Number

103

Date:

11/10/97



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

- Distribution
- Transmission

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 <u>Pressure Limiting and Regulating Stations</u> .... 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.

#### Distribution List

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#### CAPACITY REVIEW OF RELIEF DEVICES AT PRESSURE LIMITING & REGULATING STATIONS AS REQUIRED BY PARAGRAPH 192739 (b) AND PARAGRAPH 192743 OF 49CFR192

Station Name:Area:	District:					esses:	
Line or system supplied by facility (see Note #1 below)		_Anniversary	month (see	Note #2 beid	w)	000000000000000000000000000000000000000	#
PART I - To Be Completed Annually							
This capacity check is for the Year	Garage	i			T		
#1 Was capacity reviewed for previous year?	YES						
If NO, complete Part II of Annual Capacity Review for PLS & Reg stations.	NO TO						
#2 Did previous reviews how that relief valve(s) had adequate capacity?	YES						
If NO, complete Part II of Annual Capacity Review his PLS & Registations.	NO DIE						
83 Have there been any changes to the equipment at this station, pressure conditions	YES						
(either inlet or outlet), load conditions, or supply conditions which could affect	10						
the ability of the relief valve(s) to limit the pressure to the maximum	, , , , , , , , , , , , , , , , , , , ,	,	,	, ,	,		
permitted by paragraphs 192.169 and 192.201 of 49CFR192?							
ANT I DESMEN I NOTE TO THE U.S. T. S. SECTION OF SECTIO							
*If the answer is YES, complete Part II of Annual Capacity Review for PLS & Reg Sms.							
sans. **If answers so item #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 HO, complete	TYES I	T	1	T	T T	1	
Part III of Annual Capacity Review his PLS & Reg stations.	M)	+		<del>                                     </del>	+-+		-
VERIFIED BY (Place initials in the appropriate box)	194						-
secure en en fame e nommers no ensaulchen binnes en et	8.00						
DATE (Purdate verified in the appropriate box)							
der and an objective contraction was not the sound and the sound of th						1	
APPROVED BY (Place initials in the appropriate box)							
DATE (Put date approved in the appropriate box)	1111						
NAMES OF STATE OF THE STATE OF							

#### NOTES:

- 1. If there are regulating and overpressure 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.
- 2. 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. The month in which the station is modified shall become the new anaiversary month.

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 <u>PRESSURE LIMITING AND REGULATING</u> <u>STATIONS</u> AS REQUIRED BY PAR. 192.739 (b) AND PAR. 192.743 OF 49CFR192

PART	п - т	o be comp	oleted only if p	art I indicat	es that a complete revi	ew is required.
Station	Name				D	ate:
Divisio	n				District	
Line o	r Syste	m Supplied	by Facility (see	note #1 be	low)	
This C	apacit	y Review is	for the year			
1.	a b		The previous c Changes have b load conditions,	v was not pe apacity revi been made to or supply c	erformed in previous year ew showed that relief dev the equipment at the sta	vice capacity was inadequate. ition, pressure conditions, ect the ability of the relief
2. 3. R	P1 - N P2 - N P3 - N	faximum up: AAOP or M faximum pe	e Conditions stream pressure OP downstream rmissible downs olying Line or	of station. stream pres	sure (see Par. 192.201).	psig psig psig
		Res	ulating Valve		Wide Open Capacity	Indicate Catalog Reference
	Size	Model	Inner Valve Size	Field Verified	P1 in , P2 out	or Gas Standard for Capacity
4.	Maxi a. T	mum Supp otal Capaci	alled in series  By Capability  ty of all regulator  ty of series reg		ed in parallel.	 scfh
			ps adjusted to p			scfh
Note #	th	an one line	or system, a sej	parate revie	e protection facilities at t w must be performed for	he station supplying more the overpressure

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

PAF	RTII	(CONTI	NUED)				
Stati	ion Nam	e				Da	te
ı						itions other than re	egulatorsscfh
	The mir	iimum load	stream Load I supplied from ng condition or		system beinį	greviewed	scfh
	un Describ	der any op e load if p	perating condit	ion, this load	d should be	d will be present considered as ze	
1	Enter ei Less #5 Min	above (if imum Reli	r #4b above, w	quired		ed above	scfh scfh scfh
	a.	J C ****** ( )	Relief Valv		THE ROY W. C. VILLE E. C.		
			Inner Valve	re Field	Pressur e	*Maximum Capacity	Capacity
	Size	Model	Size	Verified	Setting	@ P3	Reference
			ty restrictions			ncers, etc.	scfh
	Adequa	acy of Rei	ty available. T lief Capacity wn in 7(c) is eq	qual to or gre	eater than re	elief	scfh
	b. Ca	pacity sho	uired (Item #6) wn in 7(c) is le apacity not ade	ss than the r	elief capaci		
),	The re	lief devic	e(s) describe	d above hav	e adequate	capacity.	
	Date:				Date:	by:	
	GAS ST	ΓANDARI CILITY.	O H-70 AND RE	TAINTHIS	DOCUME.	NT AS A PERMAI	NENT RECORD FOR THE LIF

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# CAPACITY REVIEW OF RELIEF DEVICES AT <u>PRESSURE LIMITING AND REGULATING</u> <u>STATIONS</u> 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.

Stat	ion Name	Date:	
Divi	sion	District	
Line	or System Supplied by Facility		
1.	Additional relief capacity required (fro	om Part II #6, less #7(c)).	scfh
2.	Corrective action to be taken:  a. Increase relief capacity (see #3, the second	onitor	
3.	If relief capacity is increased by addin replacing the existing relief equipment capacity, a copy of the design calculat	ng an additional relief device or with a relief device of larger	
4.	Date capacity was found to be inadequ	aate:	
5.	Work to provide adequate overpressu Job No(	re protection completed. Completed on:	
	Verified by: Date:	Approved by:	

SEE GAS STANDARD H-70 AND RETAIN THIS DOCUMENT AS A PERMANENT RECORD FOR THE LIFE OF THE FACILITY.

#### CAPACITY REVIEW OF RELIEF DEVICES AT COMPRESSOR STATIONS AS REQUIRED BY PARAGRAPH 192,731 OF 49CFR192

Station Name:Area:	Dst	KERT LEE	
Line or system supplied by facility (see Note #1 below)			
PART I - To Be Completed Annually			
This capacity check is for the Year			
#I Was capacity reviewed for previous year?	YES		
If NO, complete Part II of Annual Capacity Review for Compressor Stations.	NO		
#2 Did previous reviews how that relief valve(s) had adequate capacity?	YES		
If NO, complete Part If of Annual Capacity Review for Compressor Stations.	NO		
Have there been any changes to the compressor(s) at this station, pressure conditions	YES		
(either injet or outlet), load conditions, or supply conditions which could affect	NO TO		-
the ability of the relief valve(s) to limit the pressure to the maximum permitted		mankananan hamanakan	
by paragraphs 152,169 and 192,201 of the 49CFR192?			- Contraction
ang grandagganagrane vision sant an innomination of the next of the sant sant of			
"If the answer is YES, complete Part II of Annual Capacity Review for Compressor			- Contain
Stor.			1
**If am wers to Item #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	YES		
Part III of Annual capacity review for Compressor Stations.	100		
VERIFIED BY (Place initials in the appropriate box)			
DATE (Put date verified in the appropriate box)			100000000000000000000000000000000000000
APPROVED BY (Place initials in the appropriate box)			
DATE (Put date approved in the appropriate box)			
\$ \$\tilde{K}^{\tilde{\tilde{K}}}\$ \$\tilde{K}^{\tilde{K}}\$\$.			

#### NOTES:

- If there are compression 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.
- 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. The month in which the station is modified shall become the new anniversary month.

SEE GAS STANDARD H-70 AND RETAIN THIS DOCUMENT AS A PERMANENT RECORD FOR THE LIFE OF THE FACILITY.

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## CAPACITY REVIEW OF RELIEF DEVICES AT <u>COMPRESSOR STATIONS</u> 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. \_\_\_\_\_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) P2 - Maximum normal suction pressure P3 - MAOP or MOP downstream of station. P4 - Maximum permissible downstream pressure (see Par. 192.169 and Par. 192.201) \_\_\_\_\_psig 3. Compressor(s) Supplying Line or System Described Above Compressor Indicate Reference Max Capacity 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.

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

ition	Name					Date		
b.		ximum capac npressor(s)	city through sta	ation if limite	ed by conditions		scfh	
	Sta	te limiting co	onditions:					
		apacity Re her #4a or #	<b>quired</b> :4b above, whi	chever is lo	wer.		scfh	
R d.	elief D	evice(s) Pr	otecting Line	or System	n Described abo	ove		
			Relief	Valve		*Maximum	Capacity	
4	Size	Model	Serial No.	Orifice, Sq. In.	Set Pressure PSIG	Capacity @ P4	Reference	
b.	Desc	cribe:			ping, silencers, o		scfh	
				1010(4), 103	is total of o(b).		ясш	
Ac a.	Ca re-	quired (Item	min6(c)iseq	Adequate.	ater than relief o			
b.			vn in 6(c) is les pacity not adec		elief capacity re Part III.	quired -		
	ie reli				adequate capac	city.		
Tl							_	

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\*Refer to Section 3.0 of Gas Standard H-70

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### CAPACITY REVIEW OF RELIEF DEVICES AT <u>COMPRESSOR STATIONS</u> AS REQUIRED BY PAR. 192.731 OF 49CFR192

### <u>PART III - </u> To be completed only if Part II indicates that relief capacity is inadequate. Station Name \_\_\_\_\_ Date: \_\_\_\_\_ \_\_\_\_\_\_\_District \_\_\_\_\_\_ Area 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: \_\_\_ Approved by: \_\_ Date:

SEE GAS STANDARD H-70 AND RETAIN THIS DOCUMENT AS A PERMANENT RECORD FOR THE LIFE OF THE FACILITY