



Designation: F2350 – 04

Standard Practice for Selection of Natural Gas Pipelines Suitable for Installation of Optical Fiber Systems¹

This standard is issued under the fixed designation F2350; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This practice specifically addresses the criteria for determining the suitability of natural gas pipelines for use as conduits for optical fiber cable systems, as opposed to standards for the operation and maintenance of such a system.

1.2 The values stated in inch-pound units are to be regarded as the standard. The values provided in parentheses are for information purposes only.

1.3 This practice does not apply to natural gas transmission lines.

1.4 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 *ASTM Standards:*²

D1600 Terminology for Abbreviated Terms Relating to Plastics

F412 Terminology Relating to Plastic Piping Systems

2.2 *Other References:*³

Code of Federal Regulations (CFR) 49, Part 192 Transportation of Natural or other Gas by Pipeline, Minimum Federal Safety Standards

3. Terminology

3.1 Definitions are in accordance with Terminology **F412** and abbreviations are in accordance with Terminology **D1600**, unless otherwise specified.

¹ This practice is under the jurisdiction of ASTM Committee **F36** on Technology and Underground Utilities and is the direct responsibility of Subcommittee **F36.10** on Optical Fiber Systems within Existing Infrastructure.

Current edition approved July 1, 2004. Published July 2004. DOI: 10.1520/F2350-04.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from U.S. Government Printing Office Superintendent of Documents, 732 N. Capitol St., NW, Mail Stop: SDE, Washington, DC 20401.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *distribution line*—a pipeline other than a gathering or transmission line.

3.2.2 *gas*—natural gas.

3.2.3 *high-pressure distribution system*—a distribution system in which the gas pressure in the main is higher than the pressure normally provided to the customer (that is, higher than utilization pressure).

3.2.4 *installer*—the person(s) or body installing the optical fiber system within the natural gas pipeline.

3.2.5 *local distribution company (LDC)*—the owner/operator of the natural gas piping system within a specific geographic area.

3.2.6 *low-pressure distribution system*—a distribution system in which the gas pressure in the main is substantially the same as the pressure provided to the customer.

3.2.7 *main*—a distribution line that serves as a common source of supply for more than one service line.

3.2.8 *maximum actual operating pressure*—the maximum pressure that occurs during normal operations over a period of one year.

3.2.9 *maximum allowable operating pressure (MAOP)*—the maximum pressure at which a pipeline or segment of a pipeline may be operated under CFR 49, part 192.

3.2.10 *optical fiber cable*—a cable formed of one or more strands of optical fiber for transmission of data, video, audio, voice, and other information.

3.2.11 *optical fiber system*—a group of components that comprises the elements necessary to enable Optical Fiber Cable to be installed, maintained, and operated inside a gas pipeline.

3.2.12 *operator*—a person who engages in the transportation of gas.

3.2.13 *pipe (piping)*—any pipe or tubing used in the transportation of gas.

3.2.14 *pipeline*—all parts of those physical facilities through which gas moves in transportation, including pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies.