



THE COMMONWEALTH OF MASSACHUSETTS
DEPARTMENT OF PUBLIC UTILITIES

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December 19, 2018

Via Email

Marcy Reed
Boston Gas Company & Colonial Gas Company,
each d/b/a National Grid
40 Sylvan Road
Waltham, MA 02451

RE: Modification to Protocol Regarding Gas Pipeline Work

Dear President Reed,

This letter supersedes the protocol and directives stated in my letter of October 8, 2018.

On October 8, 2018, the Department of Public Utilities set a new protocol for National Grid's gas pipeline work. Since that time, the Department's Pipeline Safety Division has continued its numerous investigations and opened new investigations into National Grid's safety practices. The Department stated in its October 8 letter that the limitations on the scope of work permitted therein would remain in effect until the Department had reviewed the information provided by National Grid in response to information requests.

Since issuing its October 8 letter, the Department has reviewed voluminous responses from National Grid, detailing its safety practices, staffing and other project specific protocols and background. In addition, the National Transportation Safety Board (NTSB) issued a preliminary report on November 14, 2018, recommending that the Commonwealth amend its

laws to require the stamp of a certified professional engineer (PE) on all gas utility work. On November 20, 2018, the Governor filed legislation (H. 4979), which is currently pending before the state legislature, to implement the NTSB's recommendations as related to gas work that could pose a material risk to public safety. On November 21, 2018, all natural gas distribution companies, including National Grid, announced their commitment to adopting industry best practices for safety—the Pipeline Safety Management System: American Petroleum Institute's (API) Recommended Practice 1173.

After considering the information above, the Department deems it appropriate to modify the protocol set forth in the October 8 letter, provided that National Grid adhere to strengthened safety standards as set forth below. The standards below will: (i) require task specific operating protocols for gas work; (ii) impose new engineering protocols, including stamps of certified PE's in accordance with NTSB recommendations; and (iii) require higher credentials for those engaged in each category of work, based on the sensitivity of such work. These standards apply to all categories of work listed below, even where the work may not pose a material risk to public safety, and reflect the highest level of safety deemed appropriate for the specified tasks.

Effective immediately, the Department now requires National Grid to adhere to the following protocol for its gas pipeline work, which shall supersede the October 8 protocol:

- A. In addition to its current practice of providing the location and scope of its gas pipeline work, National Grid shall continue to have inspectors on site for any project having the potential to lead to an abnormal operating condition of the gas distribution system, such as work on district regulators or completing tie overs. For any such project, the company must also evaluate the work performed by providing a full explanation of the safety protocols taken and providing a rationale for the number of inspectors allocated to the site(s).
- B. National Grid shall report daily to the Department on the number of inspectors present at every other location where it conducted gas pipeline work.
- C. National Grid may perform the following work on the gas distribution system: emergency work, required compliance work, and the additional work listed below. All non-emergency work permitted under this protocol must be performed to the standards described below.

ADDITIONAL WORK

1. Direct Tap Service Lines

- A. Low Pressure Service Lines (between or equal to 7 inches water column (“iwc”) and 28 iwc)
 - Low pressure service lines must be installed using a Task Specific Operating Procedure (“TSOP”) and a generic service line plan. A Professional Engineer (“PE”) must review, approve, and certify both the TSOP and the generic service line plan.
 - A standard TSOP that a PE has reviewed, approved, and certified may be used for the installation of low pressure service lines that are $\frac{1}{2}$ ” through 2”.
 - For each low pressure service line above 2”, a PE must review, approve, and certify a TSOP for that service line location.
 - A low pressure service line must be installed by an individual that has a minimum of five years’ experience with low pressure service line installation or under the direct, on-site observation and direction of an individual that has a minimum of five years’ experience with low pressure service line installation.
 - All individuals that install low pressure service lines must have full qualifications for each task performed during the installation.

B. Intermediate Pressure Service Lines (equal to or greater than 1 pound per square inch gauge (psig) and less than 100 psig)

- Intermediate pressure service lines must be installed using a TSOP and a generic service line plan. A PE must review, approve, and certify both the TSOP and the generic service line plan.
- A standard TSOP that a PE has reviewed, approved, and certified may be used for the installation of intermediate pressure service lines that are $\frac{1}{2}$ " through 2".
- For each intermediate pressure service line above 2", a PE must review, approve, and certify a TSOP for that service line location.
- An intermediate pressure service line must be installed by an individual that has a minimum of ten years' experience with intermediate pressure service line installation or under the direct, on-site observation and direction of an individual that has a minimum of ten years' experience with intermediate pressure service line installation.
- All individuals that install intermediate pressure service lines must have full qualifications for each task performed during the installation.

C. High Pressure Service Lines (equal to or greater than 100 psig and less than 200 psig)

- High pressure service lines must be installed using a TSOP and a service line plan. A PE must review, approve, and certify both the TSOP and the service line plan for each location.
- To determine the effects that a high pressure service line may have on the overall function of distribution system, a PE must review, approve, and certify a full and complete engineering analysis prior to the installation of a high pressure service line.
- A high pressure service line must be installed by an individual that has a minimum of 15 years' experience with high pressure service line installation or under the direct, on-site observation and direction of an individual that has a minimum of 15 years' experience with high pressure service line installation.
- A PE must review and verify that the all welders working on the installation of a high pressure service line have qualifications sufficient to complete the installations.

2. New Mains and Extensions

A. Plastic Mains

- The installation and extension of plastic mains must have a TSOP that a PE has reviewed, approved, and certified.
- The TSOP must include a set of engineering drawings that a PE has reviewed, approved, and certified.
- All individuals that install or extend plastic mains must have full qualifications for each task performed during the installation or extension.
- Plastic main installation or extension must be performed by an individual that has a minimum of ten years' experience with plastic main installation or extension or under the direct, on-site observation and direction of an individual that has a minimum ten years' experience with plastic main installation or extension.
- During a plastic main installation or extension, a National Grid inspector with a minimum of ten years' experience with plastic main installation or extension must be on site.
- Plastic main installation and extension shall be limited to mains that have a diameter of 12" or less and are 100 psig or less.
- All plastic main to main tie-ins must be performed by an individual that has a minimum of ten years' experience with plastic main to main tie-ins.

B. Welded Steel Mains

- The installation and extension of welded steel mains must have a TSOP that a PE has reviewed, approved, and certified.
- The TSOP must include a set of engineering drawings that a PE has reviewed, approved, and certified.
- All individuals that install or extend welded steel mains must have full qualifications for each task performed during the installation or extension.
- The installation and extension of welded steel mains must be performed by an individual that has a minimum of fifteen years' experience with welded steel main installation or extension or under the direct, on-site observation and direction of an individual that has a minimum of fifteen years' experience with welded steel main installation or extension.
- All melded steel main to main tie-ins must be performed by an individual that has a minimum of 15 years' experience with welded steel main to main tie-ins.
- Welded steel main installation or extension must have a DPU inspector on site during the installation or extension process.
- The installation and extension of welded steel mains must be completed in coordination with the Department's Pipeline Safety Division, which must receive at least a 30-day notice of the proposed installation or extension.

National Grid shall incorporate the additional standards listed above into its operations, maintenance, and construction standards. If National Grid fails to follow these standards as thus incorporated, it will face fines of up to \$200,000 per violation and \$2,000,000 for each continuing violation.

The Department will continue to investigate National Grid's safety practices and will issue additional orders as deemed appropriate through the Pipeline Safety Division. Based on National Grid's past practices and current workforce, these restrictions are needed to ensure the integrity of the gas pipeline system and oversight of National Grid's work.

Sincerely,

/s/ Angela M. O'Connor

Angela M. O'Connor
Chairman