Pacific Gas and Electric Company

# CAPACITY REVIEW OF RELIEF DEVICES AT PRESSURE LIMITING AND REGULATING STATIONS AS REQUIRED BY PARAGRAPHS 192.739(B) AND 192.743 OF 49 CFR 192 (REFER TO NUMBERED DOCUMENT 11-70)

GT&D
4/10
FH-70-A

| Station Name | Area | District |
|---|---|---|
| Line or System Supplied by Facility (See Note 1 Below) | | Anniversary Month (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 PLS & Reg 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 PLS & Reg Stations. | **Yes** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| | **No** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| 3. Have there been any changes to the equipment 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? | **Yes** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| | **No** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |

* If the answer if Yes, complete Part 2 of Annual Capacity Review for PLS & Reg Stations.
** If answers to Items 1 and 2 were Yes and Item 3 was No, check Yes on Item 4.

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4. Relief valve(s) at this station have adequate capacity. If No, complete Part 3 of Annual Capacity Review for PLS & Reg Stations. | **Yes** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| | **No** | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ | ☐ |
| **Verified By** (Place initials in the appropriate box.) | | | | | | | | | | | |
| **Date** (Put date verified in the appropriate box.) | | | | | | | | | | | |
| **Approved By** (Place initials in the appropriate box.) | | | | | | | | | | | |
| **Date** (Put date approved in the appropriate box.) | | | | | | | | | | | |

**Notes:**

1. If there are regulating and overpressure 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.

[redacted]

GTR0003003

CAPACITY REVIEW OF RELIEF DEVICES AT **PRESSURE LIMITING AND REGULATING STATIONS**
AS REQUIRED BY PARAGRAPHS 192.739(B) AND 192.743 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 or regulated pressure, see Note 10 in Numbered Document H-70) _____ psig
P2 MAOP or MOP downstream of station _____ psig
P3 Maximum permissible downstream pressure (See Para 192.201) _____ psig

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

| Regulating Valve | | | | | | |
|---|---|---|---|---|---|---|
| No. | Size | Model | Inner Valve Size | Field Verified | Wide Open Capacity (@P1 in, P2 out) | Indicate Catalog Reference or Numbered Document for Capacity *(Attach calculation sheet)* |
| | | | | | | |

If more than one regulator, note if regulators are installed in series ☐ or in parallel ☐.

**4. Maximum Supply Capability**

a. Capacity of single regulator, if only one regulator. _____ scfh

Largest capacity of any regulator, if installed in parallel, for stations built before 7-3-72 that have not been rebuilt. scfh

Total capacity of both regulators, if installed in parallel, for stations built after 7-3-72. _____ scfh

b. Maximum capacity through station if limited by conditions other than regulators. scfh

State limiting conditions:

**Note 1** If there are regulating and overpressure protection 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 PRESSURE LIMITING AND REGULATING STATIONS
AS REQUIRED BY PARAGRAPHS 192.739(B) AND 192.743 OF 49 CFR 192 (REFER TO NUMBERED DOCUMENT 11-70)

**Part 2,** continued

Station Name Date

**5. Minimum Downstream Load**

The minimum load supplied from the line or system being reviewed **under any operating condition or situation.** _____ scfh

Note: Unless it can be established that this minimum load will be present under any operating condition, this load should be considered as zero.

Describe load, if present _____

**6. Relief Capacity Required**

Enter either Item 4a or Item 4b, whichever is lower. _____ scfh

Less Item 5 (if any) _____ scfh

**Minimum Relief Capacity Required** _____ scfh

**7. 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 @ P3-ΔP (See Note 2) | Capacity Reference |
|---|---|---|---|---|---|---|---|
| No. | Size | Model | Inner Valve Size | Field Verified | Maximum Pressure Setting (See Note 2) | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

**8. Adequacy of Relief Capacity**

a. Capacity shown in 7(b) is equal to or greater than relief capacity required (Item 6). Capacity adequate. See Item 9.

b. Capacity shown in 7(b) is less than the relief capacity required (Item 6). Capacity not adequate. See Part 3. _____

**9. 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 11-70.

**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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CAPACITY REVIEW OF RELIEF DEVICES AT **PRESSURE LIMITING AND REGULATING STATIONS**
AS REQUIRED BY PARAGRAPHS 192.739(B) AND 192.743 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

1. Additional relief capacity required (from Part 2, Item 6, less Item 7[b]). _____ scfh
2. Corrective action to be taken:
   a. Increase relief capacity (see Item 3, this sheet). scfh
   b. Replace relief equipment with a monitor.
   c. 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 |

**Note 1** 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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