# CAPACITY REVIEW OF RELIEF DEVICES AT COMPRESSOR STATIONS

AS REQUIRED BY PARAGRAPH 192.731 OF 49 CFR 192 (REFER TO NUMBERED DOCUMENT H-70)

| Station Name | Area | District |
|---|---|---|
| Line or System Supplied by Facility<br>(See Note 1 Below) | | Anniversary Month<br>(See Note 2 Below) |

**Part 1 –** To Be Completed Annually

| **This capacity check is for the year** | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Was capacity reviewed for the previous year? If No, complete Part 2 of Annual Capacity Review for Compressor Stations. | **Yes** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| | **No** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 2. Did previous review show that relief valve(s) had adequate capacity? If No, complete Part 2 of Annual Capacity Review for Compressor Stations. | **Yes** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| | **No** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Have there been any changes to the compressor(s) at this station, to pressure conditions (either inlet or outlet), to load conditions, or to supply conditions which could affect the ability of the relief valve(s) to limit the pressure to the maximum permitted by Paragraphs 192.169 and 192.201 of 49 CFR 192?<br>* If the answer if Yes, complete Part 2 of Annual Capacity Review for Compressor Stations.<br>** If answers to Items 1 and 2 were Yes and Item 3 was No, check Yes on Item 4. | **Yes** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| | **No** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 4. Relief valve(s) at this station have adequate capacity. If No, complete Part 3 of Annual Capacity Review for Compressor Stations. | **Yes** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| | **No** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Verified By**<br>(Place initials in the appropriate box.) | | | | | | | | | | | |
| **Date**<br>(Put date verified in the appropriate box.) | | | | | | | | | | | |
| **Approved By**<br>(Place initials in the appropriate box.) | | | | | | | | | | | |
| **Date**<br>(Put date approved in the appropriate box.) | | | | | | | | | | | |

**Notes:**

1. If there are compression facilities at the station supplying more than one line or system, perform a separate review for the overpressure protection devices for each line or system.
2. All pressure relief devices shall be inspected, tested, and the capacity reviewed at intervals not exceeding 15 months, but at least once each calendar year. Furthermore, in addition to the annual capacity testing, the capacity of the relief devices shall be verified immediately when changes are made which could affect the ability of the relief device to protect the connected systems.
3. The **Verified By** box is usually initialed by a technician or an M&C mechanic.
   The **Approved By** box is usually initialed by an engineer or operating supervisor/superintendent.



RETAIN THIS DOCUMENT AS A PERMANENT RECORD FOR THE LIFE OF THE FACILITY.

Material Redacted

# CAPACITY REVIEW OF RELIEF DEVICES AT COMPRESSOR STATIONS
AS REQUIRED BY PARAGRAPH 192.731 OF 49 CFR 192 (REFER TO NUMBERED DOCUMENT H-70)

**Part 2** – To be completed only if Part 1 indicates that a complete review is required.

Station Name ______________________ Date ______________

Division ______________________ District ______________

Line or System Supplied by Facility (See Note 1 Below) ______________________

This Capacity Review Is for the Year ______________________

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1. **A complete capacity review was required because:**
   - a. ☐ A capacity review was not preformed in the previous year.
   - b. ☐ The previous capacity review showed that the relief device capacity was inadequate.
   - c. ☐ Changes have been made to the equipment at the station, to pressure conditions, to load conditions, or to supply conditions which could affect the ability of the relief valves to limit the pressure to the maximum permitted by 49 CFR 192.

2. **Station Pressure Conditions**
   - P1 – Maximum upstream pressure (MAOP) __________ psig
   - P2 – Maximum normal suction pressure __________ psig
   - P3 – MAOP or MOP downstream of station __________ psig
   - P4 – Maximum permissible downstream pressure (See Para 192.169 and Para 192.201) __________ psig

3. **Compressor(s) Supplying Line or System Described Above**

| Compressor | | Max Capacity | Indicate Reference Source |
|---|---|---|---|
| Operating Diagram Designation | Model | (P1 or P2 in, P4 out) | for Capacity *(Attach calculation sheet)* |
| | | | |
| | | | |
| | | | |

4. **Maximum Supply Capability**
   - a. Total capacity of all compressors if installed in parallel. __________ scfh

     Total capacity of series compressor installation with pressure drops adjusted to give maximum flow. __________ scfh
   - b. Maximum capacity through station if limited by conditions other than compressor(s). __________ scfh

     State limiting conditions: ______________________________

**Note 1** If there are compressor facilities at the station supplying more than one line or system, perform a separate review for the overpressure protection device for each line or system.



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CAPACITY REVIEW OF RELIEF DEVICES AT **COMPRESSOR STATIONS**
AS REQUIRED BY PARAGRAPH 192.731 OF 49 CFR 192 (REFER TO NUMBERED DOCUMENT H-70)

**Part 2,** continued

Station Name ______________________ Date ______________

5. **Relief Capacity Required**
   Enter either Item 4a or Item 4b, whichever is lower. ____________ scfh

6. **Relief Device(s) Protecting Line or System Described Above**
   a. ΔP – Pressure loss resulting from valves, piping, tees, etc. ____________ Δpsi
      Describe: ______________________________________

   b.

| Relief Device(s) | | | | | | Maximum Capacity @ P4-ΔP (See Note 2) | Capacity Reference |
|---|---|---|---|---|---|---|---|
| No. | Size | Model | Serial No. | Orifice (Sq. In.) | Maximum Pressure Setting (See Note 2) | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

7. **Adequacy of Relief Capacity**
   a. Capacity shown in 6(b) is equal to or greater than relief capacity required (Item 5). Capacity adequate. Complete Item 8 below and answer Question 4 in Part 1. ____________
   b. Capacity shown in 6(b) is less than the relief capacity required (Item 5). Capacity not adequate. See Part 3. ____________

8. **The relief device(s) described above have adequate capacity** (See Note 3 Below).

| Verified By ______________ | Approved By ______________ |
|---|---|
| Date | Date |

**Note 2** Refer to Item 3 and Item 4 of Numbered Document H-70.
**Note 3** The **Verified By** box is usually initialed by the responsible gas engineer.
The **Approved By** box is usually initialed by the responsible gas engineer's supervisor.



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AS REQUIRED BY PARAGRAPH 192.731 OF 49 CFR 192 (REFER TO NUMBERED DOCUMENT H-70)

**Part 3** – To be completed only if Part 2 indicates that relief capacity is inadequate.

Station Name ______________________ Date ______________

Division ______________________ District ______________

Line or System Supplied by Facility
(See Note 1 Below) ______________________

1. Additional relief capacity required (from Part 2, Item 5, less Item 6[b]). __________ scfh
2. Corrective action to be taken:
   a. Increase relief capacity (see Item 3, this sheet). __________ scfh
   b. Other. Describe ______________________
3. If relief capacity is increased by adding an additional relief device or replacing the existing relief equipment with a relief device of larger capacity, a copy of the design calculations must be attached to this form.
4. Date capacity was found to be inadequate ______________________
5. Work to provide adequate overpressure protection completed.
   Job No. ______________ Completed on ______________

| Verified By ______________ | Approved By ______________ |
|---|---|
| Date | Date |

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The **Approved By** box is usually initialed by the responsible gas engineer's supervisor.



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