



Compressor Station Emergency Shutdown Systems	SCG:	223.0240
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**PURPOSE** The purpose of this Gas Standard is to ensure compliance with the requirements of 49 CFR 192.167(a) *Compressor Stations: Emergency Shutdown*.

1. POLICY AND SCOPE

- 1.1. This Standard applies to compressor stations at Storage and Transmission facilities associated with the compression of pipeline natural gas for transportation, and covers the minimum functional requirements for emergency shutdown systems at these compressor stations.
- 1.2. Unattended field compressor stations of 1,000 hp or less are exempted from these requirements. Neither 49 CFR 192.167(b) nor 49 CFR 192.167(c) apply to SoCalGas compressor stations.
- 1.3. Refer to [Gas Standard 223.0255](#), *Testing and Maintaining Compressor Station Emergency Shutdown Systems*, for testing and maintenance of compressor station emergency shutdown systems.

2. RESPONSIBILITIES AND QUALIFICATIONS

N/A

3. DEFINITIONS

- 3.1. An **Emergency Shutdown System (ESD System)** is an engineered assembly of control devices which—when activated during an emergency—stops equipment that is part of a specific operating system, closes certain valves to isolate that system, and may open other valves to cause the system to depressurize to atmosphere, with the objective of getting the system to a safe condition.
- 3.2. The term “**ESD**” by itself refers to the switch, button or valve handle which is thrown, pressed or turned, respectively, to manually activate an ESD System at a compressor station. In case of accidental fire in a hazardous area of a compressor station, the ESD system is activated either automatically or manually via the ESD. (Refer to [Gas Standard 166.0015](#), *Fire Prevention and Protection - Transmission and Storage*, for guidelines for preventing accidental fires.)



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4. GUIDELINES

4.1. ESD Systems must meet the following requirements listed in **49 CFR 192.167(a)**:

4.1.1. ESD Systems must be able to block natural gas out of the compressor station and blow down the station piping.

4.1.2. ESD Systems must discharge natural gas from the blowdown piping at a location where the gas will not create a hazard.

4.1.3. ESD Systems must provide means for the shutdown of natural gas compressing equipment, gas fires, and electrical facilities in the vicinity of gas headers and in the compressor building, except that:

4.1.3.1. 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 headers must remain energized; and

4.1.3.2. Electrical circuits needed to protect equipment from damage may remain energized.

4.1.4. ESD Systems must be operable from at least two locations, each of which is:

4.1.4.1. Outside the gas area of the compressor station;

4.1.4.2. Near the exit gates if the compressor station is fenced or near emergency exits if not fenced; and

4.1.4.3. Not more than 500 feet (153 meters) from the limits of the compressor station.

4.2. ESD Systems must also meet the following Company requirements when activated:

4.2.1. Main unit fuel valves shut off.

4.2.2. Main gas line valves into and out of the compressor station shut off.

4.2.3. Compressor station gas piping is vented to the atmosphere. Fuel supply lines to fire-fighting and emergency lighting equipment are not vented.

4.2.4. All electrical circuits within hazardous areas of the station are deactivated, except those listed in §4.1.3.1 and 4.1.3.2.

4.2.5. Automatic fire-fighting equipment (where applicable) activates and remains so until either depleted or turned off manually.



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5. EXCEPTION PROCEDURE(See [Standard 182.0004](#), *Exception Procedure for Company Operations Standards*)
  - 5.1. An exception to this standard shall be considered only after all practicable solutions have been exhausted. All proposed exceptions to this standard must take safety issues into primary consideration and must comply with all relevant governing codes, before approval of any proposed exception may be granted.
  - 5.2. An exception to this standard shall be permitted only if [Standard 182.0004](#), *Exception Procedure for Company Operations Standards*, is followed, and approval is granted by those required by 182.0004.

6. OPERATOR QUALIFICATION COVERED TASKS  
N/A

7. RECORDS

- 7.1. A drawing or sketch showing the locations and types of all fire-fighting equipment in the compressor station must be readily available.

8. APPENDICES – N/A

9. PROTECTED SECTIONS AND WORDING

The following sections and wording in this document cannot be altered or deleted without prior approval from Pipeline Safety & Compliance and Legal:

Section	Protected Wording (Underlined ONLY)	Justification	Date Wording Added
N/A			



**SoCalGas Gas Standard Measurement, Regulation & Control**

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