The leaves (pages) in tariffs found on the Company’s website may have headers and footers that differ from the official leaves on file with the NYPSC. The NYPSC marks its official leaves with receipt and actual effective date “stamps” and with information on cancelled or superseded leaves that may not be shown on the Company’s leaves found at [www.coned.com/rates/gas.asp](http://www.coned.com/rates/gas.asp)

E. **Identification of Con Edison Employees**
In an effort to protect customers from unauthorized persons representing themselves as Con Edison company employees, each of our employees has an identification card that will be shown upon request.

F. **Access to a Customer’s Premise**
The Customer shall not permit access by anyone, except authorized employees of the Company, to the meters, equipment or any other property of the Company, and shall not interfere or permit interference with the same; and the Customer shall be responsible for their safe keeping on the Customer's premises. The Company's duly authorized representatives shall have the right of access to the premises of the Customer and to all of the Company's property thereon at all reasonable times for the purposes of reading and testing meters, inspecting equipment used in connection with its service, installing, inspecting, maintaining and replacing, where necessary, its load testing equipment, removing its property.

G. **Customer Cooperation**
It is the desire of Con Edison to provide and maintain dependable, safe and satisfactory natural gas service in a courteous and efficient manner. Cooperation from our customer’s and/or their agents is always necessary to ensure we can evaluate and process each gas service request in a timely manner.

H. **Information Inquiries**
Con Edison will assist the customer and/or his/her contractor with any questions or concerns regarding the physical application of our specification requirements. Company Service Representatives are available to receive inquires and process requests for information regarding the application of these gas specifications.

I. **Gas Service Layouts**
Individual detailed Gas Service Layouts will be provided to the Customer’s Contractor on all applications for natural gas service. A number of Standard Service Layouts are found in the Quick Start Section and reflect generally accepted designs which may be used to plan work, prepare Contractor Work Requests and reference the associated Gas Specifications required.
J. **Responsibilities**  
The Customer, his/her Agent and/or Contractor bears the responsibility of maintaining all gas piping and associated equipment in a safe operating condition.

K. **Customer Pipe Size and Adequacy**  
Proper sizing of customer pipe and ensuring adequacy for current and future use is the sole responsibility of the customer. The customer’s Engineer or Licensed Plumbing Contractor should assist the customer in determining that the natural gas piping installation will have adequate capacity for future use.

L. **Un-Metered Connection (Flat)**  
Un-Metered (Flat) connections are prohibited and can result in a termination of service.

M. **Piping Certification and Permit(s)**  
Gas service installations require municipal certification that the gas piping system has been pressure tested and permit documentation that the building’s gas service is authorized for fuel supply. It is the owner /contractor’s responsibility to make the appropriate arrangements and notify Con Edison when such action has been acceptable for gas turn-on appointment. In order to avoid a delay to the gas service completion date, please obtain and conform to the following:

a) Installation must comply with the current applicable Con Edison Specifications.

b) The following are examples of the service work requiring city and local certification permits:

1. **In New York City**
   - **Distribution Piping** - Gas Service Authorization: NYC-Buildings Information System (BIS) aka “Blue Card”
   
   - **Meter Piping** – A NYC Meter Piping Pressure Test Verification Affidavit will be required for the following:
     
     i. The installation of any new, alteration of existing, or complete replacement of gas piping.

     ii. Installation of new gas appliances and the replacement of a gas water heater or a gas fired boiler with the capacity of 350,000 BTU or less where the existing gas appliance gas wing valve is not moved and no gas piping is required. No gas permit is needed. A written report is due to the DOB in 30 days.

     iii. Restoration of service discontinued (cut-off) due to a fire or other conditions or where all the gas service to a building has ceased for over six (6) months.

   The NYC Gas Meter Pressure Test Verification Affidavit form can be found on the Con Edison Energy Services Resource web-site located at [http://www.coned.com/es/resources.asp](http://www.coned.com/es/resources.asp) or refer to Exhibit - B (pg. 74).

2. **In Westchester County**
   - **Distribution Piping** – Gas Service Authorization. For Municipalities that do not issue formal Gas Blue Cards, a Westchester County Distribution Piping Pressure Test Verification Affidavit will be substituted.

   - **Meter Piping** – Requires a Westchester County Gas Meter Piping Pressure Test Verification Affidavit.
The Westchester County Pressure Test Verification Affidavit form can be found on the Con Edison Energy Services Resource web-site located at http://www.coned.com/es/resources.asp or refer to Exhibit - C (pg. 75).

c) An affidavit is required for the gas meter piping for all installations excluding 1, 2 and 3 family residential homes where gas meters are installed outdoors.

d) Con Edison requires a statement from New York City and Westchester County for those customers performing oil or electric gas conversions for home heating.

e) Con Edison requires a written document of pressure test certification for any new piping or replacement piping that is installed to a newly installed gas end-use piece of equipment.

f) Restoration of a gas service discontinued (Cut-Off) due to a fire or other conditions or in instances where the gas service to a building has ceased for over six (6) months.

N. Special Services Provided at Cost

Upon the Customer's request, the Company will perform the following special services for a Customer and will charge the Customer upon the basis of cost to the Company as defined "Definition of Cost":

1. Change the point of service termination or location of the service pipe.

2. Relocate Company street facilities to accommodate Customers.

3. Remove and relocate Company facilities when a street is to become private property.

4. Make gas main extensions in private roads or streets of real estate developments under a refunding agreement based on use of service, provided that the Customer furnishes evidence of intent, satisfactory to the Company, that the Customer will cede or otherwise transfer said roads or streets for public street purposes to the municipal or other governmental authority having jurisdiction, subject to "Installation of Mains and Services" in the current Gas Tariff;

5. Inspect or clear drips on the service pipe beyond the point of service termination.

6. Install service lines, service connections, and appurtenant facilities in addition to those required under customer entitlements.

7. Change an existing customer's service configuration from multiple-meter to a single-meter configuration, including all costs associated with removing and upgrading meter(s).

8. Provide a meter or auxiliary metering equipment not normally furnished by the Company and not required for billing the customer's service, including meter upgrades and furnishing of equipment that permits remote reading of the meter.

9. Bottled gas when used to maintain gas integrity when a gas service is being upgraded per customer request.

Definition of Cost

The cost to be charged for the furnishing of the special services listed in "Special Services at Cost" consists of the following elements of cost where applicable.

a) Labor of the Company organization unit involved at average payroll rate plus related expenses and indirect costs. Overtime and Sunday rates will be charged where applicable;
b) Material at the average actual storeroom price plus 14.5% for handling cost (Sales Taxes to be added where applicable);

c) Use of transportation vehicles at rates covering operation, maintenance, carrying charges and taxes;

d) Contract work and sundry vendors' bills at invoice cost, including any taxes contained therein;

e) Use of large tools and equipment at rates covering operation, maintenance and carrying charges;

f) Corporate overhead for engineering, drafting, administration and inspection at 20% of the foregoing items, provided however, that when the labor cost for engineering or drafting cost is separately stated, corporate overhead for administration and inspection at 4%;

g) Salvage credit at storeroom price of materials reduced by salvaging cost, or at junk value.

The above-described costs, where applicable, shall be increased to reflect the percentage Increase in Rates and Charges, as per the current Gas Tariff.

O. Flat Rate Policy (Maintain integrity of gas piping during building swing-over)
Upon the Customer's request, the Company will supply temporary gas, to maintain integrity to the building's gas piping to enable the customer's contractor to perform a swing over from the old service to the new service (not-applicable to residential homes). This work will be charged to the customer at a flat-rate price as an accommodation cost and is due at the time the Final Inspection is scheduled. The customer is advised to discuss all alternatives with their engineer or contractor and with the Licensed Master Plumber performing the gas piping work.

P. Termination and Reconnection of Gas Service
The following are situations where Con Edison MUST BE notified to SHUT-OFF the gas service prior to a licensed plumber performing work;

a) Anytime that a curb valve needs to be operated.

b) Anytime a service head valve needs to be operated.

c) Anytime a service head valve on an elevated pressure (greater than inches of WC) service needs to be operated.
SECTION 2 – Gas Services

A. General Information:

1. The gas service will be installed by Con Edison and/or its authorized contractor.

2. No person, unless in the employ of the company, shall repair, alter, open or make connections to the service pipe or do any work on any parts of Con Edison's gas supply system.

3. Con Edison reserves the right to determine the location and type of any all service pipes to be installed.

4. Gas Service will be supplied to each building or premise through a single service pipe. Any request for additional service pipes will be communicated to the assigned Customer Service Representative. Additional service must be pre-approved and are subject to Excess Distribution Facility (EDF) charges to be paid by the customer. Excess facilities will be provided at the discretion of Gas Engineering.

5. A Customer's request to supply a natural gas-fired generator installed to provide required emergency power in accordance with the NYC Building Code requires a separate outside gas cut-off valve that is separate from the existing service to the building. This additional gas service is subject to Excess Distribution Facility (EDF) charges to be paid by the customer.

6. Gas services are to be properly sleeved and vented per EO-4890 titled “Service Pipe / Tubing and Service Sleeve through Vault, Open Areaway, Open Area under Stairs, Under Enclosed Area and Vaulted Basement”. If the customer elects to build and/or add an extension over an existing gas service, the customer will bear the full cost to sleeve and vent the existing gas service or the full cost to off-set same.

7. Metering equipment layout(s) and service installation(s) for commercial and industrial installations may vary. Gas Measurement Department Standards and Specifications will be used as a guide in final layout and installation. Refer to Appendix.

8. Any change requested by the customer in the point of service termination or location of the service pipe, provided such change is approved by Con Edison, will be made at the sole expense of the customer. The entire estimated cost must be paid in full prior to service installation.

9. Customer entitlement for gas service is explained in its entirety Gas Rates and Tariffs General Rules III 3. (A) (B) “Installation of mains and Services” Leaf 28 to 32. Special Service Performed by the Company for Customers at a Charge is explained in Gas Rates and Tariffs General Rules IV (1) (2) (3) Cost and Special Services. A brief summary of cost responsibility for heating and non-heating customers is listed below:

I. Residential Applicant – Non-Heating

1, 2 and 3 family detached, semi-attached or attached homes containing less than four (4) dwelling units.

The material and installation costs relating to up to 100 feet of any combination of main and service line measured from the centerline of the public right-of-way (or the main if it is closer to the customer and development will be limited to one side of the right-of-way for at least 10 years), service connections and appurtenant facilities, but not less than 100 feet of main (if necessary) plus the length of service line necessary to reach the edge of the public right-of-way.
II. Residential Applicant – Heating
The material and installation costs relating to:

a) Up to 100 feet of main and appurtenant facilities; and

b) Up to 100 feet of service line measured from the centerline of the public right-of-way (or the main if it is closer to the customer and development will be limited to one side of the right-of-way for at least 10 years), service connections and appurtenant facilities; but not less than the length of service line necessary to reach the edge of the public right-of-way.

III. Non-Residential Applicant
If an applicant which will be a firm, non-dual-fuel customer requests service other than residential service, the material and installation costs relating to:

a) Up to 100 feet of main and appurtenant facilities; and

b) Service line, service connections and appurtenant facilities located in the public right-of-way;

IV. Charges for Additional Facilities
Refer Rates and Tariffs General Rules III 3. (C) “Installation of Mains and Services” Leaf 32 to 36 for instances where Customer Cost and/or Surcharge is applicable, i.e., main reinforcement, extension, firm dual-fuel capability (pg. 25).

V. Special Service Performed by the Company for Customers at a Charge
Refer to Section 1 for a list of task that Con Edison will charge accommodation cost of the project gas service installation, the definition of cost and the following elements of cost where applicable (pg. 25).

10. If required by the company, each applicant or customer is responsible to execute and deliver to Con Edison free from cost, satisfactory permanent easements or rights-of-way to enable and permit Con Edison to provide gas service.

B. Conditions for Installing Gas Service
To provide prompt, safe and adequate gas service to our customers, Con Edison requires that the following conditions be met by the customer or the customer’s agents:

1. The areas in which gas services are to be located shall be easily accessible and allow for safe working conditions. Dirt piles, debris, construction materials etc. are to be removed from the proposed gas service route and service trench. Trenches containing water must be pumped out by the customer before installation of the gas service pipe.

2. Building exterior should be complete with siding, brick etc., installed at the meter location prior to the installation of a gas service.

3. Con Edison Point of Service Termination:
Con Edison will determine the point-of-service termination.

a) Residential - Outdoor Meter(s)

- Above Ground Entry - the point of service termination of Con Edison’s service pipe will be the outlet side of the meter when the service enters the building above ground.
• **Below Ground Entry** - the point of service termination of Con Edison's service pipe will be the outside of the building wall when the service enters the building below ground.

b) **Residential - Indoor Meter(s)**
   For buildings with basements, the point-of-service termination of Con Edison’s service pipe will be the first fitting just inside the foundation wall. However, if the building does not have a basement, Con Edison will install its service to the sleeved elbow unit installed by the customer and make the final connection outside the building wall or foundation.

c) **Multi-Dwelling Residential, Commercial and Industrial**
   The point of service termination of Con Edison’s service pipe will be the property line or suitable sub-sidewalk space. Where a basement wall is located on the property line, Con Edison will install the service pipe and service head valve. The customer will supply and install the wall sleeve.

C. **Customer Pipe Size**
   Acceptable methods of calculating pressure loss are outlined in NYC or National Fuel Gas Code as appropriate.

   • Any meter piping in excess of 3 feet between the Con Edison head of service valve and Con Edison regulator/meter installation shall not have a pressure loss (drop) of more than 0.1” WC. This piping is in excess of the piping shown in Con Edison drawings referred to in this installation guide.

   • Customer piping systems shall be of such size and so installed as to provide a supply of gas sufficient to meet the maximum demand without undue loss of pressure between the Con Edison meter outlet and the customer’s equipment. Normal delivery pressures, the pressure loss (drop) shall not be more than 0.3” WC

   • The company has the right to refuse service and make the customer change out the piping at customer / plumber’s expense when the piping size is found to be inadequately sized.

D. **Head of Service Valve (HOS) Requirements**

   1. **New Service Installation** - Where the service head valve is located 6-feet or more above floor level, a chain operated valve or access platform shall be installed.

   2. **Upgrading an Gas Existing Gas Services** - A gas service head valve must be installed (where none exists) or replaced (where the existing valve is not a Con Edison approved type) when the following conditions exist:
      
      • The gas service is SHUT-OFF upstream of the service head valve to perform work.

      • The gas service head valve itself is being worked on.

E. **Trenching and Backfilling:**
   All piping will be installed as follows:

   a) The minimum cover over the top of the service shall be 24-inches and maximum 36-inches. Variations to the minimum or maximum cover require prior approval by Gas Engineering. In all locations where the minimum cover of 24-inches cannot be maintained, adequate steel protection plating must be provided to prevent damage to the service pipe in accordance with EO-6799-C titled “Protective Covers for Gas Main and Service Installations”.
b) Service lines are to be installed perpendicular to the gas main.

c) All customer service lines are to be installed 1-foot past property line to meet Con Edison service line and shall be installed with a clearance of at least 4-inches from any subsurface structure. A minimum clearance of 2-inches is acceptable if the service line is properly protected by phenolic board from the other structure.

d) The service pipe shall be laid in a trench that is properly prepared to provide suitable bedding for support and to prevent shifting, sagging or damage to the pipe or coatings in accordance with Gas Specification EO-1181 Titled “Specification for Backfilling of Trench & Small Openings”.

e) Warning Tape must be installed at a minimum of 1-foot (1'-0") above the top of the service pipe where clearance permits.

f) Prior to backfilling, all field coating and repairs to damaged steel piping coating shall be made in accordance with Con Edison Specification G-8209 titled “General Specifications for the Backfilling of Trench and Small Openings”.

g) Backfill shall be sand or clean earth, free of stones, cinders, vegetation and other debris in accordance with Con Edison Specification EO-8085 titled “General Backfill and Bedding Material for Excavation”.

h) A detailed As-Constructed drawing showing off-sets, protection plates and distances from above-ground structures shall be submitted.

i) For sample trench widths see table below.  See Gas Reference Drawing No. 309495.

<table>
<thead>
<tr>
<th>Size of Service</th>
<th>Trench Width</th>
<th>Trench Depth (Service)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1&quot; - Inch</td>
<td>0'-10&quot;</td>
<td>2'-6&quot;</td>
</tr>
<tr>
<td>1-3/4&quot; - Inch</td>
<td>0'-10&quot;</td>
<td>2'-6&quot;</td>
</tr>
<tr>
<td>1-1/2&quot; - Inch</td>
<td>0'-10&quot;</td>
<td>2'-6&quot;</td>
</tr>
<tr>
<td>2&quot; - Inch</td>
<td>1'-0&quot;</td>
<td>2'-8&quot;</td>
</tr>
<tr>
<td>3&quot; - Inch</td>
<td>1'-0&quot;</td>
<td>2'-8&quot;</td>
</tr>
<tr>
<td>4&quot; - Inch</td>
<td>1'-2&quot;</td>
<td>2'-10&quot;</td>
</tr>
<tr>
<td>6&quot; - Inch</td>
<td>1'-4&quot;</td>
<td>3'-0&quot;</td>
</tr>
<tr>
<td>8&quot; - Inch</td>
<td>1'-6&quot;</td>
<td>3'-2&quot;</td>
</tr>
</tbody>
</table>

F. Plastic Service Pipe:  
When plastic service pipe is required, the service pipe will be installed as follows:

a) On outdoor meter sets for multi-dwelling residential, commercial and industrial customers, install an approved anodeless meter riser and support bracket. If anodeless meter riser is not available in the required size, install a standard steel coated riser with magnesium anode.

b) Plastic service pipe shall terminate at a transition fitting or service head adapter and shall not extend >3" with building.

c) Plastic pipe is to be installed in a manner to allow for thermal expansion and contraction.

d) Plastic pipe joints shall be made only by qualified installers approved as per Con Edison procedures. Third-Party contractor on installing and fabricating plastic pipe connections shall be qualified by Con Edison TLC certification. The certification card shall be available for company inspection on-site acceptance prior to backfilling.

e) Con Edison shall inspect plastic service pipe prior to backfill to ensure no dents and/or gauges >10% of pipe wall thickness.
f) Install a #14 gage, red, insulated copper tracer wire from 1’ above grade, taped to the meter riser and along entire continuous length of the service pipe to a point 1’ beyond the installation. The tracer wire must not be electrically connected (bonded) to any metallic pipe.

g) Ensure plastic pipe is not subjected to stresses caused by short bends or deflections. The minimum bending radius is determined by the pipe diameter. See Chart Below:

<table>
<thead>
<tr>
<th>Plastic Pipe Size</th>
<th>Minimum Bending Radius</th>
</tr>
</thead>
<tbody>
<tr>
<td>½” – Inch</td>
<td>1 ½ - Feet</td>
</tr>
<tr>
<td>1 – Inch</td>
<td>3 - Feet</td>
</tr>
<tr>
<td>1 ¼ - Inches</td>
<td>4 - Feet</td>
</tr>
</tbody>
</table>

G. **Steel Service Pipe:**
When steel service pipe is required, the service pipe will be installed as follows;

a) Buried steel service pipe is to be joined with non-insulating compression-type couplings or by welding. **Buried threaded joints or flanged joints are not permitted.**

b) Compression couplings may be used to join exposed meter piping as depicted on Gas Meter Piping drawings. Refer to applicable drawings in Reference Section. All meter piping must be properly supported and a-fixed to building wall, floor or ceiling.

c) Care should be taken in the use and application of pipe joint compound or Teflon™ tape. The compound shall only be applied to the male threaded end of the fitting. Teflon™ tape may not be used on pipe joints on the inlet side of a gas rotary meter.

d) Lamp wick or cloth thread intended for the use as a seal in the root of threaded joints is not permitted.

e) Changes in the direction of the gas service pipe may be made through the use of joint fittings and/or factory bends.

H. **Copper Service Pipe:**
When copper tubing service pipe is required, the piping will be installed as follows;

a) Copper tubing shall be joined only by personnel, who are “Operator Qualified” in joining copper tubing by approved mechanical fittings.

b) Brass couplings shall only be used to connect a copper to copper connection. They shall not be used for a plastic to plastic connection or a plastic to copper connection.

c) All direct buried copper tubing and plastic tubing in CTS sizes (except for 1/2” CTS) shall have a protective sleeve installed (around the tubing) to protect the tubing from damage.

- Plastic tubing (in CTS sizes) used for insertion shall only be Performance Pipe 8100 or 8300 or JM Eagle (US Poly) UAC3700 tubing.
- Protective bushings must be installed on the ends of the existing service pipe (after the pipe is cut, removed and reamed) and prior to insertion to protect the plastic or copper from damage.

d) The leading open end of the plastic or copper must be sealed prior to insertion.

e) The plastic or copper shall be inspected before and after insertion to detect any dents, gouges, grooves, etc.
f) Discrepancy found during inspection will be addressed and shall comply with gas installation procedure.

I. **Corrugated Stainless Steel Tubing (CSST) Service Pipe:**

1. **New York City:**
   a) Corrugated Stainless Steel Piping (CSST) installation is **not permitted** on distribution piping in New York City.

2. **Westchester County:**
   a) Corrugated Stainless Steel Piping (CSST) installation shall be in accordance with the requirements set forth in the Fuel Gas Code of New York State.
   b) In municipalities in Westchester that allow CSST, all manufacturers’ installation guidelines and authorities having jurisdiction (AHJ) requirements shall be followed.

J. **Welding:**

All welders working on a Customer’s service, meter or distribution piping must be qualified in accordance with the requirements of the local authorities having jurisdiction.

A. **New York City:**

a) Welders installing natural gas service piping within buildings at any pressure shall be qualified for welds on all pipe sizes, wall thickness and in all positions in accordance with current ASME Section IX Boiler and Vessel Pressure Code 1986. In addition, the welder who performs the weld must be tested on specific procedure and listed on NYC form QW-484 providing proof of validation.

b) Annual re-qualification is required if the welder does not have continuity or active work every Six (6)-months.

c) Agency issuing welder qualifications must be approved by the NYC Department of Buildings or local Municipality. The individual performing the inspection of gas service pipe welds must be a Certified Welding Inspector (CWI) having minimum radiography qualifications of Level II in accordance with the American Society of Non-Destructive Testing Recommended Practice Document No. SNT-TC-1A, Supplement-A.

d) Copies of the certified welder reports shall be maintained by the welding contractor and shall be made available to the NYC Department of Buildings or local Municipality upon request. Welder must be in directly employed by licensed plumber.

e) **New York City Fuel Gas Code – Section 403.1.1**

<table>
<thead>
<tr>
<th>PSIG</th>
<th>Gas Pipe Installation</th>
</tr>
</thead>
<tbody>
<tr>
<td>In Excess of $\frac{1}{2}$ psig - 3 psig</td>
<td>Gas distribution pipe operating size 4-inch or larger must be welded.</td>
</tr>
<tr>
<td>In Excess of 3 psig</td>
<td>All gas distribution pipes operating above 3 psig must be welded.</td>
</tr>
<tr>
<td>All welding of gas distribution pipe</td>
<td>is subject to DOB special inspection (Section.406)</td>
</tr>
<tr>
<td>All piping 4-Inch or larger operating in excess of 3 psig</td>
<td>must be <strong>butt-welded</strong>, DOB special inspection and radio-graphed (See Note below).</td>
</tr>
<tr>
<td>Threaded piping may be used up to 4-inch at pressure no greater than $\frac{1}{2}$ psig.</td>
<td></td>
</tr>
</tbody>
</table>

B. **Westchester County:**

a) Welders are required to follow the New York State Fuel Gas Code….cont.
b) The Customer, its Agent or licensed Plumbing Contractor must submit an affidavit showing compliance with the local building codes in the Municipality where work was performed. The Company’s “Welder Affidavit” form can be found on our Energy Services Resource web-site located at http://www.coned.com/es/resources.asp or refer to Exhibit - E (pg. 77).

**Note:** All gas meter piping that is butt-welded (not Distribution Piping) must be radiographed, regardless of whether the piping is inside or outside the building property line. Con Edison follows the Federal and State Code requirement for meter piping ending at the point of service determination for utility distribution companies. Gas distribution piping after the meter outlet where required must comply with the local municipal standard.

K. **Cathodic Protection / Underground Steel Piping:**
All buried steel piping shall be cathodically protected as per the following:

a) All buried steel pipe requires factory applied coating in accordance with **Gas Specification G-8062** titled “Extruded Polyolefin Coating on Steel Gas Pipe”.

b) Field installed joints and fittings will be coated in accordance with **Gas Specification G-8209** titled “Field Coating of Steel Gas Pipe and Fittings Installed Underground and in Subsurface Structures”.

c) The new steel service pipe must have an insulating joint (IJ) installed when a connection to existing steel or copper tubing is required.

d) An Insulating Joint (IJ) will be installed under the following conditions:
   i. **Low Pressure Service** – After the Service Head Valve (SHV) but before the gas meter.
   ii. **Elevated Pressure** – After the gas regulator but before the gas meter.

e) Electrical Continuity of all steel underground service pipes must be provided. Bonding must be installed across all compression couplings and fittings installed on buried service pipes as per Gas Drawing Specification **EO-4718** titled “Bonding of Compression Couplings and Valves on Steel Mains and Services”.

f) Magnesium Anodes are required on all new direct buried steel service pipes. Con Edison will furnish and install the required anodes on its portion of gas steel gas service pipe with the customer and/or his contractor responsible for the anode installation on the customer's portion of service pipe. See the **Magnesium Anode Table** below for the applicable size and number of anodes required. All anode wires shall be a-fixed to the steel service pipe using the Thermit welding process or by using an approved connector as per Gas Drawing Specification **EO-14134** titled “Thermit Weld Process for Attaching Wire to Pipe or Fitting”.

<table>
<thead>
<tr>
<th>Pipe Size</th>
<th>Pipe Length</th>
<th>Anode Size</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>¾ inch through 1 ½ inch</td>
<td>Every 100’ or less in length</td>
<td>17 lb.</td>
<td>1</td>
</tr>
<tr>
<td>2 inch through 4 inch</td>
<td>Every 100’ or less in length</td>
<td>32 lb.</td>
<td>1</td>
</tr>
<tr>
<td>6 inch through 12 inch</td>
<td>Every 100’ or less in length</td>
<td>32 lb.</td>
<td>2</td>
</tr>
</tbody>
</table>

g) When a steel gas service is installed that supplies more than one building, the anodes shall be installed after Con Edison personnel has tested the pipe to determine the acceptability of the pipe coating.

h) Con Edison will test the catholic protection on all new gas service installations. Proper catholic protection must exist prior to the final tie-in by Con Edison.
i) Test Stations shall be installed along with anodes on all buried steel service pipes greater than 100 ft or more in length. Anode test stations are to consist of #10 copper wire leads (white) thermit-welded to the steel service pipe along with anode leads (black) routed into a 4” x 4” box, flush to grade. Con Edison’s Gas Corrosion personnel will make final splice.

Magnesium Anode

1. If the magnesium anode is received in a kraft paper bag:
   a) Remove kraft shipping paper from anode.
   b) Place the anode horizontally, preferably 18-inches below and 18-inches to the side of the steel service pipe in existing soil (not in backfill material).
   c) Thermit-weld anode wire to steel service pipe, re-coat and cover entire anode with soil.
   d) Moisten with water before the open trench is backfilled.

2. If the magnesium anode is received in a cardboard container:
   a) Open the indicated end and extend the wire to the pipe.
   b) Place boxed anode unit horizontally, preferably 18-inches below and 18-inches to the side of the pipe in existing soil, not sand backfill.
   c) Puncture several holes in the cardboard container.
   d) Cover with soil (not sand) and flood the anode with water before gas service trench is backfilled.
   e) Attach the anode wire to the steel service pipe with a Thermit weld and re-coat the connection site.
   f) Consult a Con Edison Customer Service Representative for anode placement on services supplying more than one building.

L. Leakage Testing:
All of the customer’s service and meter piping shall be tested in accordance with the following requirements:

1. All underground piping shall be blocked, supported and held in place with sand bags for the leakage test and coating inspection.

2. The test medium shall be either air, inert gas for testing pressures up to 150 psig. Water may be used for test pressures exceeding 150 psig.

3. The pressure source shall be isolated from the piping prior to the start of the test.

4. All joints, fittings, valves or other potential leak sources shall be checked for leakage during the pressure test using leak detection solution (soap water).

5. Test duration times are to be measured after the test medium has stabilized.

6. Pressure readings shall be performed using a calibrated pressure gauge.
M. **Test Pressure and Duration:**
The test pressure and duration shall comply with charts below:
For customer meter piping inside buildings in New York City:

<table>
<thead>
<tr>
<th>Maximum Utilization Pressure</th>
<th>Test Pressure</th>
<th>Test Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to ½ psig</td>
<td>3 psig</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>Over ½ psig to 3 psig</td>
<td>50 psig</td>
<td>30 Minutes</td>
</tr>
<tr>
<td>Over 3 psig to 15 psig</td>
<td>100 psig</td>
<td>1 Hour</td>
</tr>
<tr>
<td>Above 15 psig</td>
<td>100 psig or twice the maximum operating pressure but not less than 100 psig.</td>
<td>1 Hour</td>
</tr>
</tbody>
</table>

For all customer service and meter piping outside of buildings in NYC and all customer service and meter piping inside and outside of buildings in Westchester County:

<table>
<thead>
<tr>
<th>Maximum Utilization Pressure</th>
<th>Test Pressure</th>
<th>Test Duration</th>
</tr>
</thead>
</table>
| Less than 125 psig           | 90 psig or 1 ½ times the maximum operating pressure or whichever is greater. | ≤ 2” @ 15 minutes
                                   |                                               | >2” @ 30 minutes                      |
| Greater than 125 psig        | Requires Site Specific Test Monitoring - Refer to G-8200 Sec. 7.0 | Requires Site Specific Test Monitoring - Refer to G-8200 Sec. 7.0 |

1. The above charts **DO NOT** represent test pressure for the portion of distribution piping after the gas meter. For pressure testing requirements on gas piping after the gas meter, refer to NYC Fuel Gas Code and/or that of the local governing authorities/codes of the local municipality when working in Westchester.

2. The gas meter and associated gas regulating equipment **SHALL NOT** be installed prior to any pressure/leakage test. This equipment is to be leak tested at service line pressure.

N. **Restoring Gas Service after Repairs:**
A Work Authorization to restore a gas service must be submitted and received by Con Edison, Energy Services Group prior to restoring a gas service to a meter that was previously locked-off or isolated for inside piping repairs. In the event of an emergency situation, verbal approval directly from an Energy Services Representative communicated directly to the Gas Emergency Response Center (GERC) is permitted. In those instances, The GERC shall generate a work ticket for the Gas Turn-On. All requests for service shall detail the type of repairs made and the gas equipment to be turned on.

- Steel services installed prior to 1972 that have been disconnected due to unplanned work (e.g. leak repairs, contractor damages, no gas investigations, removing a blockage from a service, etc.) shall be replaced per the requirements in Section 2 of the Yellow Book.

- PPE plastic, copper, & steel services installed after 1971 that have been disconnected due to unplanned work (e.g. leak repairs, contractor damages, no gas investigations, removing a blockage from a service, etc.) may be reconnected by ConEdison after the service pipe is
pressure tested from the point of disconnect to the service head valve per Section 2(M) of the Yellow Book.

Prior to restoring a gas service, an integrity test shall be performed by Con Edison to establish the customer’s gas piping does not leak.

On service restorations for a high pressure (greater than 15 psig through 99 psig) Building of Public Assembly (BOPA) turn-on where repairs have been made, the location shall be visited by an Energy Services representative to verify if the completed repairs require a Gas Card (i.e. Blue Card) and “Gas Integrity Test and Gas Turn-On Affidavit” Exhibit - A (pg. 73) prior to issuing a work authorization. A Gas Operations supervisor shall be present after inside repairs have been completed and prior to the turn-on of all elevated pressure piping upstream of the service regulator inside BOPAs.

On service restorations to either a building or a multi-dwelling (4 or more families) or a master-metered building with risers, in which in the licensed master plumber has corrected a warning tag condition, it is the responsibility of the building owner to provide ALL of the following for an acceptable integrity test:

a) A Gas Card (i.e. Blue Card) or equivalent in Westchester, when required by local building code requirements.

b) A completed "Gas Integrity Test and Turn-on Affidavit" signed by a licensed plumber, including license number. The Company’s "Gas Integrity Test and Turn-On Affidavit" form can be found on our Energy Services Resource web-site located at http://www.coned.com/es/resources.asp or refer to Exhibit - A (pg. 73).

c) A shut-off valve for each appliance, no gas valve found, no appliance turn-on.

O. **Restoring Gas Service to Buildings with Risers:**
Master metered buildings where there is more than one riser and the risers are integrity tested individually, the gas in each riser shall occur immediately after an acceptable integrity of that riser off for the repair. Purpose is to prevent the possibilities of conditions changing after the test is performed and gas is introduced into the riser.

Prior to requesting a scheduled appointment the building owner or superintendent (agent) must provide to the company mechanic access to a minimum of two (2) apartments on each affected riser. One of these apartments must be the furthest apartment; the other shall be at the discretion of the company.

In each apartment accessed, the company will verify that:

a) Each appliance has a shut-off valve.

b) Visible piping is continuous and adequately supported up to the appliance valve.

c) All appliance valves are shut off and properly connected to appliances with standing pilots.

d) All appliance valves are open and properly connected to appliances with electronic ignition.

e) All appliance valves not connected to appliances are closed and plugged/capped.

f) All meter valves have been left open in premises which have meters in the apartments so that the integrity test is complete to the appliance valves. A lockable riser valve and a ⅜-inch diameter pressure tap downstream of, and in close proximity to the lockable riser valve, must
be installed on any riser or branch that is off for repair. The ⅛-inch pressure tap is to be used to connect a manometer for the continuity test described in Gas Specification G-11836 titled “Integrity Tests, Meter Turn-Ons and Turn-Offs, Meter Exchanges, and Restoration of Gas Service after Repairs”.

Any existing non-lockable riser valves can be left in place for risers not being repaired. It is recommended that lockable riser valve be installed on all risers in a building even if the riser is not being repaired. The purpose of the lockable riser valves is to make the gas turn-on easier, and to reduce the need for a complete shutdown if there is a leak in the future. Riser valves are not required for 1, 2, or 3 family-residential homes.

An existing drip leg with a lockable valve located downstream and in close proximity to the gas valve or a new ½-inch diameter reducer T fitting may be used in lieu of the ⅛-inch diameter pressure tap. If no riser valve or pressure tap fittings are present, contact supervisor for guidance.

P. **Sleeves:**
Wall-sleeves or sleeved-elbow units are to be installed by the customer's contractor when the gas service pipe penetrates a masonry wall or floor. Wall sleeves are to be installed perpendicular to the wall unless prior approval from Gas Construction is granted. Sleeves will be installed in accordance with Gas Drawing Specification EO-16629 titled “Installation of Steel Gas Service Piping” or EO-4890 titled “Service Pipe / Tubing and Service Sleeve through Vault, Open Areaway, Open Area under Stairs, Under Enclosed Area and Into Vaulted Basement”.

a) **Building with Basement**
Where a basement wall is located on the property line, the customer will supply and install the wall sleeve and Con Edison will install the service pipe and service head valve.

b) **Vaults and Areaways**
Con Edison will install the service pipe through a sleeve(s) provided and installed by the customer. Con Edison will also provide and install the service head valve.

- **Permanently Accessible From Inside of Building**
  Where a wall, footing, or foundation exists outside of the property-line or space, the customer shall install a wall sleeve in the vault wall.

- **Accessible From Street**
  Where a wall, footing, space or foundation exists at or outside the property line, the customer shall install a second wall sleeve similar to the one in the building wall.

- **Not Accessible From Street**
  Where a wall, footing, or foundation exists at or outside the property line, the customer shall install a continuous steel sleeve, which is adequately supported.

**Note:** If the service pipe can be exposed to physical damage (i.e. pipe is not protected by stairs above), then the service pipe must be installed in a continuous steel sleeve, which is adequately supported.

c) **Enclosures above Services (i.e., enclosed porch, sidewalk cafe)**
When a gas service passes under an enclosure the service pipe shall be installed through a continuous steel sleeve, installed by the customer, to one foot outside the enclosure. The sleeve shall be sealed at both ends and vented above grade to the outside atmosphere.

d) **Building without Basement**
When the property line and building line coincide, and the outside metering is not feasible, Con Edison will install its service pipe to the sleeved elbow unit, installed by the customer's contractor, and make the final connection outside the building wall or foundation footing.
Q. **Minimum Insulation Standards for Existing Dwellings Converting to Gas Space Heating:**

a) **Conversion to Gas Space Heating:**
Existing one, two, three and four family homes converting to gas heating are required to meet the minimum insulation standards set by the New York State Public Service Commission.

Basic standards are:

- The roof or ceiling must have at least six inches of insulation or insulation with an R-value of 19 or greater. This requirement does not apply to dwelling having a flat roof provided that four or more inches of insulation are in place or if insulation can be installed only by cutting into the roof.
- Dwellings must have storm windows or thermal windows with multiple glazing. A storm window is not required on any window opening into a fire escape.
- All entrances must have storm or thermal doors.

b) **Certificate of Compliance Requirement:**
Gas service will not be provided to any premises subject to this minimum installation standard until an executed Certificate of Compliance has been furnished to Con Edison. The Company’s “Certificate of Compliance” form can be found on our Energy Services Resource web-site located at [http://www.coned.com/es/resources.asp](http://www.coned.com/es/resources.asp) or refer to Exhibit - F (pg. 78).

c) **Waivers:**
Con Edison may waive the requirements where the applicant can:

- Establish through two independent estimates or a heat loss survey, that the purchase price and installation charge (excluding interest charges) will be greater than seven times the anticipated annual savings to be obtained (based on the present cost of the fuel currently used in the building).
- Establish that the dwelling is a historical building.
- Establish that other measures have been taken so that the overall heat loss for the building envelope does not exceed the total heat loss which would result from conformance with the minimum insulation standards. A licensed architect or engineer must certify the heat loss calculation.

**Note:** Waiver requests must be submitted to Con Edison using the company’s “REQUEST FOR WAIVER - MINIMUM INSULATION STANDARD” form located on the Energy Services Resource web-site located at [http://www.coned.com/es/resources.asp](http://www.coned.com/es/resources.asp) or refer to Exhibit - G (pg. 79).
R. **Emergency Natural Gas Generator**

a) **Customer Emergency Power Equipment**

Storm damage to our overhead electric distribution system, flood damage from hurricanes and recent building and fire code regulations, many home owners and building developers are condition by company and/or municipal Office of Emergency Management.

The customer or customer’s agent should electronically file through Energy Services Project Center at [www.coned/es](http://www.coned/es) for a gas service ruling. Energy Service will ensure all information is acceptable to service customer equipment and the natural gas generator.

In New York City, where a building is required to maintain emergency power equipment i.e. elevator bank, emergency lighting, fire pumps and the customer elects natural gas as the fuel source for the emergency generator, the customer is required to install a separate gas service and shut-off valve as per NYC Fire Department Rule. The Customer shall pay all costs associated for the second gas service under Excess Distribution Facility (EDF). See “Rates and Terms of Service” (pg. 24) and Special Services Provided at Cost (pg. 25) of this guide.

b) **Storm and Disaster Preparedness**

When a customer request gas service for the purpose of supplying a generator for power during an electric system blackout, [storm damage or preparation for a major natural or accidental disaster declared by AHJ emergency officials] it will be used during an interruption of electricity service and duration will be completed when the electric system is returned to normal operation.

Energy Services representatives will be in contact with the customer on customer cost, billing service classification rates, service layouts, electric and gas procedures. It is important prior to purchasing any generating equipment to contact Con Edison so we can assist on the connection to both our gas distribution system and the electric grid network.

Where a customer elects to install a natural gas generator for storm and natural disaster preparedness and the existing gas service is no longer adequate, the Customer shall pay all costs associated with the installation including, if necessary, all costs for system reinforcement, gas mains and additional gas service. See “Rates and Terms of Service” (pg. 24) and Special Services Provided at Cost (pg. 25) of this guide.

c) **Con Edison’s Review of Customer’s Installation**

Before the customer’s emergency equipment is installed, the customer shall submit for Company review:

1. A one-line electrical diagram showing the proposed installation, its interconnection to the electrical service and the means used to prevent parallel operation. Con Edison reserves the right of field inspection to ensure compliance.

2. A written statement signed by the customer stating that the emergency facilities will be used only during an interruption of the company's electrical service, or a Company announced voltage reduction, and for necessary testing purposes. Customers using emergency generating equipment under other than the above specified circumstances will be required to take service classification that permits parallel operation.
S. **Oil to Gas Conversion**
Natural gas is an efficient, safe, and reliable fuel source. It costs less than heating oil, and is one of the cleanest-burning fuels available. Converting to natural gas will reduce greenhouse gas emissions and improve the air quality in your community. Help make a cleaner, greener New York. Choose natural gas today. Now is a great time to switch to clean, efficient natural gas.

**Requirements:**
Before you submit an application for gas service, we encourage you to obtain your property’s internal conversion costs from a licensed professional. The following reference guide may help you understand the process and assess your options and potential cost savings.


If you decide natural gas is right for you, Con Edison recommends that you have a licensed professional submit your application for gas service.

Your application must include the following: (recent additions are marked with *)

- Addition of "Convert to Natural Gas" option as request type for all oil to gas conversions*
- Authorization from customer to submit this request*
- Property’s block and lot number
- Requirement for a unique customer email address*
- Existing oil type (2, 4, or 6)
- The type of service you will require (firm, interruptible, or both)
- Property’s point-of-entry (POE)
- Property’s invoiced oil bills for the last 24 months must be submitted as an attached file*
- Boiler configuration for the installation of two or more boilers (e.g. lead lag, 100% redundant)*
- Contractors are now required to complete the load information screen. Load letter attachments are no longer accepted*

After your application has been submitted, you will receive an acknowledgement letter detailing the next steps in the process. Be sure to use the provided case number when making inquiries about your application.

To learn more about converting to natural gas, including our new Area Growth initiative, refer to our website [www.coned.com/gasconversions/default.asp](http://www.coned.com/gasconversions/default.asp).

You can also register to view our recent webinar. NYC Clean heat Campaign [http://nyccleanheat.org/](http://nyccleanheat.org/)

**When converting from oil to natural gas it is a building rule requirement that your licensed heating specialist submit to the customer’s AHJ a written report that masonry chimney has been inspected and upgraded to accommodate natural gas flue gases.**

Building Code Reference:
New York City and State Fuel Gas Code – Masonry Chimney Utilized to Vent Boiler
NYC – FGC Section 501.3 to 501.15.4 and NYS-FGC 501.3 to 501.15.4.1
SECTION 3 – Gas Pressure Regulator Equipment

A gas service line to a customer includes equipment to reduce the pressure from distribution pressure to the pressure required by the customer. Such equipment is specifically sized to meet the customer’s needs. Con Edison will furnish the gas service regulator(s) for the installation by the customer. Where design conditions require external control piping or pilot regulators, only qualified Con Edison personnel (i.e. Gas Pressure Control) shall perform the installation.

A. General Installation Requirements

Note: Services fed from Con Edison’s low pressure distribution systems, which operate below twelve inches (12”) WC, do not require gas pressure regulator equipment. The following provisions apply:

- Delivery pressures to individual living spaces within multi-unit residential buildings shall not be greater than 7” WC (¼ psig).

- If the customer is supplied from the Con Edison low pressure gas system and requires higher pressure than the normal delivery pressure, a gas booster is required as per Gas Specification G-2040 titled “Requirements for the Installation of Gas Boosters, Micro-Turbines and Associated Protective Devices”.

- If the Customer is supplied from the Con Edison medium, intermediate or high pressure gas system and requires higher pressure than the normal delivery pressure, elevated delivery pressure is required.

- Con Edison’s delivery pressures to all customers are always as low as reasonably allowable.

- If a Customer requires elevated delivery pressure, documentation from the manufacturer of the equipment requiring elevated delivery pressure is required with the customer’s load letter.

- Increments of elevated delivery pressure are 1/2 psig (14” WC), 1 psig, 2 psig, and one psig increments thereafter.

- Refer to Gas Engineering Drawing EO-17118 R3 Titled “Regulator Vent Installation” for regulator vent requirements including sizing, location and tagging.

- If multiple meters and/or regulators are installed, refer to Gas Meter Specification G-703 Titled “Requirements for Branch Lines Supplying Multiple Regulators and/or Meters” for valve and pipe size requirements.

Normal Delivery Pressure - For Con Edison low pressure gas system customers, this pressure is a minimum of 4 inches of water column (WC). Higher pressure will not be provided to compensate for inadequately sized customer fuel lines. Exceptions to the 4 inches WC may be warranted for commercial or industrial customers who can demonstrate special fuel pressure needs and if no other reasonable alternative exists. Higher delivered pressure requires the prior approval of the company. In such cases, the customer shall provide written documentation on equipment specifications and fuel requirements.
B. **Con Edison System Elevated Delivery Pressure**

*Medium and High Pressure* - For medium and high gas pressure system customers, this pressure is 5" WC to 7" WC (¼ psig).

*Elevated Delivery Pressure* - A Con Edison delivery pressure greater than 7" WC (¼ psig) used by customer equipment.

C. **Available Delivery Pressure**

Elevated delivery pressures are available according to the gas main system operating pressure. Con Edison will determine the method of supply based on supply system capabilities.

- The minimum elevated delivery pressure is 1/2 psig (14" WC).

> In New York City, as per the New York City Fuel Gas Code, no gas distribution piping containing gas at a pressure in excess of 1/2 psig shall be run within a building for residential usage.

**Exceptions:**

- Pressure not exceeding 3 psig is permitted for commercial use, industrial use, and other large volume use in which fuel requirements for boiler room equipment exceed 4,000 cubic feet per hour and such large volume use is supplied through separate gas distribution piping to the boiler room.

- Gas pressure not exceeding 15 psig is permitted for boiler room equipment in excess of 100,000 cubic feet per hour provided the gas distribution piping is installed as per Section 406 of the New York City Fuel Gas Code (NYCFGC).

- The use of gas pressure in excess of 15 psig shall be permitted for distribution piping so long as all the requirements of Section 406 of the NYCFGC are met.

- Inside gas meter piping operating at a pressure in excess of 15 psig shall comply with the NYCFGC Appendix E, “Meters and Gas Service Piping,” Section E.2.1.

- Dedicated gas piping is required for a combined heat and power (CHP) system that uses high-pressure gas. This is to prevent accidental tapping into an elevated pressure pipe that has other uses, such as domestic applications that operate at a lower pressure. Plans for such application shall have both NYC Building and FDNY approval.

D. **Installation of Vent Line Water Intrusion Devices**

All outside regulators and the outside terminus for inside service regulators shall have an approved vent line cap (peck vent) or water intrusion protection device *aka* vent line protector (VLP).

- Refer to **Gas Specification G-8217** titled “*Flood-Prone Areas for the Installation of Gas Service Regulator Vent Line Protectors (VLP’s)*” for location listings (by M&S Plate) where water intrusion protection devices shall be installed on vent lines of elevated pressure gas services in Category 3 hurricane flood prone areas.

- For those areas not listed in **G-8217** where there is a potential for exposure to severe water or flooding, a water intrusion protection device should be considered for installation to prevent blocking of the service regulator vent line at Con Edison’s discretion.

- Each Water Intrusion Protection Device shall:
  1. Terminate outdoors with VLP facing downward.
2. Be weather and insect resistant.
3. Not be covered or obstructed in any way that would prevent or interfere with the operation of the gas regulator.
4. Have a minimum clearance of eighteen inches (18”) from the final outdoor grade to the lower end of the protection device.

- Refer to Gas Meter Specification G-699-1a titled “Installation of Gas Service Regulator Vent Line Protectors (VLPs)” for proper sizing of device and properly matched 90 deg. elbow and pipe strap.

- Where the installation of a VLP is impractical, the vent shall be raised to a minimum of three feet (3’) above the Base Flood Elevation (BFE) provided on the Federal Emergency Management Agency (FEMA) maps.
SECTION 4 – Gas Meter Equipment

Gas meters and gas service regulators shall be selected by the Gas Measurement Section based on information provided by the customer or the customer’s agent.

A. General Installation Requirements:

1. Where the customer’s high-pressure gas service requires a gas meter room it is the responsibility of the applicant (customer agent, architect, professional engineer, project manager) to meet the local municipal building and fire code. Documentation of an accessible sign off from the authority having jurisdiction shall be required prior to installing gas meter equipment.

2. The Customer shall provide at all times a clear passage for deliveries and removal of gas meter(s) to a gas meter location in a building. For those instances where large gas meters are required the customer shall provide elevators, lifts or ramps of adequate strength and openings of adequate size for the passage of gas meter(s).

3. When facing the piping for a gas diaphragm meter, the gas service riser should be to the left and the Customer owned piping to the right of the meter. For rotary gas meters, refer to applicable gas meter drawing specifications.

4. Whenever any alteration is made to gas meter piping, the customer shall install an approved gas meter bar where no meter bar exists. It is the responsibility of the installing contractor to install plugs or caps on any open ended pipe or fitting on any gas installation to ensure the integrity of that system. This includes plugs on both the line and load side of the gas meter bar.

5. In a building where two or more customers are to be supplied from a single service, the meters should be grouped and located in designated meter room.

6. Information on space requirements for service and metering equipment should be obtained in advance from the company, while building or alteration plans are in the preliminary stage and before any construction work is started.

7. Where more than one service pipe supplies any building or units within a building or premises, no connection shall be made between piping systems on the load side of the meter.

8. Where the customer's service piping supplies two or more buildings, each outdoor branch of the service pipe shall have its own outdoor shut-off and the piping must be cathodically protected according to code standards.

7. Supports for pressure regulators and meter piping shall be securely fastened in a manner acceptable to Con Edison. Con Edison will not accept nails, wood plugs or dowels as a means of fastening such supports.

8. If multiple meters and/or regulators are installed, refer to Gas Meter Specification G-703, Titled "Requirements for Branch Lines Supplying Multiple Regulators and/or Meters" for valve and pipe size requirements.

In New York City

Where the inside gas meter piping is greater than 4-inches in diameter and operates at a pressure in excess of 15 psig, it shall comply with the following:

a) The meter piping shall be installed in a properly ventilated meter room of three (3) hour fire rated construction.
A Customer Guide to Natural Gas Service Installation

Consolidated Edison Co. Inc.

b) The maximum distance * measured from the outlet service head valve to the farthest regulator that reduces the pressure to below 15 psig shall be limited as per Table 1:

<table>
<thead>
<tr>
<th>Size of Meter Piping</th>
<th>Maximum Distance (Linear Feet of Pipe)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Through 2-Inch Pipe Size</td>
<td>4 Feet</td>
</tr>
<tr>
<td>Over 2-Inch through 4-Inch Pipe Size</td>
<td>8 Feet</td>
</tr>
<tr>
<td>Over 4-Inch through 8-Inch Pipe Size</td>
<td>15 Feet</td>
</tr>
<tr>
<td>10-Inch Pipe Size and Larger</td>
<td>20 Feet</td>
</tr>
</tbody>
</table>

**Note:** Measurement to be taken in linear feet of pipe (including elbows and offsets) from the outlet of the service head valve to the inlet of the farthest regulator. In the case of industrial type regulator installations (i.e. parallel runs of two stages of regulation), the measurement shall be taken to the inlet of the farthest second stage regulator.

c) Where these maximum distances cannot be met, refer to Table 2:

<table>
<thead>
<tr>
<th>Footage (Linear Feet of Pipe) In Excess of the Above Requirements</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 5 Feet</td>
<td>The meter room shall have 3 hour fire rating construction and adequate ventilation.</td>
</tr>
<tr>
<td>Over 5 Feet through 10 Feet</td>
<td>Above requirements plus a combustible gas detection alarm system.</td>
</tr>
<tr>
<td>Over 10 Feet through 15 Feet</td>
<td>Above requirements plus controlled inspection by the customer or his representative as required by the New York City Building Code.</td>
</tr>
<tr>
<td>Over 15 Feet through 20 Feet</td>
<td>Above requirements plus explosion venting per NFPA 68 and NFPA 69 or alternative ventilation acceptable to the Commissioner and automatic shutoff devices.</td>
</tr>
<tr>
<td>Over 20 Feet</td>
<td>Above requirements plus suitable fire protection as approved by the Building Commissioner.</td>
</tr>
</tbody>
</table>

**Note:** In new gas installations made in existing buildings, the above requirement shall be used to the extent feasible. Alternative designs may be considered, approved and certified by the Office of the NYC Building Commissioner.

**In Westchester County**

Piping systems inside buildings, in excess of 5 psig shall comply with one or more of the conditions specified in:

a) Section 402.6 of the - “Fuel Gas Code of New York State”.

B. **Identification of Customer’s Piping**

In buildings where two or more customers are to be served from a single gas service, the portion of the building supplied through each meter must be permanently identified at the gas meter. In multi-tenant buildings, the designation at each meter shall be the same as the permanent designation of the apartment, store, office, or loft etc. which the gas meter serves. Stenciled letter characters ¾-inch to 1½-inches in height is recommended.

C. **Approved Locations for Service and Metering Equipment**

Each service regulator on new and replacement service lines must be installed outside of the building, unless it is impractical or unsafe to do so. Service head valves, pressure regulators (where required), meters and associated valves should be located according to the following guidelines:
a) **Outdoor Installations:**

1. Gas meters and associated equipment installed outdoors that may be subject to vandalism as determined by Con Edison, must be protected by a 6 feet high lockable fence, chain-link or equivalent. The fence must be equipped with a double hasp lock to allow access by Con Edison and the customer.

2. All outdoor industrial sets must be protected by a 6 feet high lockable fence, chain-link or equivalent. The fence must be equipped with a double hasp lock to allow access by Con Edison and the customer.

3. Gas meters, regulators and associated gas piping that may be subjected to vehicle damage must be adequately protected. Pipe posts or bollards shall be installed by the customer. Certain installations may require more substantial protection at the discretion of Con Edison.

4. Gas meters may be placed to within one foot under, over or to either side of an electric meter.

5. Although not desirable and should be avoided, gas meters may be placed under windows provided no other suitable location is available.

6. Gas regulator vent pipes must be placed at the greatest horizontal distance and a minimum of 18-inches where practical, from any opening which would allow vented gas to enter the building.

7. Installation of a gas service regulator vent line protector (VLP) is required on new and existing gas service regulator (indoor and outdoor) vent outlet terminus.

b) **Indoor Installations:**

1. As near as practicable to the point of entrance of the gas service pipe.

2. Gas meters, regulators and associated gas piping that may be subjected to vehicle damage must be adequately protected. Pipe posts or bollards shall be installed by the customer. Certain installations may require more substantial protection at the discretion of Con Edison.

3. Gas meters may be placed to within 36-inches of a source of ignition. (Example: an Electric Service switch).

4. Gas meters **may not** be placed within three feet (3') of either side of an electric meter. Gas meters may not be placed under or above an electric meter. If field conditions prevent the obtaining of the 3-foot clearance required, it is permissible to erect a barrier between the electric and gas meters provided all other normal clearances for gas and electric meter installations are met. The barrier should be a permanently fixed, fire resistant partition or wall such as 3/8-inch sheetrock on either side of a frame made from 2-inch x 3-inch lumber, extending from floor to ceiling and 24-inches out from the wall. Other materials may be accepted but must be submitted to the company for approval before erecting.

5. In a meter room or other space that is adequately ventilated, dry and free from corrosive vapors, not subject to extreme temperatures or to extreme temperature variations. (See ventilation requirements for large general, mix-used buildings as per NYC Fuel Gas Code, Appendix G).

6. Gas meters must be kept way from flues; un-insulated steam pipes or other sources of heat i.e. boiler room.
7. Installation of a gas service regulator vent line protector (VLP) is required on new and existing gas service regulator (indoor and outdoor) vent outlet terminus.

8. Gas meters are to be installed in an accessible location in accordance with the requirements of Con Edison and the Authorities Having Jurisdiction (AHJ). A clear space, as designated by Con Edison, shall be provided around this equipment.

9. Installed at a horizontal distance of at least ten feet (10’) from the cellar termination of a stairway. Where the width of the building is such that the required ten foot distance cannot be obtained, the maximum distance practicable from such stairway termination shall be maintained and suitable protection may be required.

10. At a clear distance of at least five feet horizontally or vertically from any high pressure tanks containing liquid or gas, or combination thereof, under a pressure in excess of 15 psi.

c) Prohibited Locations for Service and Metering Equipment Outdoors and Indoors:

Service head valves, meters, pressure regulators, and associated equipment shall not be located:

1. In a designated boiler or fire pump room of a multi-family or commercial building.

2. Where they could become a hindrance, obstruction or exposed to mechanical damage.

3. In sleeping quarters, toilets, bathrooms, washrooms, unventilated closets, stairways and stair landings.

4. Indoors on walls of elevator or dumbwaiter shafts, over doorways.

5. Under water pipes or other pipes which may be subject to sweating.

6. In any recess or enclosure unless its design and location have been approved by Con Edison.

7. Gas piping shall not be installed within six inches of electric meter equipment.

D. Aesthetics:

Outdoor gas metering is a requirement on one (1), two (2), and three (3), family residential buildings. Con Edison understands that maintaining an aesthetically appealing exterior is critical for builders, developers and residential home owners, where a new buyer’s decision between similar homes can be decided on curb appeal. Energy Services helps builders, developers and new home owners add value to their buildings by assisting in the selection and planning of the layout of gas metering equipment.

The specifications for outdoor gas meter and regulator installations allow for low profile installations with a few restrictions. Customers can install a gas meter as low as six-inches from the bottom of the meter to finished grade. On a meter installation with a gas pressure regulator, installation requires a minimum finished grade clearance of 18 inches between the gas meter and the relief vent outlet terminus.

Painting of the equipment is allowed as long as the meter dials, vent screen and relief device of a regulator are maintained free from paint.

Screen the metering equipment with shrubbery, a fence or a trellis.

The option is available to enclose the gas meter and regulator equipment in a meter closet or a cabinet.
Enclosing the equipment is possible as long as it remains properly ventilated and the spacing requirements are maintained. Consult with a Customer Service Representative in the planning stage and prior to purchasing and/or installing an enclosure.

E. **Gas Meter Seals:**
Gas Meters and associated equipment are sealed and/or locked to prevent tampering. No persons, except a duly authorized employee of Con Edison, shall be permitted to break or replace a seal or lock, or to alter or change a meter, its connections or location, or to alter a gas pressure regulator.

F. **Removal of Con Edison’s Equipment during Building Alterations:**
When necessary for building alterations and upon suitable advance written notification to the company, Con Edison will shut off service and remove meters and pressure regulators to protect them from damage and to expedite such alterations. Meters and pressure regulators shall be re-installed under conditions governing new installations.

G. **Demolition:**
No building demolition shall commence until Con Edison’s meters and regulators have been removed and the gas service has been cut off outside of the structure to be demolished.

H. **Installation of Gas Service Regulator Vent Line Protection Device:**
Water intrusion protection devices shall be installed on vent lines of gas services designed at elevated pressures (new and existing) installed within Category 3 hurricane flood prone areas. Refer to Gas Metering Specification G-699 titled “Installation of Vent Line Water Intrusion Protection Devices” for installation requirements. Refer to Gas Engineering Specification G-8217-1a titled “Flood-Prone Areas for the Installation of Gas Service Regulator Vent Line Protectors (VLP’s)” for location tables listing the current designated flood-prone areas (by Gas M&S Plate).

**Note:**

a) Where the installation of a VLP is impractical, the vent shall be raised to a minimum of three feet (3’) above the Base Flood Elevation (BFE) provided on the Federal Emergency Management Agency (FEMA) maps.

b) In areas outside of Category 3 hurricane flood prone areas where there is a potential for exposure to severe water and/or flooding, a water intrusion protection device will be considered for installation to prevent blocking of the gas service regulator vent line at Con Edison’s discretion.

c) Each water intrusion protection device shall:

- Be weather and insect resistant.
- Not be covered or obstructed in any way that would prevent or interfere with the operation of the gas service regulator.

I. **Commercial & Industrial Customer Equipment Interaction with Con Edison Gas Regulator and Gas Meter**

The following types of Customer boiler and generator equipment are known to have an adverse effect on Con Edison’s gas regulator and meter with possible safety and billing implications:

- High efficiency modulating boilers
- High efficiency boilers
• Any equipment with negative pressure combustion systems

• Pulse boilers

• Any equipment with solenoid and/or snap acting valves that shuts down immediately (Quickly) instead of modulating or ramping down

• Any equipment with equipment control system that shuts down immediately (or too quickly) instead of modulating or ramping down

• Any equipment using spark ignition

If the Customer installs any of the above types of equipment, valves, or controls, the Customer must do the following to ensure that Con Edison’s regulators and meters operate correctly and safely:

1) If equipment manufacturer’s literature requires or recommends the installation of additional regulators, governors, control valves or other devices, they shall be installed per the manufacturer’s recommendations for each piece of equipment. The equipment shall be installed using the piping sizes recommended for the equipment.

2) If equipment manufacturer recommended regulators, governors, control valves or other devices do not correct issues that impact the operation of Con Edison’s regulator or meter, the manufacturer’s representative shall be consulted. The Customer will work with the equipment manufacturer and configure the equipment as necessary to ensure that it does not adversely affect the operation of Con Edison’s gas regulation and metering equipment.

3) If Con Edison deems that their regulators and meters are working properly, it is the customer’s responsibility that their equipment works with Con Edison’s.

4) If the above actions do not correct adverse interaction with Con Edison’s regulation and metering equipment, Con Edison will shutoff and safety tag equipment until corrected. Any expenses incurred above are at the Customer’s expense.
SECTION 5 – Distribution Generation (DG)-New Technology

Combined Heat and Power Technology uses one fuel source to simultaneously produce both heat and electricity using highly efficient systems. Energy is supplied in the form of electricity, heat and hot water. This can produce savings and can cut the amount of energy needed from a utility company. CHP systems also improve our environment by lowering the demand on New York City’s and Westchester’s electrical grid – helping local power plants be more efficient by reducing our carbon emissions. While CHP systems may use a variety of fuel or renewable sources, this guide addresses turbines and reciprocating engines which use natural gas to generate electricity. Turbines and reciprocating engines capture waste heat, but they generate electricity differently. A mechanical engineer skilled in CHP systems can recommend the appropriate system type for a specific building. It is recommended that you do not purchase any CHP equipment until a complete evaluation has been made.

A. Fuel Source and Pressure
This guide only addresses CHP systems that utilize natural gas as the fuel source. Some cogeneration systems require elevated gas pressure to operate efficiently. Different zones within the City are supplied with different pressure, and different city agencies have varying standards for what constitutes high-pressure. The infrastructure investment required to deliver adequate volumes of natural gas to your building may make a CHP system impractical.

A CHP system which uses high-pressure gas requires dedicated gas piping to prevent accidental tapping into an elevated pressure pipe that has other uses, such as domestic applications that operate at a lower pressure. Plans for such application shall have both NYC Building and FDNY approval. Refer to the New York City Construction Codes, the New York City Fire Code, and the rules and regulations of the New York City Department of Environmental Protection for complete information. Consult with a New York State licensed professional engineer with expertise in CHP systems if you are unclear on how to proceed.

B. Installing a Natural Gas-Fueled CHP System:
Con Edison’s Energy Services website provides the resources necessary to process requests for new, additional, removal or relocation of gas service provided by Con Edison. Customers can also access existing requests through the Project Center. Con Edison will assign a Customer Project Manager (CPM) to the application. The CPM will act as the single point of contact throughout the permit process. A gas customer should expect the following steps:

1. Notification: Con Edison must be notified before the purchase of a CHP unit by the Customer or his/her Agent.

2. Load Letter: Submit a load letter to Con Edison Energy Services division.

3. Gas Specifications: Con Ed will inform the applicant of the required gas specs to follow for service.

4. Planning Group Meeting: All parties involved should meet to discuss all construction aspects of the project. Timelines and milestones should be agreed upon by all parties.

5. CPM Follow-up: The CPM will follow up with the owner, consultant and contractor with a complete package so the project can be worked.

6. Gas Meter Authorization: The CHP unit requires a dedicated gas connection line, and a separate meter is necessary to apply for the Cogeneration Rate.

7. A Department of Buildings’ gas authorization is required for all new gas meters and associated piping.
SECTION 6 – Customer Responsibility

General – Customer Piping Adequacy and Safety of Installation

Con Edison reserves the right to withhold service or discontinue service until the Customers shall have been authorized by the authorities having jurisdiction over the same; and the Con Edison further reserves the right to withhold its service, or discontinuance its service, whenever such installation or part thereof is deemed by the Con Edison to be unsafe, inadequate, or unsuitable for receiving Con Edison gas service, or to interfere with or impair the continuity or quality of the Con Edison service to the Customer or to others. Con Edison has a “warning tag” procedure G-11837 titled “Investigation of an Inside Gas Leak or Odor Call and Issuance of a Warning Tag” in accordance to 16 NYCRR Part 261 Piping beyond The Meter to cover hazardous conditions found on a Customer’s premise. It is the Customer’s responsibility to correct such deficiencies before a gas service will be restored.

A. Liability

a) Continuity of Supply: Con Edison will endeavor at all times to provide regular and uninterrupted supply of service, but in case the supply of service shall be interrupted or irregular or defective or fail from causes beyond its control or through negligence of employees, servants, or agents Con Edison will not be liable therefore. Continuing may, without liability therefore, interrupt service to any Customer or customers in the event of emergency threatening the integrity of the gas system if, in its sole judgment, such action will prevent or alleviate the emergency condition.

b) Customer’s Equipment: Con Edison point of demarcation is after the gas meter outlet, neither by inspection or non-rejection, nor in any way, does Con Edison give any warranty, expressed or implied, as to the adequacy, safety, or other characteristics of any structure, equipment, wire, pipes, appliances or owned, installed, or maintained by the customer or leased by the customer from third parties.

c) Customer’s Responsibility for Safety Inspection: Wherever it is provided that the Customer shall perform any work or furnish or maintain any gas equipment or facilities, the Customer shall do the same or cause the same to be done at its expense, except that the Company will visit the Customer’s premises without charge if a safety issue may exist. The Company will make the situation safe and will make minor screwdriver repairs, encompassing the provisions of technical advice, minor adjustments and minor repairs, including the relighting of gas pilot lights, only when such work is performed incidental to other work being performed by the Company to ensure the safety and reliability of the gas service. Screwdriver repairs will not include parts replacement, will be short in duration and will not be solicited but performed only in response to a request for a safety inspection by the Customer.

d) Company Equipment and Use of Service: Con Edison will not be liable for any injury, casualty, or damage resulting in any way from the supply or use of Company’s structures, equipment, wires, pipes, appliances, or devices on the customer’s premises, except injuries or damages resulting from negligence of the Company.

e) Selection of Service Classification: Con Edison will endeavor to assist the customer in the selection of the Service Classification which may be in the most favorable to the customer’s requirements. Con Edison can in no way make any warranty, expressed or implied, as to rates, classifications or provisions favorable to the future service requirements of the customer.

B. Repairs after the Meter - Leakage of Gas / Warning Tag Condition

The customer shall give immediate notice to Con Edison of any leakage, damage or escape of gas. When a hazard, gas leak, condition involves the customer’s gas piping and/or equipment is found, our mechanic will disconnect, shut off the effected gas piping/equipment. When the owner or no other
The occupant will provide signature to the warning tag, Con Edison shall communicate a written follow-up letter describing the condition, which must be corrected/repairied to the billing customer.

The letter will explain what is needed on the Customer’s part to restore gas service. Alterations, repairs and the gassing-in of the affected gas piping and equipment are to be made by a qualified gas equipment service company/licensed plumber and/or building superintendent (if qualified). Con Edison recommends the customer contact us for a safety inspection to verify the repair and that no further action is required.

C. **Gas Booster and Jeweler Torch Safety – May Induce Back-Pressure and Suction**

   a) **Scope**
   When the nature of the customer’s utilization equipment may induce back-pressure or suction in the piping system carrying Con Edison's gas supply, the customer shall install suitable protective devices, follow the manufacturer’s installation instructions and be in compliance with the applicable Gas Specification G-2040 titled “Requirements for the Installation of Gas Boosters, Micro-Turbines and associated system protective devices” for gas boosters and Gas Specification G-2041 titled Requirements for the Installation of Gas Utilization Equipment that mixes Pressurized Oxygen with Natural Gas Jewelry Torch Equipment before gas can be authorized to specified customer equipment.

   b) **Gas Booster may produce excessive suction causing gas service “poor pressure” condition**
   Excessive suction may be produced if positive displacement type boosters, piston type pumps or centrifugal fan type boosters, which are capable of developing pressure 4-inch water column or more, are started with the meter inlet or service valve closed or restricted. In such installations check valves and a low-pressure electrical switch, which will stop the pump or booster, shall be installed. For gas booster installation requirements refer to Gas Specification G-2040 titled “Requirements for the Installation of Gas Boosters, Micro-Turbines and associated system protective devices”.

   c) **Where protection is required on jeweler torch**
   Protection is required whenever an installation uses pressurized air or oxygen that might accidentally or otherwise cause air or oxygen to enter the gas piping. Whenever air or oxygen is mixed with gas, and the mixing takes place in the usual enclosed type-mixing tee before the burner nozzle, a check valve is required. The check valve must be installed and maintained by the customer/contractor (See Section 11/Table 24). They are to be visible, accessible and located downstream of the meter and as close to the utilization equipment as practical. Torches must have flame arrestors installed in their supply lines. Customer/contractor is to contact Con Edison when this application is to be used.

D. **Signage for Multiple Gas Services**

   When more than one service pipe supplies any building or units within a building or premises, visible signage shall be provided, installed, and maintained by the customer both inside and outside the building to indicate the location of the other service(s). All signs shall be made of durable, weatherproof material, minimum size 8½” wide x 5½ high. Outside signs shall be permanently mounted on the building directly over or as close as possible to the gas service point of entry and/or curb valve location.

**Example Text:**

Second Gas Service Located 27 Feet Right of Left Wall on West 57 Street

Second Gas Service Located 34 Feet Left of Right Wall.
Inside signs shall be permanently mounted near each service point of entry, preferably on the wall over the head of service valve. The wording shall indicate the Street/Avenue from which the service pipe enters, as well as identifiable locations with the building. Example: Second Gas Service Located on Lexington Avenue Side In Storage Room.

The appropriate wording, measurements and location for the signs can be discussed and approved by your Energy Service Representative.

**Sample Signage (Installed and Maintained by Customer)**

```
Second Gas Service
Located 27 feet Right of the Left Wall
On W.57th St.
```

```
Second Gas Service
Located 34 feet Left of the Right Wall
```
Section 7 - Reference Material

Abbreviations

AHJ  Authority Having Jurisdiction
AGA  American Gas Association
ANSI American National Standards Institute
ASME American Society of Mechanical Engineers
ASTM American Society of Testing Materials
BTU  British Thermal Unit
BTUH  British Thermal Unit per Hour
CCF  Hundred Cubic Feet
CF   Cubic Foot
CFH  Cubic Foot per Hour
CHP  Combined Heat and Power
CWI  Certified Welding Inspector
DOB  Department of Buildings
MBTUH Thousand British Thermal Units per Hour
MCF  Thousand Cubic Feet
MCFH Thousand Cubic Feet per Hour
MMBTUH One Million British Thermal Units per Hour
NYCFGC New York City Fuel Gas Code
PSIG Pounds per Square Inch Gauge
UL   Underwriters Laboratories
WC   Pressure in Inches of Water Column
Definitions

Appliance
Any device that utilizes natural gas as a fuel or raw material to produce light, heat, power, steam, refrigeration or air conditioning.

Areaway
A space below grade, adjacent to a building, enclosed by walls but open to the outside air.

British Thermal Unit (Btu)
The quantity of heat required to raise the temperature of one pound of water one degree of Fahrenheit from 58.5 to 59.5 degrees Fahrenheit under standard pressure of 30 inches of mercury at or near its point of maximum density.

Building
A structure that stands alone or is cut off from adjoining structures by firewalls as defined by the municipality or the authority having jurisdiction with no openings or penetrations with doorways to be protected by approved fire doors.

By-Pass
An auxiliary piping arrangement, generally to carry gas around specific equipment or an integral section of a piping system. A by-pass is usually installed to permit passage through the line while adjustments or repairs are made on the section that is by-passed.

Butt-Welding
Type of weld where two pieces of metal are joined by fastening their ends together without overlapping.

Cathodic Protection
Installation of Magnesium anodes, insulating fittings and effective coating on buried steel pipe to minimize galvanic corrosion activity.

Certificate of Inspection
Blue Card: Certification issued by a municipal authority, or any other agency legally authorized to regulate or inspect the customer’s installation or equipment.
Affidavit: Certification by a plumber that the required pressure test has been performed for the required time period.

Combustible Material
Any material such as wood, paper, sheet rock, fibers or other materials that will smolder, ignite or burn when adjacent to or in contact with heat producing appliances, vent connectors, gas vents, chimneys or hot water pipes.

Combustion Air
Air supplied to an appliance specifically for the combustion of fuel.

Commodity Cost
The cost of the natural gas or electricity commodity and related charges to deliver it to the marketplace.

Company
Consolidated Edison Inc. its subsidiaries and our agents.

Contractor
An individual, or group of individuals licensed by the authorities having jurisdiction retained by the customer to perform plumbing work.
Cubic Foot of Gas (Standard)
The most common unit of measurement of gas volume. The amount of gas that occupies one cubic foot of space when a temperature of 60 degrees F, and under pressure equivalent to that of 29.92 inches of mercury.

Customer
A present customer or an applicant for the company’s natural gas service.

Customer’s Agent
Architects, Engineers, Contractor’s, Excavators, Builders, and Developer who are acting on behalf of a customer or applicant

Daily Average Send-Out
The total quantity of gas delivered for a period of time divided by the number of days in the period.

Dekatherm
A unit of heating value equivalent to 10 therms or 1,000,000 Btu's.

Demand
The rate at which gas is delivered to or by a system, part of a system, or a piece of equipment, expressed in cubic feet or therms or multiples thereof, for a designated period of time called the demand interval.

Direct Vent Appliance
An appliance that is constructed and installed so that all air for combustion is obtained from the outside atmosphere and all flue gases are discharged to the outside atmosphere.

Distribution
The delivery of natural gas through pipeline systems to an end-user.

Distribution Piping
Refers to all piping from the meter outlet to customer equipment or appliances. However, on an outdoor meter set where the piping returns underground before entering the building, the distribution piping would start at the point of service termination, which is outside the building wall.

Expense
Includes all labor material and other applicable charges including overheads involved with the work to be performed.

Fan Assisted Appliance
An appliance with a venting system designed to remove flue or vent gases by mechanical means, that may consist of an induced draft portion under non-positive static pressure or forced draft portion under positive static pressure.

Firm Service
Delivery of gas to a customer on a continuous basis with no anticipated interruptions.

Fire wall
A wall or portion that is rated and intended to retard the spread of fire or products of combustion. Fire walls must be in accordance with NYS and Local Building Codes.

Fuel Line
The piping that is installed after the company’s meter or regulator that connects the customer’s appliances and equipment to the gas supply. Fuel lines are the responsibility of the customer.
Gas Main or Main Extension
The piping system owned by the company that is used for the distribution of gas that is (a) located within the limits of any public highway or on a private right of way or (b) is used to supply gas to two or more gas service.

Gas Meter Room
A gas meter room is space within a municipal building occupancy classification group that is solely used to house the natural gas meter and regulator equipment. Residential occupancy is exempt from building code requirement as the gas meter is available for continuous supervision.

Gas, Natural
A naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in porous geologic formations beneath the earth's surface, often in association with petroleum. The principal constituent is methane.

Gas Service
The piping and accessory equipment owned by the company that is connected to the gas main and installed on a customer’s property to supply gas to a residence or business.

Grid
The layout of a gas distribution system in which pipes are laid in both directions in the streets and frequently connected at intersections.

House Riser, Gas
The principal vertical pipe that conducts the gas from the meter to the different floors of the building.

Inches of Water Column
A unit of measuring pressure (1 psig = 27.7” WC).

Input Rate
The rate at which natural gas is supplied to an appliance. It may be expressed in Btu per hour (Btuh), thousands of Btu per hour (MBtuh); in cubic feet per hour (cfh); or thousands of cubic feet per hour (Mcfh); in therms (th) or dekatherms (Dth) per hour.

In Service
A term used to indicate equipment is connected to the system and fulfilling its designated function.

Interruptible Service
Low priority service offered to customers under schedules or contracts which anticipate and permit interruption on short notice, generally in peak-load seasons, due to system supply or capacity limitations that threaten a local distribution company’s ability to continue to serve its firm customers and higher priority users. Customers taking interruptible service generally have alternate energy sources to supply their service, for example, boilers which are capable of consuming fuel oil in additional to natural gas.

Loads (Connected)
The total sum of the rated BTUH input of all connected gas equipment. Can also be expressed in total cubic feet per hour (CFH).

Load
The amount of gas delivered or required at any specified point or points on a system; load originates primarily at the gas consuming equipment of the customers. Also, to load a pressure regulator is to set the regulator to maintain a given pressure as the rate of gas flow through the regulator varies.
Make-Up Air
The volume of either outside or inside air that is supplied to a space to replace air consumed by the gas burning appliances, exhausted or otherwise removed from the space.

Mechanical Exhaust Appliance
An appliance with a venting system designed to remove flue or vent gases by mechanical means utilizing induced draft under non-positive pressure or forced draft under positive pressure.

Meter, Gas
An instrument installed by the company to measure the volume of Natural Gas delivered to a customer.

Meter Piping
Also known as, extension service pipe from the first fitting inside the building and the gas utility meter. Customer’s plumber is responsible to meet all company specifications, procedures and drawing requirements. A NYC Meter Piping Pressure Test Verification form will be required.

Multiple Occupancy Building
A structure, including row houses, enclosed within exterior walls of fire rated wall construction, erected and formed of component structural parts and designed to contain four or more individual dwelling units for permanent residential occupancy.

Odorant
Mercaptan, added to natural or LP gas in small concentrations to impart a distinctive odor. The odorant helps identify leaks on pipe and raises public awareness.

Pipeline
All parts of those physical facilities through which gas is moved in transportation, including pipe, valves, and other appurtenances attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies.

Plastic Pipe
Pipe made of medium or high-density polyethylene.

Plastic Tubing
Same as plastic pipe except that it is usually of smaller diameter and sized on the same system commonly used for copper tubing.

Pressure Regulator
A device placed in a gas line for reducing, controlling and maintaining the natural gas pressure required by the customer.

Project Center
On-line application for customers, contractors or any other interested party who wish to initiate a service request, view case status and receive email notifications on service request milestones upon key milestone completion from Con Edison’s Energy Service Organization. The application is designed to provide an interactive, self-service tool. Jobs successfully initiated through Project Center will automatically initiate a case with Con Edison and proactively notify the applicant via e-mail when key milestones have been completed.

Point of Gas Service Terminations

Residential Outdoor Gas Meter
- **Above Ground Entry**
  The point of service termination of Con Edison’s service pipe will be the outlet-side of the gas meter when the gas service enters the building above ground.
- **Below Ground Entry**
  The point of service termination of Con Edison’s service pipe will be outside of the building wall when the gas service enters the building below ground.
Residential Indoor Gas Meter
For buildings with basements the point of service termination of Con Edison’s service pipe will be the first fitting just inside the foundation wall. However, if the building does not have a basement, Con Edison will install its service pipe to the sleeved elbow unit installed by the customer and make the final connections outside the building wall.

Multi-Dwelling Residential, Commercial and Industrial
The point of service termination of Con Edison’s service pipe will be the property line or suitable sub-sidewalk space. Where a basement wall is located on the property line, Con Edison will install the service pipe and service head valve. The customer will supply and install the required wall sleeve.

Note: Above ground entry is the preferred method for all outdoor meter set-ups. Below ground entry is to be avoided and will not be accepted without prior Company approval. Requests for approval should be submitted through the assigned Commercial Service Representative.

Primary Air
The combustion air that mixes with the gas before it reaches the burner.

Qualified Installer
An individual who is qualified by Con Edison or an authority acceptable to Con Edison.

Radial
A distribution system with one source of gas supply. Also known as a one-way feed.

Secondary Air
The air externally supplied to the flame at the point of combustion.

Service Head Valve
The valve located at the head of the service. If the gas meters are outside, the service head valve is located on the riser. When gas meters are inside, the service head valve is located at a point just inside the building wall.

System Type - Distribution
Generally gas mains, gas services, and gas equipment that carry or control the supply of gas from the point of local supply to and including the gas sales meters. The Con Edison gas system operates at various pressures as indicated below:

Normal
Con Edison low pressure gas system customers, this pressure is a minimum of 4-inches of water column (WC). For medium and high gas pressure system customers, this pressure is 5-inches WC to 7-inches WC (¼ psig).

Elevated
Con Edison delivery pressure greater than 7-inches water column (WC) used by customer equipment. 7-inches WC (¼ psig)

Therm - A unit of heating value equivalent to 100,000 British thermal units (Btu).

Transportation Customer
A customer who uses a local distribution company's natural gas pipeline and distribution system but buys the natural gas commodity from a different supplier.

Vent Line Protection Device (VLP)
A device for preventing the flow of water into a gas service regulator vent installed in designated flood-prone areas.
**Governing Codes**

Customer’s piping and installations are to be installed in accordance with and approved by the authorities having jurisdiction and to comply with Con Edison specifications. If there is a conflict of rules, the company will make a final decision applicable to the situation.

Applicable codes are listed below.

1. **ANSI Z-223.1/NFPA 54 National Fuel Gas Code**
   AGA Distribution Center
   P.O. Box 79230
   Baltimore, MD 21279-0230

2. **Codes, Rules and Regulations of the State of New York**
   Title 16 Parts 230, 255, 261 and Title 12 Part 753 (Code 753)
   West Group
   P.O. Box 64833
   St. Paul, MN 55164-0833

3. **Department of Transportation Title 49 CFR Part 192**
   Superintendent of Documents U.S. Government
   Printing Office Washington, DC 20402

4. **ANSI B31.8 Code of Pressure Piping Gas**
   "Transmission and Distribution Piping System"
   American Society of Mechanical Engineers
   United Engineering Center
   345 East 47th St.
   New York, NY 10017

5. **Manual of Planning Standards for School Buildings — The New York State Education Department**
   University of the State of New York
   State Education Department
   Division of Educational Facilities Planning
   Albany, NY 12234

6. **The New York State Uniform Fire Prevention and Building Code**
   West Group
   P.O. Box 64833
   St. Paul, MN 55164-0833

7. **NYC Fuel Gas Code**
   New York City Fuel Gas Code

8. **New York City Fire Code**
   New York City Fire Department
## Gas Reference Specifications and Drawings

<table>
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<tr>
<th>Spec. No. or Dwg. No.</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>G-695</td>
<td>Supporting Gas Service Regulator and Metes</td>
<td>02/18/14</td>
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<tr>
<td>G-316 EO-7420-B</td>
<td>Installation of Class 250TC to Class 1000TC Diaphragm Gas Meters - Indoors</td>
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<tr>
<td>G-317 EO-7421-B</td>
<td>Installation of Twin Class 250 TC to Class 1000 Diaphragm Gas Meters - Indoors</td>
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<tr>
<td>G-413 EO-14158</td>
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<tr>
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<td>Pipe Type Saddle Support for Gas Regulator Installations</td>
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<td>G-690 EO-13977-C</td>
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<td>G-8096</td>
<td>Sealing the Annular Space between the Gas Service Pipe/Tubing and the Wall Sleeve, Old Service Pipe or Above Ground-Non Concrete Masonry Wall</td>
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<td>G-8209</td>
<td>Installation of Multiple Class 250TC Gas Meters – Indoors</td>
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<td>G-8094-9</td>
<td>Gas Equipment for Dual-Fuel Interruptible Service under Classification No.12 Priorities AB, C, D, and E</td>
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<td>G-2040</td>
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<td>G-2041 359677</td>
<td>Requirements for the Installation of Gas Utilization Equipment that Mixes Pressurized Oxygen with Natural Gas</td>
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## Gas Reference Specifications and Drawings

### Continued

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<td>G-702</td>
<td>Inspection, Testing, and Maintenance of Company-Owned Automatic</td>
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<td>G-703</td>
<td>Requirements for Branch Lines Supplying Multiple Regulators and/or</td>
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<td>EO-6799</td>
<td>Protective Covers for Gas Main and Service Installation</td>
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<tr>
<td>EO-1181</td>
<td>General Specification for Backfilling of Trench &amp; Small Openings</td>
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<td>EO-8085</td>
<td>General Backfill and Bedding Material for Excavation</td>
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<td>309495</td>
<td>Trench Excavation for Gas Main &amp; Services up to 350 PSIG</td>
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<td>G-8062</td>
<td>Extruded Polyolefin Coating on Steel Gas Pipe</td>
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<tr>
<td>G-11836-Ig3</td>
<td>Integrity Tests, Meter Turn-Ons and Turn-Offs, Meter Exchanges, and</td>
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<td>Restoration of Gas Service After Repairs</td>
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<td>G-699-1a</td>
<td>Installation of Gas Service Regulator Vent Line Protectors (VLPs)</td>
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<td>G-8217-1a</td>
<td>Flood-Prone Areas for the Installation of Gas Service Regulator</td>
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<td>Vent Line Protectors (VLPs)</td>
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<td>G-11837</td>
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<td>G-414</td>
<td>Installation of Twin Gas Regulators Indoors (1&quot; - 2&quot;)</td>
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<td>EO-14166</td>
<td>Installation of Twin Gas Regulators Indoors (1&quot; - 2&quot;)</td>
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<td>502163</td>
<td>Bumper Installation</td>
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<td>502164</td>
<td>Outdoor Installation of B-838 Gas Regulators – 2&quot; x 4&quot; Flanged for</td>
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<tr>
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<tr>
<td></td>
<td>Class 250TC Meters</td>
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</table>
Approved Gas Service Equipment Tables

Condition of Approval
The equipment listed in the following section has been approved by Con Edison for use in connection with gas service installations within the company’s service territory.
Providing a list of approved equipment does not relieve the customer from ascertaining that the equipment meets Con Edison’s specifications and also the requirements of the AHJ. Con Edison, by testing and/or approving gas service equipment, gives no warranty, expressed or implied, as to the adequacy, safety or other characteristics of the equipment, fitting or device, and assumes no responsibility with respect thereto. The information contained in the tables provided will be revised from time to time. It is the responsibility of the customer to ensure the information is the most current available. Contact your assigned Con Edison Commercial Services Representative for updates.

A. Special Installation Requirements
Con Edison will provide information regarding installation requirements for all high-pressure services larger than 2-inches. Elevated pressure of ¼ PSIG or 7-inches WC and higher, if available, requires Con Edison supplied service regulator that reduces gas main pressure to customer utilization equipment design pressure.

| Table 1 |
|-----------------|----------------|
| **PLUG VALVES FOR SERVICE HEAD INSTALLATION** | Nominal Size |
| Manufacturer | Nominal Size |
| Dresser Industries Inc. | 175 GTO-0004-161 | ¾” |
| | 175 GTO-0011-161 | 1” |
| | 175 GTO-0012-161 | 1 ¼” |
| | 175 GTO-0013-161 | 1 ½” |
| | 175 GTO-0006-161 | 2” |
| Nordstrom Valves Inc.*** | 142-T(Threaded End) | ¾”, 1”, 1 ¼”, 1 ½”, 2” *,3” *, 4” * |
| | 143-T(Flanged End) | 3” **, 4” ** |
| | 149, 169 w/ Hand Wheel | 6”, 8”, 10”, 12” |
| Walworth Company **** | 1796 T | 1”, 1 ¼”, 1 ½”, 2” |
| | 1797 F | 3” |
| | 1707 F, 1727 F w/ Hand Wheel | 6”, 8”, 10”, 12” |

**NOTE:** Wrench operated valves up to and including 4-inch must be of tamperproof construction
* For design operating pressures not exceeding 1 psig.
** For design operating pressures greater than 1 psig.
*** Rockwell equipment of the specified catalog or figure number is acceptable.
**** Figure 1796 and 1797, the manufacturer recommends changing existing non-tamperproof cap screw and replacing them with tamperproof cap screws at field site. The vendor’s change out recommendation instructions must be followed completely in order to maintain material warranty.
A Customer Guide to Natural Gas Service Installation

Consolidated Edison Co. Inc.

Table 1-A

<table>
<thead>
<tr>
<th>Manufacturer</th>
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<tr>
<td>Dresser Industries Inc.</td>
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<td>175 GTO-0011-161</td>
<td>1”</td>
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<tr>
<td></td>
<td>175 GTO-0012-161</td>
<td>1 ¼”</td>
</tr>
<tr>
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Table 2

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<td>Ballomax</td>
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<td>3BMF285RP</td>
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<td></td>
<td>4BMF285RP</td>
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<td>Kerotest</td>
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Table 3

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<td>2”</td>
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<tr>
<td>Nordstrom Valves Inc. *</td>
<td>142 (Threaded End)</td>
<td>1”, 1 ½”, 2”, 3”, 4”</td>
</tr>
<tr>
<td>(Lubricated)</td>
<td>1925</td>
<td>2”, 3”, 4”</td>
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<tr>
<td></td>
<td>143 (Flanged End)</td>
<td>3” **, 4” **</td>
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<tr>
<td></td>
<td>165</td>
<td>4”, 6”</td>
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<tr>
<td></td>
<td>1945</td>
<td>6”</td>
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<td></td>
<td>169</td>
<td>8”</td>
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<tr>
<td>Walworth Company *</td>
<td>1796</td>
<td>1”, 1 ½”, 2”</td>
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<tr>
<td>(Lubricated)</td>
<td>1749-F</td>
<td>2”, 3”, 4”</td>
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<td></td>
<td>1700-F</td>
<td>4”, 6”</td>
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<tr>
<td></td>
<td>1707-F</td>
<td>8”, 10”</td>
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</table>

* Lubricated valve with port
** For design operating pressures greater than 1 PSIG.
NOTE: Wrench operated valves up to and including 4-inch must be of tamperproof construction
* For design operating pressures not exceeding 1 psig.
** For design operating pressures greater than 1 psig.
*** Rockwell equipment of the specified catalog or figure number is acceptable.
**** Figure 1796 and 1979, the manufacturer recommends changing existing non-tamperproof cap screw and replacing them with tamperproof cap screws at field site. The vendor’s change out recommendation instructions must be followed completely in order to maintain material warranty.

<table>
<thead>
<tr>
<th>Table 4</th>
<th>METER VALVES (Lock-Wing Locks)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reference Drawings:</strong> EO-1685, G-316(aka EO-07420), G-317(aka E)-07421, G-425 (aka EO-9580)</td>
<td></td>
</tr>
<tr>
<td><strong>Manufacturer</strong></td>
<td><strong>Catalog or Figure Number</strong></td>
</tr>
<tr>
<td>Dresser Industries Inc</td>
<td>Style 275 (Lock Wing Lock)</td>
</tr>
<tr>
<td>Mueller Company</td>
<td>P-10-1 Shur-Stop 805002 805006</td>
</tr>
<tr>
<td>Mueller Company</td>
<td>H-11118-B</td>
</tr>
<tr>
<td>A.Y. McDonald</td>
<td>525 P</td>
</tr>
<tr>
<td>Jomar</td>
<td>T-175 LW (Lock Wing Ball)</td>
</tr>
</tbody>
</table>

¹ - Only approved for use on low pressure distribution piping (<12" WC).

<table>
<thead>
<tr>
<th>Table 5</th>
<th>METER BARS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Manufacturer</strong></td>
<td><strong>Catalog or Figure Number</strong></td>
</tr>
<tr>
<td>A-11 MO, 701212-2</td>
<td>1&quot; x 1&quot; x 1&quot;. 1 1/2&quot; centers for Class 250TC and 500TC meters with insulated union. (Req's swivels and swivel caps)</td>
</tr>
<tr>
<td>GA-11 MO, 730074-1</td>
<td>1&quot; x 1&quot; x 20LT, 6&quot; centers CMC* for Class 250TC meters with insulated union</td>
</tr>
<tr>
<td>GA-32 SSMO, 730500-1</td>
<td>1&quot; x 1&quot; x 30LT, 6&quot; centers CMC* with integral valve for multiple Class 250TC Installations</td>
</tr>
<tr>
<td>GA-11 MO, 730058-4</td>
<td>1&quot; x 1 1/4&quot; x 30LT, 8 1/2&quot; centers CMC* for Class 500TC meters with insulated union.</td>
</tr>
<tr>
<td>B-22 700298-2</td>
<td>2&quot; x 2&quot; x 1 1/2&quot;, 10&quot; centers for Class 1000TC meters (Req’s swivels and swivel caps)</td>
</tr>
<tr>
<td>CMB 20 LT-01</td>
<td>1&quot; x 1&quot; x 20LT, 6&quot; centers CMC* for Class 250TC meters with insulated union</td>
</tr>
<tr>
<td>6620 CDAC - A</td>
<td>1&quot; x 1&quot; x 20 LTO, 6&quot; centers Mueller C* for Class 250 TC meters with insulated union</td>
</tr>
<tr>
<td>6814 CDA</td>
<td>1&quot; x 1&quot; x 20 LTO, 6&quot; centers CMC* for Class 250 TC meters with insulated union</td>
</tr>
<tr>
<td>6722 ACDAC - A</td>
<td>1&quot; x 1&quot; x 20 LTO, 6&quot; centers CMC* with integral valve for multiple Class 250 TC installations</td>
</tr>
<tr>
<td>6410 By-Pass Meter Bar</td>
<td>1&quot; x 1&quot; x 20LT, 6&quot; centers for Class 250 meters with horizontal inlet and outlet; includes integral meter by-pass.</td>
</tr>
</tbody>
</table>

* CMC designates a “Complete Meter Connection” requiring no swivel offsets and caps.
### Table 6
**SWIVELS**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>1” x 20 Light</th>
<th>1 ¼” x 30 Light</th>
<th>1 ½” x 60 Light</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Meter Co.</td>
<td>01195 P014</td>
<td>2290 P016</td>
<td>01195 P028</td>
</tr>
<tr>
<td>A.Y. McDonald</td>
<td>4815-511</td>
<td>4815-547</td>
<td>N/A</td>
</tr>
<tr>
<td>Central Plastics</td>
<td>008-1200</td>
<td>010-30 1250-008</td>
<td>N/A</td>
</tr>
<tr>
<td>Hitachi Metals America</td>
<td>20 S1</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Richards mfg. Co.</td>
<td>OS-1-1-20LT</td>
<td>OS-1 ¼-1-30LT</td>
<td>OS-1 ½-1-60LT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Offset</th>
<th>Overall Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1”</td>
<td>3 ½” – 3 ¾”</td>
</tr>
<tr>
<td>1”</td>
<td>3 3/8” – 5 3/8”</td>
</tr>
</tbody>
</table>

### Table 7
**SWIVEL CAPS**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>P/N for 1”x 20 Light</th>
<th>P/N for 1 ¼”x 30 Light</th>
<th>P/N for 1 ½”x60 Light</th>
</tr>
</thead>
<tbody>
<tr>
<td>American Meter Co.</td>
<td>21737 P061</td>
<td>21737 P081</td>
<td>21737 P141</td>
</tr>
<tr>
<td>A.Y. McDonald</td>
<td>4815-507</td>
<td>4815-543</td>
<td>N/A</td>
</tr>
<tr>
<td>Central Plastics</td>
<td>015-0068</td>
<td>015-0070</td>
<td>007-0016</td>
</tr>
<tr>
<td>Hitachi Metals America</td>
<td>20 N</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Richards mfg. Co</td>
<td>N20LT</td>
<td>N30LT</td>
<td>N60LT</td>
</tr>
</tbody>
</table>

### Table 8
**VENT CAPS for REGULATOR and VENTED SLEEVE INSTALLATIONS**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Catalog or Figure Number</th>
<th>Nominal Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPSCO, Inc.</td>
<td>UVA-E-3/4, UVA-E-1</td>
<td>¾”, 1”</td>
</tr>
<tr>
<td></td>
<td>UVA-E-2</td>
<td>2”</td>
</tr>
<tr>
<td></td>
<td>UVA-E-3</td>
<td>3”</td>
</tr>
<tr>
<td></td>
<td>UVA-E-4</td>
<td>4”</td>
</tr>
<tr>
<td>Advanced Engineering Corp.</td>
<td>GV-3/4</td>
<td>¾”</td>
</tr>
<tr>
<td>Richards Manufacturing Co.</td>
<td>GV-1</td>
<td>1”</td>
</tr>
<tr>
<td>Carolina Mouldings Inc.</td>
<td>RV-250</td>
<td>¾”, 1”</td>
</tr>
<tr>
<td>Control Associates</td>
<td>Y602-23, Y602-25</td>
<td>¾”, 1”</td>
</tr>
</tbody>
</table>

### Table 9
**METER ELBOWS**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Catalog or Figure Number</th>
<th>Nominal Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPSCO, Inc.</td>
<td>90 DEG. Meter Elbow</td>
<td>1” x 6” x 8”</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1” x 4 ½” x 14”</td>
</tr>
<tr>
<td>Advanced Engineering Corp.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Richards Manufacturing Co.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Table 10
**COMPRESSION END FITTING / BOLTED COUPLING for STEEL PIPE**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dresser Mfg. Division *</td>
<td>90 Universal (Restraint)</td>
<td>¾&quot;, 1&quot;, 1 ¼&quot;, 1 ½&quot;, 2&quot;</td>
</tr>
<tr>
<td></td>
<td>711 (Restraint)</td>
<td>3&quot;, 4&quot;, 6&quot;, 8&quot;, 10&quot;, 12&quot;</td>
</tr>
<tr>
<td></td>
<td>38 or 40</td>
<td>10&quot;, 12&quot;</td>
</tr>
<tr>
<td>Smith Blair</td>
<td>Style EZ</td>
<td>3&quot;, 4&quot;, 8&quot;</td>
</tr>
<tr>
<td></td>
<td>Standard IPS Coupling</td>
<td>10&quot;, 12&quot;</td>
</tr>
</tbody>
</table>

### Table 11
**INSULATING COUPLING (STRAIGHT)**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dresser Mfg. Division *</td>
<td>90 (Seal and Restraint)</td>
<td>¾&quot;, 1&quot;, 1 ¼&quot;, 1 ½&quot;, 2&quot;</td>
</tr>
<tr>
<td>Rockwell International Co.</td>
<td>39</td>
<td>3&quot;, 4&quot;, 6&quot;, 8&quot;, 10&quot;, 12&quot;</td>
</tr>
<tr>
<td>Norton-McMurray Mfg., Co. (NORMAC)</td>
<td>Style 1 **</td>
<td>¾&quot;, 1&quot;, 1 ¼&quot;, 1 ½&quot;, 2&quot;</td>
</tr>
<tr>
<td>Smith Blair</td>
<td>Style EZ</td>
<td>3&quot;, 4&quot;, 6&quot;, 8&quot;</td>
</tr>
<tr>
<td></td>
<td>Standard IPS Coupling</td>
<td>10&quot;, 12&quot;</td>
</tr>
</tbody>
</table>

### Table 12
**REDUCING COUPLING (CONDUCTIVE)**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dresser Mfg. Division *</td>
<td>90 Universal (Restraint)</td>
<td>1&quot; x ¾&quot;, 1 ¼&quot; x ¾&quot;, 1 ¾&quot; x 1&quot;, 1 ½&quot; x 1&quot;, 2&quot; x 1 ½&quot;, 2&quot; x 1 ¼&quot;</td>
</tr>
<tr>
<td></td>
<td>711 (Restraint)</td>
<td>1 ½&quot; x 1&quot;, 1 ¾&quot; x 1 ¼&quot;, 2&quot; x 1&quot;</td>
</tr>
</tbody>
</table>

### Table 13
**ELBOWS (45 and 90 DEGREE)**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dresser Mfg. Division *</td>
<td>90 Universal (Restraint)</td>
<td>¾&quot;, 1&quot;, 1 ¼&quot;, 1 ½&quot;, 2&quot;</td>
</tr>
<tr>
<td></td>
<td>711 (Restraint)</td>
<td>3&quot;</td>
</tr>
</tbody>
</table>

*Yellow-marked band on Dresser product for Identification “Seal & Restraint”
**With 1/8” Steel Allen Hex Socket Pipe Plug
### Table 14
**INSULATING ADAPTERS & UNIONS**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Style</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dresser Mfg. Division</td>
<td>90</td>
<td>Male Insulok Adapter ¾&quot;, 1&quot;, 1 ½&quot;</td>
</tr>
<tr>
<td>Mueller Company</td>
<td>P-5-12</td>
<td>Insulated Union, NTP both Ends, 2&quot;</td>
</tr>
<tr>
<td>700830</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 15
**SLEEVED ELBOW UNIT**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Ben Yuter Company, Inc.</td>
<td>90 Degree Gas Service Elbow Unit w/ Seamless</td>
</tr>
<tr>
<td>799 Broadway, Suite 310</td>
<td>Steel Pipe Sleeve</td>
</tr>
<tr>
<td>New York, NY 10003-6811</td>
<td>¾&quot;, 1&quot;, 1 ½&quot;, 2&quot; 3&quot;</td>
</tr>
<tr>
<td>Richards Manufacturing Co.</td>
<td></td>
</tr>
<tr>
<td>517 Lyons Avenue</td>
<td></td>
</tr>
<tr>
<td>Irvington, NJ 07111-4717</td>
<td></td>
</tr>
<tr>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

* The manufacturers listed are suppliers of the sleeved elbow unit for the listed sizes. Any piping fabricator capable of assembling a sleeved elbow unit in accordance with **Drawing Specification EO-12790** titled "Rigid Sleeved Elbow Unit 1” to 16” up to 99 psig max Operating pressure” may do so. Refer to Appendix.

### Table 16
**FLOOR SUPPORT BRACE**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compuflex, Inc.</td>
<td>1.9&quot; ID x 6&quot; OD for 1” Sleeved Elbow Unit</td>
</tr>
<tr>
<td>PO Box 56</td>
<td>2.875&quot; ID x 6&quot; OD for 1 ½” Sleeved Elbow Unit</td>
</tr>
<tr>
<td>Hudson, NY 12534-0056</td>
<td></td>
</tr>
</tbody>
</table>

### Table 17
**RISER BENDS (STEEL SERVICE PIPE)**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Drawing</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UPSCO, Inc.</td>
<td>10450</td>
<td>¾&quot;, 1&quot;, 1 ½” Coated w/ a Con Edison approved coating.</td>
</tr>
<tr>
<td>22-24 Central Street</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Moravia, NY 13118-3425</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 18
**FLANGE INSULATING KITS**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Nominal Service Pipe size</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI Company</td>
<td>Linebacker</td>
<td>2&quot;, 4&quot;, 6&quot;, 8&quot;</td>
</tr>
<tr>
<td>Stuart Steel Production Corp.</td>
<td>Linebacker</td>
<td></td>
</tr>
<tr>
<td>Central Plastic</td>
<td>Jock</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** A written approval must be obtained from Gas Operations (Corrosion Control) is required for the purchase of competitive products.
### Table 19  
**THERMIT WELD EQUIPMENT**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model No.</th>
<th>Pipe Size</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CADWELL</strong></td>
<td>CAHAA-1GA</td>
<td>¾” thru 3 ½”</td>
<td>Mold(Welder) for attaching wire</td>
</tr>
<tr>
<td></td>
<td>CAHAA-1G</td>
<td>4” thru 12”</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CAB-133-1H</td>
<td>¾” thru 12”</td>
<td>Adapter Sleeve for use on wire sizes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AWG No. 14 thru No. 10 Solid</td>
</tr>
<tr>
<td></td>
<td>CAT-320</td>
<td>¾” thru 12”</td>
<td>Flint gun for igniting welding powder</td>
</tr>
<tr>
<td><strong>THERM-O-WELD</strong></td>
<td>M-101</td>
<td>¾” thru 3 ½”</td>
<td>Mold(Welder) for attaching wire sizes</td>
</tr>
<tr>
<td></td>
<td>M-100</td>
<td>4” thru 12”</td>
<td>AWG No. 14 thru No. 6 Solid</td>
</tr>
<tr>
<td></td>
<td>A-200</td>
<td>¾” thru 12”</td>
<td>Adapter sleeves for use on wire sizes</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>AWG No. 14 thru No. 10 Solid</td>
</tr>
<tr>
<td></td>
<td>15-P</td>
<td>¾” thru 12”</td>
<td>Standard Therm-O-Weld power</td>
</tr>
<tr>
<td></td>
<td>A-309 P</td>
<td>¾” thru 12”</td>
<td>Flint gun for igniting welding powder</td>
</tr>
</tbody>
</table>

### Table 20  
**DUAL-FUEL CHANGEOVER CONTROLS**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model Cat No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPC Temperature</td>
<td>929120-00</td>
<td>Temperature Controller</td>
</tr>
</tbody>
</table>

### Table 21  
**ANODELESS RISER BENDS (PLASTIC SERVICE PIPE)**

<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model or Type No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERFECTION PIPE</td>
<td>75197</td>
<td>¾” IPS THRD x ½” CTS .090” Wall Thickness</td>
</tr>
<tr>
<td></td>
<td>75607</td>
<td>1” IPS THRD 1” CTS .090” Wall Thickness</td>
</tr>
<tr>
<td></td>
<td>79055</td>
<td>1 ½” IPS THRD 1 ¼” CTS .090” Wall Thickness</td>
</tr>
<tr>
<td></td>
<td>79437</td>
<td>1” IPS THRD x 1” IPS, SDR-11 (Bracket Included)</td>
</tr>
<tr>
<td></td>
<td>78302</td>
<td>2” IPS THRD x 2” IPS, SDR-11</td>
</tr>
<tr>
<td></td>
<td>78512</td>
<td>3” IPS THRD x 3” IPS, SDR-11</td>
</tr>
<tr>
<td></td>
<td>79912</td>
<td>3” IPS FLG x 3” IPS, SDR-11</td>
</tr>
<tr>
<td></td>
<td>79964</td>
<td>4” IPS THRD x 4” IPS, SDR-11</td>
</tr>
<tr>
<td></td>
<td>79965</td>
<td>4” IPS FLG x 4” IPS, SDR-11</td>
</tr>
<tr>
<td>RW Lyall &amp; Co, Inc.</td>
<td>Con Edison 090040-A</td>
<td>1 ½” IPS THRD x 1 ¼” CTS .090” Wall Thickness</td>
</tr>
<tr>
<td></td>
<td>Con Edison 070030-A</td>
<td>1” IPS THRD 1” CTS .090” Wall Thickness</td>
</tr>
<tr>
<td></td>
<td>Con Edison 060010-A</td>
<td>¾” IPS THRD x ½” CTS .090” Wall Thickness</td>
</tr>
</tbody>
</table>

Plastic Pipe to be in compliance with Gas Specification G-8100, Section 11 – Appendix F
Table 22
LINK SEALS
<table>
<thead>
<tr>
<th>Manufacturer</th>
<th>Model</th>
<th>Nominal Service Pipe Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>THUNDERLINE</td>
<td>LS-200-C</td>
<td>½” to 1 ½”</td>
</tr>
<tr>
<td></td>
<td>LS-300-C</td>
<td>¾” to 4”</td>
</tr>
<tr>
<td></td>
<td>LS-425-C</td>
<td>3” to 12”</td>
</tr>
<tr>
<td></td>
<td>LS-475-C</td>
<td>2” to 8”</td>
</tr>
<tr>
<td></td>
<td>LS-525-C</td>
<td>10” to 12”</td>
</tr>
<tr>
<td>Products and Systems Pipeline</td>
<td>IL-200</td>
<td>½” to 1 ½”</td>
</tr>
<tr>
<td>(Inner-Linx)</td>
<td>IL-300</td>
<td>¾” to 12”</td>
</tr>
<tr>
<td></td>
<td>IL-425</td>
<td>3” to 12”</td>
</tr>
<tr>
<td></td>
<td>IL-475</td>
<td>2” to 12”</td>
</tr>
<tr>
<td></td>
<td>IL-525</td>
<td>10” to 12”</td>
</tr>
</tbody>
</table>

Table 23
GAS BOOSTER EQUIPMENT

<table>
<thead>
<tr>
<th>Item</th>
<th>Manufacturer</th>
<th>Type / Model No.</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Head Valve</td>
<td>See Table 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas Meter Valve</td>
<td>See Table 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Pressure Gas Switch</td>
<td>Karl Dungs Inc.</td>
<td>GML-A4-4-4</td>
<td>¼”</td>
</tr>
<tr>
<td></td>
<td>Eclipse</td>
<td>SE32D / TA31A11**</td>
<td>¼”</td>
</tr>
<tr>
<td></td>
<td>ASCO</td>
<td>PRLE-153-P1**</td>
<td>¼”</td>
</tr>
<tr>
<td></td>
<td>Mercoid Controls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vent</td>
<td>See Table 8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check Valve</td>
<td>Eclipse</td>
<td>Series 1000</td>
<td>½” – 4” THRD</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3” – 8” FLGD</td>
</tr>
<tr>
<td></td>
<td>Bryan Donkin</td>
<td>590 NRV Rollchek</td>
<td>2”, 3” SCREW</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3”,4”, 6” FLGD</td>
</tr>
</tbody>
</table>

**- Indicates explosion proof model

Table 24
PROTECTIVE EQUIPMENT for COMPRESSED OXYGEN and NATURAL GAS MIXTURES

<table>
<thead>
<tr>
<th>Manufacturer/Distributor</th>
<th>Type/Model or Part No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check-All Valve Mfg. Co.</td>
<td>Universal Low-Pressure Check Valve Type – Style UN-3</td>
<td>2” UN-3-200-BB-1/8</td>
</tr>
<tr>
<td>Distributed By: Valley Technical Sales One Hollywood Avenue, Suite 2A Ho-Ho-Kus, NJ 07423-1445 201.670.8070</td>
<td>For ½” – 2” Sizes</td>
<td>1 ¼” UN-3-125-BB-1/8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1” UN-3-100-BB-1/8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>¾” UN-3-075-BB-1/8</td>
</tr>
<tr>
<td></td>
<td></td>
<td>½” UN-3-050-BB-1/8</td>
</tr>
<tr>
<td>Harris Flashback Arrestor*</td>
<td>Model 88-5FBT p/n 4301650</td>
<td>Torch Mounted</td>
</tr>
<tr>
<td></td>
<td>Model 88-5FBT p/n 4301651</td>
<td>Regulator Mounted</td>
</tr>
<tr>
<td>Western Flashback Arrestor*</td>
<td>Flashback Arrestor Set p/n FA-10</td>
<td>Torch Mounted</td>
</tr>
<tr>
<td></td>
<td>Flashback Arrestor Set p/n FA-30</td>
<td>Regulator Mounted</td>
</tr>
<tr>
<td>Smith Flashback Arrestor*</td>
<td>Smith Oxygen &amp; Fuel Gas Pair p/n H754</td>
<td>Torch Mounted</td>
</tr>
<tr>
<td></td>
<td>Smith Oxygen &amp; Fuel Gas Pair p/n H754</td>
<td>Regulator Mounted</td>
</tr>
</tbody>
</table>

* - To be used with G-Tech TB-15 or TB-30 Torch Booster Reference G-2041
Gas Integrity Test & Turn-On Affidavit - Restoration Repair

This certifies that the gas piping in the building indicated below has successfully passed a leakage test as prescribed by the local authority having jurisdiction.

(Building Address / City or Town / Zip Code)

Complete All Sections That Apply  Blue Card No.

Lockable valves and test ports installed / exist at the base of each riser.  YES  NO (Circle One)

Gas Turn-On requested for the following equipment (Specify below);

__________________________________________________________

Contractor to Check Appropriate Corrective Condition:

I have repaired and tested,

_____ Leak at gas equipment (specify unit or equipment)

_____ Control Valve  _____ Pilot Valve  _____ Appliance Valve

_____ Hood Draft  _____ Appliance Regulator  _____ Flue Connection

_____ Other (Specify) and provide details for above items checked

This certifies that all gas piping is complete and continuous up to the appliance, including appliance control valves, or end of use equipment in affected apartments or areas.  YES  NO (circle one)

It is also certified that in the affected area(s):

- All areas containing gas utilization equipment (e.g. boiler room, laundry room) have been inspected and that the equipment gas valves have been closed.  YES  NO (circle one)

- All apartments containing gas appliances have been inspected and the appliance valves have been closed.  YES  NO (circle one)

- All open-ended valves, stubs test connections, purge connections, or any other piping or fittings which could be left open, have been closed gas tight with a threaded plug or cap. For premises which have meters in the apartments, the meter valves have been left open, so that the integrity test is complete up to the appliance valves.  YES  NO (circle one)

In addition, I accept responsibility for the gas-in of any end of use equipment or appliances not gassed-in by Con Edison and identified above for turn-on.  YES  NO (circle one)

(Plumbing Contractor Company Name / Address / Telephone #)

(Plumber’s Signature / License # / Date)
New York City
Gas Meter Piping
Pressure Test Verification
(Note: This Affidavit does NOT replace a Blue Card)
Exhibit-B

AFFIDAVIT

This certifies that the gas meter piping installed between the gas service head valve and the gas meter connection.

Located at:________________________________________________________

Lot No:___________________________________________________________

Block No:________________________________________________________

Owner:___________________________________________________________

Has successfully passed a leakage test for _____ hour(s) at pressure of _____ psig

On ________________________________

(Date)

TEST PERFORMED BY

Plumber’s Signature:_______________________________________________

License No.:______________________________________________________

Plumber Contractor:_______________________________________________

Accepted for Con Edison By:_________________________________________

Date:______________________________

Note: Form is to be used for company documentation by the performing plumber of record for all oil-to-gas conversion, natural gas generators, upgrades and or swing over work, certification.
Westchester County
Distribution Piping Pressure Test Verification
(Note: Only valid in those municipalities where a Blue Card is not normally issued) Exhibit-C

AFFIDAVIT

This certifies that the gas distribution piping installed inside the building

Located at:______________________________

Lot No:______________________________

Block No:______________________________

Owner:______________________________

Has successfully passed a leakage test for _____ hour(s) at pressure of _____ psig

On ______________________

(Date)

TEST PERFORMED BY

Plumber’s Signature:______________________________

License No.:______________________________

Plumber Contractor:______________________________

Accepted for Con Edison By:______________________________

Date:______________________________
AFFIDAVIT

This certifies that the gas meter piping installed inside the building

Located at:________________________________________________________

Lot No:___________________________________________________________

Block No:_________________________________________________________

Owner:___________________________________________________________

Has successfully passed a leakage test for _____ hour(s) at pressure of _____ psig

On __________________________

(Date)

TEST PERFORMED BY

Plumber’s Signature:_______________________________________________

License No.:______________________________________________________

Plumber Contractor:_______________________________________________

Accepted for Con Edison By:________________________________________

Date:__________________________
Welders Affidavit

Exhibit-E

Contractors Name_____________________________________________________

Address________________________________________________________________

This certifies that all welding on customer gas piping on premises

Located at:________________________________________________________________

Lot No:__________________________________________________________________

Owner:__________________________________________________________________

Has been performed by a welder who has previously been qualified in accordance with
the stated welding requirements and all welding has been performed according to those
requirements.

The welder has been qualified in accordance with either ASME Section IX Boiler
Pressure Vessel Code or API 1104 requirements, and such qualifications shall be
performed by an independent inspection agency. Proof of such qualification shall be
attached to this affidavit.

Date_________________________ Signed____________________________________

Welder

__________________________________________

Plumbing Contractor

__________________________________________

LIC No

__________________________________________

Owner

Accepted for the Company by:______________________________________________

Date:____________________________
Consolidated Edison Company of New York, Inc
Certificate of Compliance
Exhibit-F

Dwelling Converting to Gas / Electric Heating
One of the following certificates shall be completed and signed:

a) I __________________________________________ (Owner)
am aware that the Minimum Insulation Standards for Standards for Dwellings converting to Gas / Electric Space Heating requires my house to have storm doors, storm windows and at least R-19 (usually six inches) roof insulation.

I certify that my building at __________________________________________ (Location)
Meets those requirements or that I have obtained a waiver and understand that should my building be found not in compliance, a 25 percent surcharge on my Company Bill may be imposed or gas / electric service may be disconnected.

The undersigned attests that all statements and representations contained in this certificate are true and accurate.

________________________________________
Signature of Owner

________________________________________
Address

b) I have inspected the building at________________________________________ (Location)
Owned by________________________________________ and certify that it meets the requirements of the Minimum Installation Standards for Dwellings Converting to Gas / Electric Space Heating.

The undersigned certifies that a properly executed copy of this certificate will be delivered to the owner and further attests that all statements and representations contained in this certificate are true and accurate.

________________________________________
Date
________________________________________
Signature of Contractor

Accepted for the Company By:________________________________________

__________
Date
Request for Waiver
Minimum Installation Standard
Exhibit-G

As the owner of the existing

☐ 1 Family Residence  ☐ 2 Family Residence
☐ 3 Family Residence  ☐ 4 Family Residence

At ________________________________
(Location)

I request a waiver from Con Edison of the Minimum Installation Standards for Existing Building Converting to Gas or Electric Space Heating issued by the New York Public Service Commission for the following reason(s):

☐ Compliance with the Standards will result in a payback period of greater than seven years. (Two estimates are attached)

☐ The dwelling is a historical building.

☐ The overall heat loss of the building does not exceed the total heat loss which would result from conformance with the Minimum Insulation Standards. (An Engineering Certificate is attached)

_____________________________  ______________________________
(Signature of Owner)            (Date)

_____________________________  ______________________________
(Address)                      (Address)

Received by Consolidated Edison Company of New York, Inc

_____________________________
(Name and Title of Representative)

_____________________________
(Date)
Dear Customer/Contractor:

Thank you for your interest in natural gas. In addition to any applicable local, city, state or federal codes, Con Edison has certain requirements that you must comply with in order to obtain gas service from us.

We have revised our Interim Gas Checklist and Final Gas Checklist, which are now two separate documents. Please note the requirements have changed. Included are additional requirements for customers who are converting from oil to natural gas. These checklists are tools which will assist you in complying with our requirements and help avoid delays in your project and/or failed Con Edison inspections.

Following completion of your associated work and our receipt of a completed Interim Gas Checklist, we will make arrangements with you/your contractor to perform an inspection of the work. In addition, we will perform a second inspection following our receipt of your completed Final Gas Checklist and the associated work.

As always, we appreciate your interest in gas and the opportunity to work with you on your project. Please feel free to contact us if you have any questions or concerns.
### INTERIM GAS CHECKLIST (REQUEST FOR INSPECTION)

**Further Action Required for Completion of Oil to Gas Conversion Work**

| Job Address: __________________________ | Borough: ______ Case No: ______ |
| Contractor Name: ______________________ | Phone No: ______________________ |

*Please indicate "Y" in the applicable box for completed items and "N/A" where items do not apply.*

<table>
<thead>
<tr>
<th>Action Description</th>
<th>To be Completed by Contractor</th>
<th>For Con Edison Use Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sweep/sleeve installed and grouted flush</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>Customer pipe installed between property line and building line</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Underground steel piping is properly coated and cathodically protected (between property line and building line)</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Customer’s trenches backfilled</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Swing-over piping installed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pressure test affidavit for swing-over pipe</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Con Edison Hold Harmless Letter signed by customer</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**OIL TO GAS CONVERSION WORK**

<table>
<thead>
<tr>
<th>Con Edison Natural Gas Commitment Letter signed by customer</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Any required payments (other than security deposit) (e.g. customer contribution, accommodation costs, EDF costs)</td>
<td></td>
</tr>
</tbody>
</table>

For oil to gas conversions in Manhattan, Bronx and Queens, please e-mail this form to Con Edison’s Gas Conversion Group at [OTG@coned.com](mailto:OTG@coned.com)

For all other gas service requests, please email this form to Con Edison (Energy Services) using the contact information provided in the following link: [coned.com/es/contact_us.asp](http://coned.com/es/contact_us.asp)
# FINAL GAS CHECKLIST (REQUEST FOR INSPECTION)

**Further Action Required for Completion of Oil to Gas Conversion Work**

**Job Address:** __________________________ **Borough:** _____ **Case No:** ____________

**Contractor Name:** ______________________ **Phone No.:** ______________________

*Please indicate “Y” in the applicable box for completed items and “N/A” where items do not apply.*

<table>
<thead>
<tr>
<th>Action Description</th>
<th>To be Completed by Contractor</th>
<th>For Con Edison Use Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Cert./Municipal Affidavit Issued (# __)</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Pressure testing affidavit</td>
<td>Y</td>
<td>N/A</td>
</tr>
<tr>
<td>Certificate of compliance</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Welder affidavit</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Gas integrity test and turn-on affidavit</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Gas booster equipment installed</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Volume correctors are required for all turbine meters and all elevated pressure</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>rotary and diaphragm meters</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volume corrector location meets all clearances</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Turbine meters and rotary meters larger than 16M require temperature well</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>downstream of meter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proper signage displayed for multiple gas services</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Adequate air supply for gas equipment ANSI Z223-1</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Ventilation as required in section IV in Gas Yellow Book</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Regulator vents must be located minimum of 18” from grade to center line of pipe</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>and also 18” away from any intake vents or other locations where gas can enter a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>building</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Metering location meets all clearances</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Meter bar level, supported and part supplied marked</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Head of Service that is higher than 6 ft. require valve operator, permanent ladder</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>or platform</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Load piping tied to meter bar</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Outdoor piping painted</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Gas piping sleeved &amp; caulked between building &amp; distribution piping</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>All risers &amp; appliances have appropriate isolation valves installed and accessible</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Each gas connection for future appliances must have a separate lockable control</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>valve that is currently off, locked and plugged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gas appliance connected &amp; ready to operate</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Commercial equipment on castors must have restraining chain installed</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Heating/AWH flue pitched &amp; connected to chimney</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Heating/AWH flue checked for proper draft</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Vehicle protection bumpers installed</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>Appropriate insulated/non-insulated couplings or flange kits installed</td>
<td>Y</td>
<td></td>
</tr>
<tr>
<td>OIL TO GAS CONVERSION WORK</td>
<td>Application for Service signed by Customer</td>
<td>Any required security deposit payments</td>
</tr>
</tbody>
</table>

For oil to gas conversions in Manhattan, Bronx and Queens, please e-mail this form to Con Edison's Gas Conversion Group at OTG@coned.com. For all other gas service requests, please scan and upload this form into your case via Project Center at https://apps.coned.com/esweb/login.aspx
Ways to Pay your Bill

Our fast, efficient, and convenient payment options make it easy for you to do business with us. In addition to the options listed below, please visit http://www.coned.com/customercentral/paymentoption.asp to see what option works best for you.

In Person
Customer Service Walk-In Centers are open Monday through Friday from 8:30 a.m. to 5 p.m.

- **Bronx**
  448 East Fordham Road – near Third Avenue

- **Brooklyn**
  One Metrotech Center at National Grid – Jay Street

- **Manhattan**
  122 East 124th Street – at Park Avenue

- **Queens**
  89-67 162 Street – located in the National Grid Office

- **Staten Island**
  1 Davis Avenue – corner of Richmond Terrace (Exact payments only).

- **Westchester (Mount Vernon)**
  One Pathmark Plaza between 2nd & 4th Avenues – located in Pathmark Store

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**e* bill:** Good for you, good for the environment!
e*bill is a free and easy way to receive, view, and pay your Con Edison bill online while protecting the environment. More than a million customers now pay or receive their energy bills electronically — saving more than 112,000 pounds of paper and more than 1,300 trees, and preventing the release of more than 6,300 pounds of greenhouse gases each year. Use the green calculator located at www.payitgreen.org and see how receiving and paying your bill electronically helps reduce your carbon footprint.

---

**Direct Payment**
With nothing to mail, no checks to write, and no stamps to buy, Con Edison's Direct Payment Plan saves you time and money. It's easy, simple, free, and convenient.

---

**Pay-by-Internet**
If you have a bank account and access to the Internet, you can use the Pay-by-Internet program. The program is a secure and free way to transmit payment directly from your account.
### Revisions

**Updates, Additions and Omissions – September, 2014**

<table>
<thead>
<tr>
<th>Page No.</th>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>-</td>
<td>Changed Revision Date and updated Edition Year.</td>
</tr>
<tr>
<td>6</td>
<td>TOC/Section 1</td>
<td>Added “O” – Flat Rate Policy.</td>
</tr>
<tr>
<td>6</td>
<td>TOC/Section 1</td>
<td>Added “P” – Termination and Reconnection of Gas Service.</td>
</tr>
<tr>
<td>7</td>
<td>TOC/Section 4</td>
<td>Added “I” – Commercial &amp; Industrial Equipment Interaction.</td>
</tr>
<tr>
<td></td>
<td>TOC/Reference Material</td>
<td>Added &quot;Westchester County-Meter Piping Pressure Test Verification form, re-numbered Page No.’s and changed Exhibit Titles.</td>
</tr>
<tr>
<td></td>
<td>TOC Revisions</td>
<td>Added Updates, Additions and/or Omissions (July, 2014).</td>
</tr>
<tr>
<td>10</td>
<td>-</td>
<td>Changed No. 6 in Step-2 to read “Gas Cost Estimates” are….</td>
</tr>
<tr>
<td>11</td>
<td>-</td>
<td>Changed No. 5 in Step-4 to reflect new Page. No.’s.</td>
</tr>
<tr>
<td>23</td>
<td>Section 1 - C</td>
<td>Changed to read “are valid six (6) months”.</td>
</tr>
<tr>
<td>25</td>
<td>Section 1 – M</td>
<td>Changed Exhibit and associated Page No.’s.</td>
</tr>
<tr>
<td>26</td>
<td>Section 1 – M</td>
<td>Deleted d) Con Edison requires a “Statement of chimney Service” in NYC and Westchester County for these installations that are converting to gas home heating.</td>
</tr>
<tr>
<td>27</td>
<td>Section 1</td>
<td>Added Section “O” titled “Flat Rate (Maintain integrity of gas piping during building swing-over)”. Added Section “P” titled “Termination and Reconnection of Gas Service”.</td>
</tr>
<tr>
<td>28</td>
<td>Section 2 – A</td>
<td>Changed No. 6 to read “Gas services are to be properly sleeved and vented per EO-4890 titled “Service Pipe / Tubing and Service Sleeve through Vault, Open Arealove, Open Area under Stairs, Under Enclosed Area and Vaulted Basement”. If the customer elects to build and/or add an extension over an existing gas service, the customer will bear the full cost to sleeve and vent the existing gas service or the full cost to off-set same.”</td>
</tr>
<tr>
<td>30</td>
<td>Section 2 – C</td>
<td>Added bullet: • The company has the right to refuse service and make the customer change out the piping at customer / plumber’s expense when the piping size is found to be inadequately sized.</td>
</tr>
<tr>
<td>32</td>
<td>Section F</td>
<td>Changed g) tracer wire from yellow to “red”.</td>
</tr>
<tr>
<td>34</td>
<td>Section 2 – J-B</td>
<td>b) Westchester County b) Changed Exhibit and associated Page No.’s. Updated “Note” - Replace “in excess of LP” with “not Distribution Piping” and added “.</td>
</tr>
<tr>
<td>36</td>
<td>Section 2 – N</td>
<td>Added bullet(s): • Steel services installed prior to 1972 that have been disconnected due to unplanned work (e.g. leak repairs, contractor damages, no gas investigations, removing a blockade from a service, etc.) shall be replaced per the requirements in Section 2 of the Yellow Book. • PPE plastic, copper, &amp; steel services installed after 1971 that have been disconnected due to unplanned work (e.g. leak repairs, contractor damages, no gas investigations, removing a blockade from a service, etc.) may be reconnected by ConEdison after the service pipe is pressure tested from the point of disconnect to the service head valve per Section 2(M) of the Yellow Book.</td>
</tr>
<tr>
<td>Section</td>
<td>Added/Changed</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Section 2 - N</td>
<td>b) Changed Page No. for Exhibit Reference.</td>
</tr>
<tr>
<td>40</td>
<td>Section 2 – R Emergency Natural Gas Generator</td>
<td>a) Added: In New York City, where a building is required to maintain emergency power equipment i.e. elevator bank, emergency lighting, fire pumps and the customer elects natural gas as the fuel source for the emergency generator, the customer is required to install a separate gas service and shut-off valve as per NYC Fire Department Rule. The Customer shall pay all costs associated for the second gas service under Excess Distribution Facility (EDF). See “Rates and Terms of Service” (pg. 24) and Special Services Provided at Cost (pg. 25) of this guide. b) Added: Where a customer elects to install a natural gas generator for storm and natural disaster preparedness and the existing gas service is no longer adequate, the Customer shall pay all costs associated with the installation including, if necessary, all costs for system reinforcement, gas mains and additional gas service. See “Rates and Terms of Service” (pg. 24) and Special Services Provided at Cost (pg. 25) of this guide.</td>
</tr>
<tr>
<td>43</td>
<td>Section 3 – C</td>
<td>Added “for residential usage” and changed font to BOLD and red.</td>
</tr>
<tr>
<td>45</td>
<td>Section 4 – A</td>
<td>3. Added “piping for a gas diaphragm” and “For rotary gas meters, refer to applicable gas meter drawing specifications”.</td>
</tr>
<tr>
<td>47</td>
<td>Section 4 – C</td>
<td>Under b) Indoor Installations: No. 4 Changed to read “Gas meters may not be placed within” three feet (3’) of either side of an electric meter.</td>
</tr>
<tr>
<td>47</td>
<td>Section 4 – C</td>
<td>Under b) Indoor Installations: No. 5 Added “for large general, mixed-use buildings as per NYC Fuel Gas Code, Appendix G).”</td>
</tr>
<tr>
<td>49</td>
<td>Section 4 – I</td>
<td>Added new Section I titled “Commercial &amp; Industrial Customer Equipment Interaction with Con Edison Gas Regulator and Gas Meter”.</td>
</tr>
<tr>
<td>59</td>
<td>Gas Reference Definitions</td>
<td>Added new “Meter Piping” Definition. Meter Piping: Also known as, extension service pipe from the first fitting inside the building and the gas utility meter. Customer's plumber is responsible to meet all company specifications, procedures and drawing requirements. A NYC Meter Piping Pressure Test Verification form will be required.</td>
</tr>
<tr>
<td>62</td>
<td>Gas Reference Specifications and Drawings</td>
<td>G-695 Updated to reflect most current revision date (02/18/2014). 308657 R8 Updated to reflect most current revision date (07/15/2014). 361571 R4 Updated to reflect most current revision date (07/15/2014). 361693 R3 Updated to reflect most current revision date (07/15/2014). G-690-R5 – EO-16310-B Updated to reflect most current revision date (07/15/2014). EO-14134-C Updated to reflect most current revision date (01/28/2014).</td>
</tr>
</tbody>
</table>
## Gas Reference Specifications and Drawings

<table>
<thead>
<tr>
<th>Revision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EO-16511-B R10</td>
<td>Updated to reflect most current revision date (07/15/2014).</td>
</tr>
<tr>
<td>EO-16585-A</td>
<td>Updated to correct most current revision date (07/19/2011).</td>
</tr>
<tr>
<td>361100 R3</td>
<td>Updated to reflect most current revision date (07/15/2014).</td>
</tr>
<tr>
<td>G-8094-9</td>
<td>Updated to reflect most current revision date (04/28/2014).</td>
</tr>
<tr>
<td>G-2041 / 359677</td>
<td>Updated to correct most current revision date (03/26/2012).</td>
</tr>
<tr>
<td>G-703</td>
<td>Updated to reflect most current revision date (04/09/2014).</td>
</tr>
<tr>
<td>G-11836-13-IGa</td>
<td>Interim revision reflects recent approval and use of a new higher volume excess flow valve.</td>
</tr>
<tr>
<td>G-11837</td>
<td>Updated to reflect most current revision date (01/24/2014).</td>
</tr>
<tr>
<td>G-414 aka EO-14166</td>
<td>Added specification after being overlooked in initial publication. Titled: &quot;Installation of Twin Gas Regulators Indoors (1” – 2”).&quot;</td>
</tr>
</tbody>
</table>
| 502163 R0 | Added New Gas Metering Specification titled: “Bumper Installation”.
| 502164 R0 | Added New Gas Metering Specification Drawing titled: "Outdoor Installation of B-838 Gas Regulators – 2”x4” Flanged for Class 1000TC – 38000TC Rotary Meters." |
| G-704 | Added New Gas Metering Specification titled: “Gas Meter and Regulator Installation Requirements”.
| EO-16726-A | Added specification after being overlooked in initial publication. Titled: Installation of 2 to 6 Unit Prefabricated Meter Sets for Outdoor Class 250TC Meters. |

## Approved Gas Service Equipment Tables

<table>
<thead>
<tr>
<th>Revision</th>
<th>Description</th>
</tr>
</thead>
</table>
| Table 1-A | Added Dresser valves to table. 
Added 1 1/4” valve to table. 
Added Walworth valve 1797 F to table. 
Table 1-A and Table 3 
Highlighted (in yellow) those valves designed and approved for use on operating pressures greater than 1 PSIG.
| Table 5 | Added A.Y. McDonald “By-Pass” Meter Bar - Catalog No. 6410. |

## Reference Material

<table>
<thead>
<tr>
<th>Revision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>74</td>
<td>Added “New York City Gas Meter Piping Pressure Test Verification” form as Exhibit-B. Added “Note: Form is to be used for company documentation by the performing plumber of record for all oil-to-gas conversion, natural gas generators, upgrades and or swing over work, certification.”</td>
</tr>
<tr>
<td>75</td>
<td>Changed to Exhibit-C.</td>
</tr>
<tr>
<td>76</td>
<td>Added “Westchester County Gas Meter Piping Pressure Test Verification” form as Exhibit-D.</td>
</tr>
<tr>
<td>77</td>
<td>Changed to Exhibit-E.</td>
</tr>
<tr>
<td>78</td>
<td>Changed to Exhibit-F.</td>
</tr>
<tr>
<td>79</td>
<td>Changed to Exhibit-G.</td>
</tr>
</tbody>
</table>

## Reference Material

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>80</td>
<td>Changed to Exhibit-H and replaced Interim and Final Gas Checklist with most current revision available date April, 2014.</td>
</tr>
</tbody>
</table>

## Revisions

<table>
<thead>
<tr>
<th>Revision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>84</td>
<td>Added Revisions Section to track “Updates, Additions and Omissions to the gas “Yellow Book” document.”</td>
</tr>
</tbody>
</table>
If you damage or pull a gas facility or SMELL GAS
Call us immediately 1-800-75CONED or dial 911 once safely away from the gas leak.

And then:
- Keep all persons away from the area
- Follow directions from Emergency Responders who arrive on-site.

Do not:
- Do anything to create a spark that could cause an explosion, such as:
  - Light a match
  - Turn appliance or lights on or off (including flashlights)
  - Use a telephone or cell phone
  - Ring a doorbell
  - Start a car