

THE STATE OF NEW HAMPSHIRE



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September 28, 2018

Ms. Sue Fleck
NH President
Liberty Utilities
15 Buttrick Road
Londonderry, NH 03053

Mr. Tom Meissner
President and CEO
Unitil Corporation
6 Liberty Lane West
Hampton, NH 03842-1720

RE: Safety Directives to Avoid Potential Gas Line Over-Pressurizations

Dear Ms. Fleck and Mr. Meissner:

This letter contains a directive from the Commission to take certain actions described below. Over-pressurization of gas infrastructure presents serious safety risks to end-use customers, utility operating personnel, first responders, and non-gas customers in the vicinity of an incident. This fact is underscored by recent regional and national over-pressurization incidents within the natural gas industry. Safe construction and operation of gas infrastructure is the primary responsibility of gas utility companies under RSA 374:1. The Commission, however, is charged with the general supervision of gas utilities, to ensure that utility service and facilities are safe, pursuant to RSA 374:3 and 374:4. To that end, in light of recent events, the Commission is directing a rigorous review of gas utility documentation and safety procedures. The Commission appreciates the safety record of New Hampshire's gas utilities as well as your willingness and efforts to review and improve records and the safety of your gas systems.

It is imperative that each company put as many safeguards in place as possible to avoid an over-pressurization incident from developing. Safeguards include: careful equipment design, selection, and installation; precise and unambiguous written procedures that all utility personnel and contractors can easily understand; robust training; task oversight; implementation of assurance quality processes; and other measures.

Three incidents involving over-pressurization are listed below. These three incidents share common threads, and all highlight the consequences associated with over-pressurization and provide lessons to be learned. You are directed to carefully review and consider the factors contributing to each incident, and to identify improvements that you could implement to prevent such incidents from occurring on your systems.

- 1) November 9, 2005, incident involving a gas system operated by KeySpan Energy (now National Grid USA), which affected approximately 1,700 customers in Lexington, Massachusetts, and caused over \$1,000,000 in property damage.
- 2) January 24, 2011, incident involving a gas system operated by Dominion East Ohio Gas Company (now Dominion Energy), which affected approximately 150 homes in Fairport Harbor, Ohio, and caused over \$1,000,000 in property damage, including numerous fires.
- 3) September 13, 2018, incident involving a gas system operated by Columbia Gas, which affected approximately 8,700 customers in Lawrence, Andover, and North Andover, Massachusetts, and an additional 4,750 customers mistakenly shut-off and requiring relighting in the vicinity of the affected zone. Facts regarding fatalities, bodily injuries, fires, and emergencies called to 911 are emerging. Information on contributing factors is being released through National Transportation Safety Board statements.

The Commission encourages your company to research other incidents from which valuable information might also be extracted to prevent future occurrences.

Pursuant to its statutory authority, and at the request of its Safety Division Director, the Commission directs your company to take the following actions under the supervision of the Safety Division:

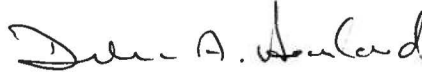
- 1) Review existing procedures regarding the connection of gas mains during replacement/abandonment projects for possible improvements to procedures that can add clarity and appropriate detail, and minimize potential confusion or errors in sequencing, documenting, and the ability to achieve successful outcomes. Submission to the Safety Division of each procedure involved in these types of projects must be submitted with markups and annotations of any improvements implemented. All language regarding safeguards should be identified and highlighted. These should include, but not be limited to, operation and engineering signoffs, documenting pre-planning events, installing tertiary over-pressure protection devices, such as partial reliefs, full reliefs or slam-shut devices, and pressure monitoring. Specific contingency emergency plans should be developed for all replacement/abandonment projects that clearly outline the emergency actions that will be required in the event of an accidental over-pressurization.

- 2) Identify all areas within your service territory that have multiple pipelines that operate at different pressures within the same municipal block or cross street segmentation. For each area, all pipeline system records must identify distinctly and clearly each of the pipelines in the area by pressure and include installation date, nominal pipe diameter, pipe material, and any fitting used. Location information must be provided that will allow field personnel to know exact location(s) of each pipeline including those abandoned in place. All services must be drawn to within a city block or nearest cross street to show the service/meter connection to appropriate main segment. Service insertions and main insertions must be denoted, along with any fittings used within the area. Any planned work involving an area in which multiple pressure pipelines exist must be reviewed and documented by appropriate construction and engineering personnel. All pipeline systems within which multiple pressure pipelines coexist on the same street block must be given precedence for final documentation record updates (i.e. mapping) once any construction, maintenance, or repair activity resulting in configuration changes is completed.
- 3) Any district regulating station must have details drawn of piping configurations, materials, and pipeline sizes within the station, as well as piping outside the station within a one block radius in all directions of the station. Venting details, sensing line termination points, sensing line connections, sensing line materials including carrier or casing material, if inserted, must be shown. Upstream and downstream valves must be indicated, including those within a station and in the surrounding area external to the station. All corrosion system details such as anode locations, connection points, cathodic protection measuring points, and rectifier system components must be included. All instrumentation devices that record information related to flow, pressure, and temperature sensing and instrumentation points must be shown. All high pressure, intermediate pressure, and low pressure mains must be clearly shown with typical flow directions. Every effort should be made to include other utilities' infrastructure, physical geographic information such as buildings, addresses, poles, fence lines, curb lines, drainage and sewer infrastructure, and similar features that may potentially aid an individual performing work on the gas system. Photo documentation of pipeline components should be included in documentation whenever possible. Detailed updates should be completed within 60 days of receipt of this letter.
- 4) The Company's procedures must explicitly incorporate requirements that qualified regulator station personnel familiar with instrumentation and regulation must be present whenever work is performed at or near regulator stations, including first, second, and third party excavations.

The Commission expects gas utilities to proactively prevent any over-pressurization under all circumstances and strictly enforces, and will continue to enforce, compliance with gas safety standards. Over-pressurization violations, no matter how small, will trigger enforcement action.

Accordingly, you are directed to provide the Commission's Safety Director with the information enumerated above by December 1, 2018. If you consider any of the information requested to be confidential, you should follow the rules for seeking confidential treatment of that information. Any necessary follow-up action is delegated to the Commission's Safety Division Director.

Sincerely,

A handwritten signature in black ink, appearing to read "Debra A. Howland". The signature is fluid and cursive, with the first name being the most prominent.

Debra A. Howland
Executive Director

cc: Gary Epler, Esq.
Michael Sheehan, Esq.
Randy Knepper