

# STATE OF NEW HAMPSHIRE

Inter-Department Communication

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AT (OFFICE): NHPUC

**FROM:** Randy Knepper  
Director of Safety & Security, Safety Division

**SUBJECT:** **DG 18-107 Petition for Temporary Waiver of Puc 506.01(n), Clearance Requirements for Gas Service Regulators**  
Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities  
**Staff Recommendation**

**TO:** Debra Howland, Executive Director  
Stephen Frink, Director, Gas-Water Division  
Lynn Fabrizio, Hearings Examiner, Legal Division  
Al-Azad Iqbal, Utility Analyst, Gas-Water Division

Staff has completed its review of the Liberty Utilities (EnergyNorth Natural Gas) Corp. d/b/a Liberty Utilities (Liberty or the Company) petition for waiver of Puc 506.01(n), related to clearance requirements of gas service regulators, as filed on July 25, 2018.

Staff performed a preliminary analysis and researched the technical literature related to this request. The Company hosted an *in situ* demonstration of the service regulator at its facilities at Broken Bridge Road, Concord, on June 9, 2018 to provide Staff a visual simulation of the service regulator in action and to provide some additional Company's responses to Staff questions. It was at this demonstration that Staff suggested to Liberty that a waiver request was necessary.

Staff recommends approval of the motion for waiver of Puc 506.01 (n), with conditions, based on the following facts:

1. The Company has elected to use the FE Model Regulator manufactured by Pietro Fiorentini in limited applications.
2. The FE is a double stage residential regulator.
3. The FE Model Regulator has a dual diaphragm design, which, in case of breakage of the working diaphragm, ensures gas dispersion in an atmosphere of less than (1.35 SCFH natural gas) through the vent of the regulator cover. The over pressure shut off (OPSO) design of the FE model regulators provides sufficient protection against downstream equipment in case of regulator failure, which causes an over pressurization of downstream piping.
4. The amount of natural gas vented in such a scenario is near zero and considered negligible.
5. A federal waiver of 49 CFR Part 192 is not required. Puc 506.01 (n) is more stringent than the minimal federal requirements and there is no such safety requirement imposed by the federal pipeline safety regulations.
6. The purpose of the service regulator is to provide zero clearance and to allow the Company to provide an option to those customers who desire a more aesthetically pleasing installation without long vent lines.
7. A standard regulator costs approximately \$17.51 per unit while the FE Model Regulator costs \$106.80 per unit.

Staff recommends the Commission impose five conditions if it grants the waiver, as follows:

First, affirm that the waiver applies only to the Pietro Fiorentini FE Model Regulator and not to other manufacturers whose product literature was not reviewed by Staff.

Second, the Company should be required to keep an accounting of each location where these regulators are installed; accounting should be maintained in an electronic database that is easily retrievable. The Company shall make available to the Staff upon request the location of each such installation in future field inspections. The Company should be able to easily identify the total number of regulators installed by town, as well as the exact location, the unique service identifier, and the date of installation for each regulator.

Third, the Company should target the number of installations to no more than 5% of the total number of traditional regulators installed by the Company in a given year. For those unusual instances where the target is exceeded, the Company should be limited to installing within the current year a quantity that is no greater than 10% of the total number of services (both high pressure and low pressure) installed in the previous year as reported on the form referenced in Puc 508.05(a)(2)(b). This condition is intended to limit the cost burden to rate payers since it is more than 6 times the expense of the standard model used.

Fourth, the use of the FE Model Regulator should be limited to above-ground installations and outside meter sets only.

Fifth, Liberty should amend its construction, operations, and maintenance manual(s), as applicable, and ensure that all FE model installation instructions are followed to meet the manufacturer's regulator specifications.

The Staff also recommends the Commission reserve the right to revoke the waiver if in subsequent years the Staff finds the conditions are not adhered to.