**§ 192.163 Compressor stations: Design and construction.**

**(a)*Location of compressor building.*** Except for a compressor building on a platform located [offshore](https://www.law.cornell.edu/cfr/text/49/192.163) or in inland navigable waters, each [main](https://www.law.cornell.edu/cfr/text/49/192.163) compressor building of a compressor station must be located on property under the control of the [operator](https://www.law.cornell.edu/cfr/text/49/192.163). It must be far enough away from adjacent property, not under control of the [operator](https://www.law.cornell.edu/cfr/text/49/192.163), to minimize the possibility of fire being communicated to the compressor building from structures on adjacent property. There must be enough open space around the [main](https://www.law.cornell.edu/cfr/text/49/192.163) compressor building to allow the free movement of fire-fighting equipment.

**(b)*Building construction.*** Each building on a compressor station site must be made of noncombustible materials if it contains either -

**(1)**[Pipe](https://www.law.cornell.edu/cfr/text/49/192.163) more than 2 inches (51 millimeters) in diameter that is carrying [gas](https://www.law.cornell.edu/cfr/text/49/192.163) under pressure; or

**(2)**[Gas](https://www.law.cornell.edu/cfr/text/49/192.163) handling equipment other than [gas](https://www.law.cornell.edu/cfr/text/49/192.163) utilization equipment used for domestic purposes.

**(c)*Exits.*** Each operating floor of a [main](https://www.law.cornell.edu/cfr/text/49/192.163) compressor building must have at least two separated and unobstructed exits located so as to provide a convenient possibility of escape and an unobstructed passage to a place of safety. Each door latch on an exit must be of a type which can be readily opened from the inside without a key. Each swinging door located in an exterior wall must be mounted to swing outward.

**(d)*Fenced areas.*** Each fence around a compressor station must have at least two gates located so as to provide a convenient opportunity for escape to a place of safety, or have other facilities affording a similarly convenient exit from the area. Each gate located within 200 feet (61 meters) of any compressor plant building must open outward and, when occupied, must be openable from the inside without a key.

**(e)*Electrical facilities.*** Electrical equipment and wiring installed in compressor stations must conform to the NFPA-70, so far as that code is applicable.

**§ 192.165 Compressor stations: Liquid removal.**

**(a)** Where entrained vapors in [gas](https://www.law.cornell.edu/cfr/text/49/192.165) [may](https://www.law.cornell.edu/cfr/text/49/192.165) liquefy under the anticipated pressure and temperature conditions, the compressor must be protected against the introduction of those liquids in quantities that could cause damage.

**(b)** Each liquid separator used to remove entrained liquids at a compressor station must:

**(1)** Have a manually operable means of removing these liquids.

**(2)** Where slugs of liquid could be carried into the compressors, have either automatic liquid removal facilities, an automatic compressor shutdown device, or a high liquid level [alarm](https://www.law.cornell.edu/cfr/text/49/192.165); and

**(3)** Be manufactured in accordance with section VIII ASME Boiler and Pressure Vessel Code (BPVC) (incorporated by reference, ***see***[§ 192.7](https://www.law.cornell.edu/cfr/text/49/192.7)) and the additional requirements of [§ 192.153(e)](https://www.law.cornell.edu/cfr/text/49/192.153#e) except that liquid separators constructed of[pipe](https://www.law.cornell.edu/cfr/text/49/192.165) and fittings without internal welding must be fabricated with a design factor of 0.4, or less.

**§ 192.167 Compressor stations: Emergency shutdown.**

**(a)** Except for unattended field compressor stations of 1,000 horsepower (746 kilowatts) or less, each compressor station must have an emergency shutdown system that meets the following:

**(1)** It must be able to block [gas](https://www.law.cornell.edu/cfr/text/49/192.167) out of the station and blow down the station piping.

**(2)** It must discharge [gas](https://www.law.cornell.edu/cfr/text/49/192.167) from the blowdown piping at a location where the [gas](https://www.law.cornell.edu/cfr/text/49/192.167) will not create a hazard.

**(3)** It must provide means for the shutdown of [gas](https://www.law.cornell.edu/cfr/text/49/192.167) compressing equipment, [gas](https://www.law.cornell.edu/cfr/text/49/192.167) fires, and electrical facilities in the vicinity of [gas](https://www.law.cornell.edu/cfr/text/49/192.167) headers and in the compressor building, except that:

**(i)** Electrical circuits that supply emergency lighting required to assist station personnel in evacuating the compressor building and the area in the vicinity of the [gas](https://www.law.cornell.edu/cfr/text/49/192.167) headers must remain energized; and

**(ii)** Electrical circuits needed to protect equipment from damage [may](https://www.law.cornell.edu/cfr/text/49/192.167) remain energized.

**(4)** It must be operable from at least two locations, each of which is:

**(i)** Outside the [gas](https://www.law.cornell.edu/cfr/text/49/192.167) area of the station;

**(ii)** Near the exit gates, if the station is fenced, or near emergency exits, if not fenced; and

**(iii)** Not more than 500 feet (153 meters) from the limits of the station.

**(b)** If a compressor station supplies [gas](https://www.law.cornell.edu/cfr/text/49/192.167) directly to a distribution system with no other adequate source of [gas](https://www.law.cornell.edu/cfr/text/49/192.167)available, the emergency shutdown system must be designed so that it will not function at the wrong time and cause an unintended outage on the distribution system.

**(c)** On a platform located [offshore](https://www.law.cornell.edu/cfr/text/49/192.167) or in inland navigable waters, the emergency shutdown system must be designed and installed to actuate automatically by each of the following events:

**(1)** In the case of an unattended compressor station:

**(i)** When the [gas](https://www.law.cornell.edu/cfr/text/49/192.167) pressure equals the [maximum allowable operating pressure](https://www.law.cornell.edu/cfr/text/49/192.167) plus 15 percent; or

**(ii)** When an uncontrolled fire occurs on the platform; and

**(2)** In the case of a compressor station in a building:

**(i)** When an uncontrolled fire occurs in the building; or

**(ii)** When the concentration of [gas](https://www.law.cornell.edu/cfr/text/49/192.167) in air reaches 50 percent or more of the lower explosive limit in a building which has a source of ignition.

**§ 192.169 Compressor stations: Pressure limiting devices.**

**(a)** Each compressor station must have pressure relief or other suitable protective devices of sufficient capacity and sensitivity to ensure that the [maximum allowable operating pressure](https://www.law.cornell.edu/cfr/text/49/192.169) of the station piping and equipment is not exceeded by more than 10 percent.

**(b)** Each vent line that exhausts [gas](https://www.law.cornell.edu/cfr/text/49/192.169) from the pressure relief valves of a compressor station must extend to a location where the [gas](https://www.law.cornell.edu/cfr/text/49/192.169) [may](https://www.law.cornell.edu/cfr/text/49/192.169) be discharged without hazard.

**§ 192.171 Compressor stations: Additional safety equipment.**

**(a)** Each compressor station must have adequate fire protection facilities. If fire pumps are a part of these facilities, their operation [may not](https://www.law.cornell.edu/cfr/text/49/192.171) be affected by the emergency shutdown system.

**(b)** Each compressor station prime mover, other than an electrical induction or synchronous motor, must have an automatic device to shut down the unit before the speed of either the prime mover or the driven unit exceeds a maximum safe speed.

**(c)** Each compressor unit in a compressor station must have a shutdown or [alarm](https://www.law.cornell.edu/cfr/text/49/192.171) device that operates in the event of inadequate cooling or lubrication of the unit.

**(d)** Each compressor station [gas](https://www.law.cornell.edu/cfr/text/49/192.171) engine that operates with pressure [gas](https://www.law.cornell.edu/cfr/text/49/192.171) injection must be equipped so that stoppage of the engine automatically shuts off the fuel and vents the engine distribution manifold.

**(e)** Each muffler for a [gas](https://www.law.cornell.edu/cfr/text/49/192.171) engine in a compressor station must have vent slots or holes in the baffles of each compartment to prevent [gas](https://www.law.cornell.edu/cfr/text/49/192.171) from being trapped in the muffler.

**§ 192.173 Compressor stations: Ventilation.**

Each compressor station building must be ventilated to ensure that employees are not endangered by the accumulation of [gas](https://www.law.cornell.edu/cfr/text/49/192.173) in rooms, sumps, attics, pits, or other enclosed places.