GUIDELINES FOR USE OF PROFESSIONAL ENGINEERS FOR GAS UTILITY WORK

D.P.U. 21-04-A, Appendix D (September 21, 2021)

I. GENERAL

A. Purpose and Scope

The purpose of these Guidelines is to ensure that every gas company, as defined in 220 CMR 105.00, requires the stamp of an appropriate Professional Engineer on any engineering plans or specifications for engineering work or services that could pose a material risk to public safety, pursuant to G.L. c. 164, § 148 and 220 CMR 105.00. More specifically, these Guidelines delineate the types of engineering work or services that could pose a material risk to public safety and, thus, require a Professional Engineer stamp. In the event of a conflict between these Guidelines and any Orders or regulations of the Department of Public Utilities ("Department"), said Orders and regulations shall govern.

These Guidelines apply to every gas company as defined in M.G.L. c. 164, § 1: a corporation organized for the purpose of making and selling or distributing and selling, gas within the commonwealth, even though subsequently authorized to make or sell electricity; provided, however, that gas company shall not mean an alternative energy producer.

B. Definitions

In addition to the definitions set forth in 220 CMR 105.00, the following definitions apply to these Guidelines:

"Abandonment." The process of disconnecting a pipeline from all sources and supplies of gas, purging the pipeline of gas except when the volume of gas is so small that there is no potential hazard, and sealing the ends.

"Bypass." An auxiliary piping arrangement, generally used to carry gas around specific equipment or an integral section of a piping system.

"Complex Project." Any engineering work or services that could pose a material risk to public safety and requires a job-specific design plan, including but not limited to the following:

1. Installation that creates or reconfigures district pressure regulator stations or gate/take stations.

2. System analysis and subsequent adjustment of system operating pressures at district regulator stations or gate/take stations when the adjustment increases or decreases the MAOP or MOP of the system.

3. Installation of new, intrastate compressor stations.

4. Installation, uprating, or abandonment of intrastate transmission lines.

5. Installation, replacement, or abandonment of distribution mains or services that:

    a. Involves a single tie-in that is 12″ or greater;

    b. Involves two or more tie-ins of any size;

    c. Requires more than one bypass;

    d. Involves distribution pipelines operating at a pressure greater than 200 psig;

    e. Involves connecting to a high-pressure distribution main with an MAOP of 200 psig or greater, including Farm Taps;

    f. Crosses any bridge, railway, or waterway; or

    g. Uses trenchless technology for pipe greater than 4″.

6. Uprating of distribution mains and services.

7. Installation or abandonment of service lines that require an interruption of flow in the distribution main.

8. Installation or reconfiguration of liquefied natural gas (“LNG”) peak shaving facilities or portable LNG facilities connected to a distribution system, intrastate transmission line, or Large-volume User.

9. Installation of Large-volume User meter sets if the inlet line to the meter is greater than 4″ in nominal dimeter, with consideration given to site-specific complexity.

10. Annual review and analysis of relief valve capacity calculations per 49 CFR § 192.739 that lead to the installation or reconfiguration of relief valves at district regulator or gate/take stations.

11. System design and procedures for installation of cathodic protection.

12. Construction design plans to supply a Large-volume User.

13. Installation or reconfiguration of liquefied propane gas/air facilities connected to a distribution system.

14. Installation or reconfiguration of compressed natural gas ("CNG") facilities or portable CNG facilities connected to a gas distribution system, intrastate transmission line, or Large-volume User.

"Farm Tap." A regulated service line directly connected to a production, gathering, or transmission pipeline that is not operated as part of a distribution system.

"Installation." The design or construction of new facilities or changes to existing facilities.

"Large-volume User." A user defined by a Gas Company as a Large-volume User, including but not limited to a co-generation facility, factory, power plant, or institutional facility.

"MAOP." Maximum allowable operating pressure as defined in 49 CFR § 192.3.

"MOP." Maximum actual operating pressure as defined in 49 CFR § 192.3.

"Peak-shaving Facilities." An LNG facility used for storing surplus natural gas for use during peak demand periods such as winter and summer.

"Reconfigure." Rebuild or relocate components, including the replacement of any individual component that would alter the MAOP or volumetric capacity, but excluding individual component replacement that has no effect on operation or function (e.g., orifices, springs, filters/strainers, valves).

"Tie-in." The connection of a new pipeline or branch to an existing pipeline.

"Trenchless Technology." A method used to minimize excavation activity, such as horizontal directional drilling, tunneling, and auger boring, but excluding short installations with pneumatic tools such as moling.

"Uprating." Increasing the MAOP of a pipeline in accordance with 49 CFR Part 192, Subpart K.

II. USE OF PROFESSIONAL ENGINEERS

A. Any gas pipeline engineering Instruments of Service for Complex Projects must be produced by or under the direct charge and supervision of a Professional Engineer with Sufficient Knowledge, as defined in 220 CMR 105.00. The Professional Engineer must ensure, in coordination with Gas Company personnel, that the Instruments of Service conform to all applicable pipeline safety laws, regulations, and standards and procedures of the Gas Company.

B. Prior to commencing work on a Complex Project, the Gas Company must ensure that all Instruments of Service bear the Professional Engineer's stamp and are accurate, complete, and accord with all applicable standards and procedures.

C. The Professional Engineer must ensure, in coordination with Gas Company personnel, that the project-specific procedures present an adequate sequence of all construction steps to be performed.

D. A Professional Engineer's stamp may not be used on standardized or generic Instruments of Service unless they meet the definition of Complex Project. All Instruments of Service with a Professional Engineer's stamp must be part of a site-specific project package and applicable to the specific project requirements.

E. A Professional Engineer's stamp is not required during an Emergency, as defined in 220 CMR 105.00, but is required after the Emergency has been brought to conclusion and gas service restored to the customer if there is further work or services constituting a Complex Project.