

INTRODUCTION

The Natural Gas Pipeline Safety Act of 1968 required the Department of Transportation (DOT) to develop and enforce minimum safety regulations for the transportation of gases by pipeline. These regulations became effective in 1970 and the Materials Transportation Bureau of DOT is charged with their enforcement. They are published in Title 49, Code of Federal Regulations, Parts 190, 191, and 192.

This pipeline safety code applies to:

- gas utilities (private, public, and municipal),
- operators of housing developments and mobile home parks served by natural gas master meters,
- liquefied petroleum gas (LP-Gas) systems that supply **ten or more** customers from a single source, and
- any portion of a LP-Gas system located in a public place.

This pipeline safety code says that operators of all gas systems must:

- deliver gas safely and reliably to customers,
- provide training and written instruction for employees,
- establish written procedures to minimize the hazards resulting from gas pipeline emergencies, and
- keep records of inspection and testing.

It is very important that you meet your responsibilities under the code because operators who do not comply may be subject to civil penalties, compliance orders, or both. If the hazards warrant it, a "Hazardous Facility Order" may be issued that could shut down your system.

In some cases state agencies have assumed the responsibility for enforcing pipeline safety standards for operators within their state. The state agency is allowed to adopt additional or more stringent safety standards for intrastate pipeline transportation as long as such standards are compatible with the federal minimum standards. If a state agency has not taken safety jurisdiction over an intrastate operator, the federal government retains jurisdiction.

To understand this manual, you will need to know the meaning of some commonly used terms in the natural gas and LP-Gas industry. Look over this list and read carefully any definition of a word when you may not be sure of its meaning.

GAS OPERATOR is a person who engages in the transportation of gas. A gas operator may be a gas utility company, a municipality, or an individual operating a housing project, apartment complex, condominium, or a mobile home park served by a master meter.

NATURAL GAS is a non-toxic, colorless fuel, about one third lighter than air, Gas burns only when mixed with air in the right proportion and ignited by a spark or flame. Gas, in its natural state, may not have an odor.

LIQUEFIED PETROLEUM GAS (LP-GAS or LPG) is gas in a liquid state in the supply tank, but it is vaporized at the tank's outlet then distributed in a gaseous state. There are two properties of LP-Gas that you should know: it expands when the temperature rises, and it is heavier than air.

SERVICE LINE is a gas distribution line that transports gas from a common source of supply to a customer's meter, or to the connection to a customer's piping if the piping is farther downstream, or if there is no meter.

MAIN is a distribution line that serves as a common source of supply for more than one service line.

PIPELINE means all parts of those physical facilities through which gas moves in transportation. This includes pipe, valves, and other items attached to pipe, meter station, regulator stations, delivery stations, holders, or fabricated assemblies.

CUSTOMER METER is a device that measures the volume of gas transferred from an operator to the consumer.

SERVICE REGULATOR is a device designed to reduce and limit the gas pressure to the consumer.

SERVICE RISER is the section of a service line which extends out of the ground and is often near the wall of a building. This usually includes a shut-off valve and a regulator.

SHUT-OFF VALVE is a valve installed to shut off the gas supply to a building. The valve may be located ahead of the service regulator or below ground at the property line or where the service line connects to the main.

OVERPRESSURE PROTECTION equipment is installed to prevent pressure in a system from exceeding the maximum allowed limit for operating the system safely.

PRESSURE REGULATING/RELIEF STATION automatically reduces and controls the gas pressure downstream from a high pressure source of gas in to a system operating at a lower pressure. In it includes any enclosures, relief devices, and ventilating equipment, and any piping and auxiliary equipment (such as valves, regulators, control instruments, or control lines.)

PSIG is an abbreviation for pounds per square inch gage pressure.

MAOP is an abbreviation for maximum allowable operating pressure. This is established by design, past operating history, pressure testing, and pressure ratings.

CORROSION is the rusting of a metal pipe. This is caused by a electro-chemical reaction that takes place between metallic pipe and its surroundings. As a result, the pipe deteriorates and will eventually leak. This underground corrosion can be retarded with cathodic protection.

CATHODIC PROTECTION is a procedure by which underground metallic pipe is protected against corrosion. It is a method for controlling the corrosion or deterioration of steel pipe and connected metallic equipment through the use of electrolysis.

OPERATING AND MAINTENANCE PLAN (O & M PLAN) - is a plan that the federal government requires you the operator to write outlining the procedures you follow to operate and maintain a safe system.

49 CFR refers to the Code of Federal Regulations, Title 49, the document that contains the actual regulations you must follow. The title number refers to a particular volume. Part 191 or Part 192 refers to particular parts in the volume.