



G A S B U L L E T I N

Subject: GS&S H-70, Revised forms for capacity review of relief devices

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Effective the date of this bulletin the following forms are to be used as part of GS&S H-70:

GS&S H-70, EXHIBIT 1

“Capacity Review of Relief Devices at Pressure Limiting and Regulating Stations 49CFR192”

GS&S H-70, EXHIBIT 2

“Capacity Review of Relief Devices at Compressor Stations 49CFR192”

Existing forms 75-491, 75-492, and 75-493 in GS&S H-70 “General Requirements - Pressure Relief Devices” are replaced by GS&S H-70, Exhibit 1. A new form GS&S H-70, Exhibit 2 has been created for relief devices at compressor stations. This new form will assist the reviewer in properly documenting the compressor capacity when computing the required relief capacities at compressor stations.

In the GS&S manual, mark the existing forms in Gas Standard H-70 “obsolete” and insert the two new forms, Exhibit 1 and Exhibit 2, attached to this bulletin. These new forms will also be available on CGT GSInfo and the DCS Intranet Web site. H-70 is being revised to incorporate the new forms and is expected to be issued in the Spring of 1998.

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CAPACITY REVIEW OF RELIEF DEVICES AT PRESSURE LIMITING AND REGULATING STATIONS AS REQUIRED BY PAR. 192.739 (b) AND PAR. 192.743 OF 49CFR192

PART II - To be completed only if part I 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 _____

1. **Complete capacity review was required because:**
 - a. _____ Capacity review was not performed in previous year.
 - b. _____ The previous capacity review showed that relief device capacity was inadequate.
 - c. _____ Changes have been made to the equipment at the station, pressure conditions, load conditions, or supply conditions which could affect the ability of the relief valves to limit the pressure to the maximum permitted by 49CFR192.

2. **Station Pressure Conditions**

P1 - Maximum upstream pressure (MAOP, or MOP if lower). _____ psig

P2 - MAOP or MOP downstream of station. _____ psig

P3 - Maximum permissible downstream pressure (see Par. 192.201). _____ psig

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

Regulating Valve				Wide Open Capacity	Indicate Catalog Reference or Gas Standard for Capacity
Size	Model	Inner Valve Size	Field Verified	P1 in , P2 out	

Regulator(s) installed in series _____; parallel _____.

4. **Maximum Supply Capability**
 - a. Total Capacity of all regulators if installed in parallel. _____ scfh

 - Total capacity of series regulator installation with pressure drops adjusted to give maximum flow. _____ scfh

Note #1. _____
If there are regulating and overpressure protection facilities at the station supplying more than one line or system, a separate review must be performed for the overpressure protection device for each line or system.

CAPACITY REVIEW OF RELIEF DEVICES AT PRESSURE LIMITING AND REGULATING STATIONS AS REQUIRED BY PAR. 192.739 (b) AND PAR. 192.743 OF 49CFR192

PART II (CONTINUED)

Station Name _____ Date _____

b. Maximum capacity through station if limited by conditions other than regulators _____ scfh
State limiting conditions: _____

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 #4a or #4b above, whichever is lower _____ scfh

Less #5 above (if any) _____ scfh

Minimum Relief Capacity Required _____ scfh

7. Relief Device(s) Protecting Line or System Described above

a.

Relief Valve					*Maximum Capacity @ P3	Capacity Reference
Size	Model	Inner Valve Size	Field Verified	Pressure Setting		

b. Total capacity restrictions from valves, piping, silencers, etc. _____ scfh
Describe: _____

c. Relief capacity available. Total of 7(a), less total of 7(b). _____ scfh

8. Adequacy of Relief Capacity

a. Capacity shown in 7(c) is equal to or greater than relief capacity required (Item #6). Capacity Adequate. See #9. _____

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

9. The relief device(s) described above have adequate capacity.

Verified by: _____ Date: _____	Approved by: _____ Date: _____
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SEE GAS STANDARD H-70 AND RETAIN THIS DOCUMENT AS A PERMANENT RECORD FOR THE LIFE OF THE FACILITY.

*Refer to Section 3.0 of Gas Standard H-70

CAPACITY REVIEW OF RELIEF DEVICES AT PRESSURE LIMITING AND REGULATING STATIONS AS REQUIRED BY PAR. 192.739(b) AND PAR. 192.743 OF 49CFR192

PART III - To be completed only if Part II indicates that relief capacity is inadequate.

Station Name _____ Date: _____

Division _____ District _____

Line or System Supplied by Facility _____

1. Additional relief capacity required (from Part II #6, less #7(c)). _____ scfh
2. Corrective action to be taken:
 - a. Increase relief capacity (see #3, this sheet). _____
 - 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: _____ Date: _____	Approved by: _____ Date: _____
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SEE GAS STANDARD H-70 AND RETAIN THIS DOCUMENT AS A PERMANENT RECORD FOR THE LIFE OF THE FACILITY.

11/3/97

**CAPACITY REVIEW OF RELIEF DEVICES AT COMPRESSOR STATIONS AS REQUIRED
BY PAR. 192.731 OF 49CFR192**

PART II - To be completed only if Part I indicates that a complete review is required.

Station Name: _____ Date: _____
 Area: _____ District _____
 Line or System Supplied by Facility (see note #1 below): _____

This Capacity Review is for the year _____

1. **Complete Capacity Review was required because:**
 - a. _____ Capacity Review was not performed in previous year.
 - b. _____ The previous Capacity Review showed that relief device capacity was inadequate.
 - c. _____ Changes have been made to the equipment at the station, pressure conditions, load conditions, or supply conditions which could affect the ability of the relief valves to limit the pressure to the maximum permitted by 49CFR192.

2. **Station Pressure Conditions**

P1 - Maximum suction pressure (MAOP, or MOP if lower) _____ psig
 P2 - Maximum normal suction pressure _____ psig
 P3 - MAOP or MOP downstream of station. _____ psig
 P4 - Maximum permissible downstream pressure (see Par. 192.169 and Par. 192.201) _____ psig

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

Compressor		Max Capacity	Indicate Reference Source for Capacity
Operating Diagram Designation	Model	P1 or P2 in, P4 out	

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

Note #1 If there are compressor facilities at the station supplying more than one line or system, a separate review must be performed for the overpressure protection devices for each line or system.

**CAPACITY REVIEW OF RELIEF DEVICES AT COMPRESSOR STATIONS AS REQUIRED
BY PAR. 192.731 OF 49CFR192**

PART II - (CONTINUED)

Station Name _____ Date _____

b. Maximum capacity through station if limited by conditions other than compressor(s) _____ scfh

State limiting conditions: _____

5. **Relief Capacity Required**
Enter either #4a or #4b above, whichever is lower. _____ scfh

6. **Relief Device(s) Protecting Line or System Described above**

a.

Relief Valve					*Maximum Capacity @ P4	Capacity Reference
Size	Model	Serial No.	Orifice, Sq. In.	Set Pressure PSIG		

b. Total capacity restrictions from valves, piping, silencers, etc. _____ scfh
Describe: _____

c. Relief capacity available. Total of 6(a), less total of 6(b). _____ scfh

7. **Adequacy of Relief Capacity**

a. Capacity shown in 6(c) is equal to or greater than relief capacity required (Item #5.) Capacity Adequate. Complete #8 below and answer question #4 in Part I. _____

b. Capacity shown in 6(c) is less than the relief capacity required (Item #5). Capacity not adequate. See Part III. _____

8. **The relief device(s) described above have adequate capacity.**

Verified by: _____ Date: _____	Approved by: _____ Date: _____
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SEE GAS STANDARD H-70 AND RETAIN THIS DOCUMENT AS A PERMANENT RECORD FOR THE LIFE OF THE FACILITY

*Refer to Section 3.0 of Gas Standard H-70

11/3/97

**CAPACITY REVIEW OF RELIEF DEVICES AT COMPRESSOR STATIONS AS REQUIRED
BY PAR. 192.731 OF 49CFR192**

PART III - To be completed only if Part II indicates that relief capacity is inadequate.

Station Name _____ Date: _____

Area _____ District _____

Line or System Supplied by Facility _____

1. Additional relief capacity required (from Part II #5, less #6 (c)). _____ scfh

2. Corrective action to be taken:

a. Increase relief capacity (see #3, this sheet) _____

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: _____ Date: _____	Approved by: _____ Date: _____
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11/3/97