E - DATA SHEET
ATING AT OR OVER 20% SMYS

PURPOSE

This drawing lists the operating limitations and design pressure requirements of backbone and local transmission pipelines, distribution feeder mains (DFMs), and pipe-type high pressure gas underground holders operating at or above 20% of the SMYS.

This drawing is intended to assist Gas System Operations and GT&D in the operations, planning, pipeline maintenance, repairs, and upgrades.

REFERENCE

See DCS/GTS Standard D-S0430 / S4125 for requirements for establishing and revising the MAOP and MOP of pipeline facilities listed in this drawing.

CHANGES AND CORRECTIONS

sent to:

Manager, Pipeline Engineering
Gas Design and Planning Department
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INDEX

DEFINITIONS

(MOP), Maximum Allowable Operating Pressure (MAOP), and Future Design Pressure (FDP).

GENERAL NOTES

1. Beginning and ending milepoints are shown for transmission numbered pipelines and pipeline segments. Milepoints are not listed for DFMs or collection systems, but are available in GIS system.
2. Notes on MOP limitations are provided in cases where additional information is needed to clarify the reasons or operating circumstances for the limitation. The notes do not address all possible pipeline configurations (e.g., at cross-ties). The information in this drawing should be used in conjunction with operating maps and diagrams to determine operating limitations for specific pipeline configurations or operating scenarios.
3. The MAOP shown is the minimum MAOP for that pipeline or pipeline segment. Sections of the pipeline within a particular pipeline system may be qualified for a greater MAOP. Consult the GIS system database to verify MAOPs and FDPs prior to designing modifications.
4. than 20% SMYS are included in the table. These transmission lines are designated by an asterisk (*) in column A, and DFMs are designated by an (X) in column B.
5. This database provides summary of piping systems operating over 20% of SMYS. Due diligence should be exercised when using this data for operating or design purposes. GIS data and other company records should be researched prior to making any significant system modifications.

CURRENT REVISION

Rev. 14.1. Removed L-155; Updated L-156, 162, 197B&C, Stockton's DFMs. RTA 5/22/02.
7/2/02
Rev. 14.3 Updated FDP of {Redacted} . DFM in Area 2 (Mission) to 650psig. RTA 8/15/02
Rev. 14.4 Updated El Monte DFM (8802-1) based on uprating. RTA 12/10/02
Rev. 14.5 Updated Line 131 FDP between MP 16.88 to 50.57. RTA 1/13/03
Revision 15. Approved by Doug Davis 3/1/03
6/18/03
Revision 15.2 Updated Line 108 at MP 0.00 to 11.70. RTArita 7/21/03
10/22/03
Revision 15.4 Updated Line 132 MAOP to 400 psig. RTA 12/10/03
Revision 15.5 Updated Line 186 MOP. RTA 12/17/03
Revision 15.6 Updated Lines 141, 141W, & !41E FDP & MAOP. RTA 1/9/04
Revision 15.7 Deleted L-141(retired) & 141 E (converted to DFM). RTA 2/3/04
Revision 15.8 Deleted several gas field collection systems. RTA 3/1/04
3/8/04
Revision 16. Approved by Eric Kirkpatrick 3/15/04

5/28/04
Revision 16.2 Updated Line 114 MAOP. RTA 9/9/04
11/17/04
Revision 16.4 Added Los Banos DFM RTA 1/4/05
Revision 16.5 Corrected MAOP of Line 128. RTA 2/8//05
Revision 17. Approved by Dan Thomas 3/10/05
6/10/05
Revision 17.2 Added L-108 MP 0.0-4.59 segment with correct MAOP. RTA7/6/05
Revision 17.3 Added {Redacted} , Almaden Xpwy DFM. RTA 8/18/05
8/22/05
9/20/05
11/1/05
11/22/05
Revision 17.8 Corrected MAOP/MOP of Carmel Valley Feeder DFM. RTA 1/3/06
1/10/06
Revision 17.10 Updated press on L-114 (MP 26.84-28.97), &118A/E RTA 3/2/06
RTA5/8/06
10/2/06
Revision 17.13 Updated the DFM data. Multiple changes. RTA 8/29/07
9/13/07
Revision 17.15 Updated Line 138B MAOP/MOP/FDP. RTA 10/2/07
10/30/07
Revision 17.17 Update MAOP of L21H (MP 0.0-1.07) RTA 11/08/07
11/26/07
12/17/07
Revision 18. Approved by Todd Hogenson 12/31/07
1/16/08
RTA3/15/08
3/27/08
3/31/08
Revision 18.5 Corrected the MAOP & FDP for L138B to 945 psig. TLA 6/20/08.
Revision 19 added footnote (10) to 138B, clarified footnote 10. Approved by TRH.
8/18/08
Revision 20. Approved by Todd Hogenson 3/15/10

Line Number	MP	to	MP	Description	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
				MAOP OF NUMBERED TRANSMISSION LINES				
2	{Redacted}				26,36	890	890	890
2					26	890	890	890
2					26	890	890	890
21A					8,12,24,26	450	450	675
21B					12,16	450	450	450
21C					12,16,20	450	450	675
21C-1					12	450	450	593
21D					16	450	500	675
21D-1					12,16	450	675	675
21E					8,10,12,16	610 (32)	720	890
21F					12,16,20	450	500	500
21G				{Redacted}		450	500	500
21H					24,26	400	473	650
21H					24	400	675	675
21H					12,16	250	375	585
21H					16	250	258	575
21H					12,16	250	275	585
*50A-1					8, 12	400	400	585
*50A					8	250	250	720
*50A					6,8	250	250	720
*50A					6,8,10,12	400	400	686
50B					8	400	720	720
56					4	1,300	1,300	1,300
56					4,8	1,300	1,440	1,440
57					4-12	2,160	2,160	2,160
57A					14,16,18	722	722	867
57B					22	2,160	2,160	2,160
57C					24	2160	2160	2160
65					12,20,22	600	720	720
65					4,20,22	1,800	1,800	1,800
100					20	375 (8)	400	546
101					20,24,30,34,36	375 (8)	400	400
101					20	375 (8)	396	
*101					20,24	145 (1)	275	275
*103					12	350	350	500
*103					8,10,12	313	313	500
*105A					20,24,30	150	198	275
105B					24	400	473	437
105B					16	400	675	675

Line Number	MP	to	MP	Description	MAOP OF NUMBERED TRANSMISSION LINES	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
105C						20,22,24	150	198	
105N						20	250	250	590
105N-2						16,22,24	250	250	500
105N						20-34	250	250	371
*105N						16,20,24-34	150	198	275
107						22,24,36	477	477	500
107S						22,24	477	477	500
107S						36	477	720	720
108						24	720	1,040	720
108						24	720	720	720
108						16, 24	408	408	720
108						16, 24	412	412	720
108						16	412	490	500
108						24"	412	720	
108						16,20,24	412	412	500
109						22,24,30,34	375	375	400
*109						24,26,30,34	145 (1)	150	275
111-A						12,16	650	650	720
111-A						8	400	400	720
111B						16	650	650	
112						3-8	720	720	800
114						12,16	510	510	800
114						12	720 (3)	800	800
114						20,22,24	497 (4)	497	595
114						22,24,36	497 (5)	595	595
114						20, 22	497(5)	595	
114						36	497	595	
115						2	450	675	675
116						12	720	720	720
*116						8	200 (31)	500	800
116						16	720	720	720
116						16	720	720	720
116						16, 24	720	720	720
*118A						8	400	400	500
*118A						12	400	400	720
*118A						8,12	400	400	500
118A						6,12	400	720	720

Line Number	MP	to	MP	Description	MAOP OF NUMBERED TRANSMISSION LINES	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
118A						6,8,10	400	400	400
118A/E						6,8	890	890	890
118B						12	400	400	720
118D						8	400	720	720
119A						12	792	792	800
119A						12,16	720	720	720
119A						10,12,20	720	720	720
119B						12,16	500	500	500
119C						16	500	500	500
119D						6	180	500	500
120						4,6	485 (6)	492	720
120						4,6	485	485	720
121						6	485	485	720
121						8	485	975	975
121						8	485	720	720
121-1						8	485	720	720
123						12,16	500	500	670
124A						12,16	600	600	720
124B						8,10	400	400	720
124C						6	600	600	720
*124C-1						4,6	395	400	720
125						4	350	448	720
125						2-6	448	448	720
126A						6	350	425	720
126A						6	167	167	713
126B						4	350	425	720
126C						10	167	167	713
*126D						10	167	167	713
128						3,4,6	479	479	720
130A						10	800 (16)	800	800
130B						10	99	99	800
131Y						10,12	510 (7)	720	720
131Z						10,12	510 (7)	685	800
131						10,12	685 (7)	720	720
131						24	495	495	600
131						24	500	525	600
131						24	500	525	600

Line Number	MP	to	MP	Description	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
				MAOP OF NUMBERED TRANSMISSION LINES				
131					30,34	590	595	650
132					24,30,34,36	375 (8)	400	400
132					24	145	145	275
132A					16,24	375 (8)	400	400
132B					20,24	145 (9)	275	275
134					3,4,6,8	500	500	720
134					4	500	500	720
136					6,8	550	550	720
*137A					6,8	167	167	275
137B					8	350	350	720
*137C					4	167	167	275
137D					10	250	350	
138					18	800 (10)	865	865
138					18	650	650	865
138					16	650	650	720
138					10,12,16	650	650	720
138					16	650	650	720
138					10	650	720	720
138A					16	800 (10)	862	862
138B					20	800 (10)	945	800
142N	{Redacted}				12,16,20,24	475	475	720
142S					10	478	600	720
*142S					10	300	300	720
*143					3,4	792	800	800
144					10,12	792	796	800
146					8	510	796	800
147					20,24	375	400	400
148					8	408	408	720
150					6	125 (31)	750	800
150					6	200 (31)	750	800
151					6	250	250	720
153					24,30,32,34	420	420	500
*153					16,20,24,30	246	246	275
153					16	420	420	500
*153					20,24,30	150	198	542
156					6	550	680	800
158					6	800	800	800
158					6	500	564	800
159					4	~~975~~	~~975~~	~~1,000~~

Line Number	MP	to	MP	Description	MAOP OF NUMBERED TRANSMISSION LINES	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
159						4	975	975	1,000
159						4,8	125 (31)	750	800
*162						4, 6, 8, 10	365	365	720
164						8,10,16	498	498	865
167						12,16	800	800	800
167						10	800	800	800
167						8	800	800	800
167						3	800	800	800
168						2-8	800 (11)	800	800
169 A/B/C						3-20	800	800	800
172A						18,20	800	800	800
172A						12,16,18	500	520	720
172B						6,10	800	800	800
172C						12	720	720	720
172D						6"	800	800	
*173						4,6,8,12	500	500	670
*174						2-10	800	800	800
176						6,8	365	555	
177						12	819	819	960
177A						16	819	819	960
177A						10	819	819	960
177L						6,8	819	819	960
177A						12	819	819	960
177A						12	819	819	960
177A						12	430	430	720
177A						12	350 (12)	425	600
177B						10	819	819	960
177B						6,10	469	469	600
177E						6	819	819	960
181A-10						12	500	500	
181A						10,12	303	303	400
181B						10	500	500	500
181B						10,16,20	400	400	500
*182						8,10	510	510	800

Line Number	MP	to	MP	Description	MAOP OF NUMBERED TRANSMISSION LINES	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
182						2-6	510	510	800
183						3	175	320	800
185						4	396	396	600
186						3,4,6	270 (30)	625	720
186						2,3,4	270 (30)	960	960
*187						6	313	313	500
*187						8	313	313	500
189						10	350 (14)	425	720
190						12,16	840	1,440	2,160
191						30,34	600	600	600
191						16	600	600	600
191						20,24	338 (15)	390	600
191						24	338(15)	390	
191						12,16,20	338	338	600
*191						8,10,12	268	283	400
*191						10	268	270	400
*191						10	268	268	400
*191A						3,6,8	268	283	400
*191B						8	268	283	400
193						2-8	819	960	960
193						4,6,8	819	960	960
193						6	819	819	960
194						2-10	720	720	800
195						2-16	800 (16)	800	800
*195						2-16	110	110	800
195Y						12	510 (7)	720	
195Z						12	510 (7)	720	
196						4,6	800	800	800
196						8,12,16	800 (16)	800	800
197A						10	300 (28)	388	720
197A						10,12	300 (28)	720	720
197A						8,12	300 (28)	320	720
197B						6,12	300 (28)	388	720
197C						4, 6, 10	300 (28)	720	720
199						3-8	792	796	800
200						2-16	800 (17)	800	800
*200						2-16	110	110	800
200						12	510	800	800

Line Number	MP	to	MP	Description	MAOP OF NUMBERED TRANSMISSION LINES	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
200						3-10	510 (17)	868	960
201						2-12	800	960	960
202						6,8	600 (34)	720	720
206						12	975 (18)	1,440	1440
207						4,6,8	800	1,000	1,000
208						12	825 (19)	1,000	1,000
209						4	479 (20)	720	720
210A						10	650	650	800
210A						24,32,34,36	650	650	675
210A						10,12,24,32	650	650	675
210B						16	800	800	800
210B						16,18	650	650	720
210C						24	650	675	675
210C-1						18	650	720	720
213						3,4	819	960	960
215						12	890	890	890
220-1						16	792	800	800
220						10,16	792	796	800
220						6,8	500	500	500
222						2,3	365	1,040	
300						24	890	890	890
300A						30,34	660 (21)	700	700
300A						34,40	865 (22)	867	890
300A						34	779 (22)	815	815
300A						34	682 (22)	688	688
300A						24,26,34	573	573	573
300A						34	860 (22)	861	890
300A						34	766 (22)	803	817
300A						34	754 (22)	757	757
300A						32,34	668 (22)	669	688
300A						24,34,36	839 (22)	840	890
300A						34, 36	631 (33)	631	715
300A						34	555 (22)	558	676
300B						34	660	660	735
300B						24,34,40	865 (22)	867	894
300B						24,34	779 (22)	821	821
300B						34	682 (22)	688	688
300B						34	573 (22)	573	573
300B						24,34,40	860 (22)	861	897
300B						34	766 (22)	803	816

Line Number	MP	to	MP	Description	MAOP OF NUMBERED TRANSMISSION LINES	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
300B						34,36	754 (22)	757	757
300B						34	668 (22)	669	688
300B						34	839 (22)	840	890
300B						34,36	631 (33)	631	715
300B						34,36	597 (22)	600	669
301A						20	396	396	500
301B						12	408	408	408
*301C						12	408	408	408
301D						10	500	500	500
*301E						12	408	408	408
*301F						16	408	412	412
301G						24,30	500	500	500
301H						16	500	500	500
302						2-20	975	975	1000
302W						20	975	975	1000
303						36	720	720	720
303						36	720 (23)	793	864
303						36	720 (23)	776	864
303						36	720 (23)	864	864
303						36	720	731	877
303						36	590	590	600
304						12	825	825	825
304						3-12	825	825	825
306						20	839	840	840
306						20	636 (26)	650	840
307						8	500	500	915
307						10	500	890	890
307						8	500	890	915
310						10,12	840	890	890
311						10,12	700	700	960
311						12	700	810	960
312						8	757	757	820
313						8,10	573	573	720
314						12	861	861	890
314						10	550	550	720
*314						8,10	550	550	720
*314A						8	550	550	720
*314B						8	550	550	720
*316						2-12	720	720	800

Line Number	MP	to	MP	Description	MAOP OF NUMBERED TRANSMISSION LINES	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
316						16	497 (4)	720	720
318						3,4,6	907(24)	911	960
319						34	754(27)	1,440	1,440
319A						4	754(27)	1,440	1,440
331A						4,6	890	890	890
331B						6	890	890	890
339						4	819	819	960
351						16", 30"	650	1,040	
352						12", 24"	650	890	
372						6	700	700	960
375						16	475	833	780
375						8,12,16	475	833	780
375A						8	475	833	780
375B						6	475	833	780
375C						6	475	833	780
375D						6	475	833	780
376						6,8,10	780	780	780
377						6	771	720	780
379						2	890	890	
400						36	911	911	911
400						36	905(24)	911	
400						36	881(24)	911	
400						36	884(29)	911	942
400						36	884(29)	915	942
400						26,36	865(24)	911	911
400						36	907(24)	911	911
400						36	1,040	1,040	1,040
400						26,36	965(24)	975	975
401						42	911	911	911
401						36,42	911	911	911
401						42	887(24)	911	911
401						42	884(29)	911	911
401						---	---	---	911
401						---	---	---	
401						42	884(29)	942	942
401						42	865(24)	911	911
401						36,42	907(24)	911	911
401						42	1,040	1,040	1,040
401						42	965(24)	975	975

Line Number	MP	to	MP	Description	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
				MAOP OF NUMBERED TRANSMISSION LINES				
401					36	1,040	1,040	1,040
402					8,10,12	600	600	720
403					16	800 (25)	800	855
404					2,4	911	911	911

Notes:

continuity.

red Notes

(1) The MOP of this section of L-101 and L-109 is restricted to 145 psig since they are connected to L-132 at a common header at SF Gas Load Center.

(2) This section of L-108 has a 175 psig MOP when operated in conjunction with the Pacific Paperboard Feeder.

(3) This section of L-114 has a 510 psig MOP when Block Valve 8.31 is open.

(4) This section of L-114 has a 438 psig MOP when run in conjunction with the Antioch header.

(5) This section of L-114 has a 497 psig MOP when run in conjunction of Line 114 north of Brentwood Terminal or Line 131 (500 MOP).

(6) This section of L-120 is directly tied to Sutter Buttes Field Collection System which has a MOP of 485 psig.

(7) This section of Line 131 (N/O Antioch), 131Y, 131Z, and 195Y have a 510 MOP when operated in conjunction with Line 114 (with V-8.31 is open) and 685 MOP when not.

(8) The MOP of Lines 100, 101, & 132 is reduced because these lines are connected directly to Line 109 (375 psig) at Milpitas Terminal.

(9) The MOP of L-132B is limited due to the MAOP of L-132 between Martin Reg Sta and SF Gas Load Center. However, when operated as a backfeed to L-101 through the crosstie at L-101, the MOP is 275 psig.

(10) This section of L-138A & 138B has a 800 psig MOP because of the limitation of the operating pressure Helm Junction Station piping.

(11) The MOP of Line 168 shall be 685 psig when operated in conjunction with L-131Z.

(12) The MOP of this section of L-177 is limited due to the MAOP of the 8" L-137 between Ryan Slough Reg Sta & Arcata Reg Sta.

(13) Not used.

(14) The MOP of this section of L-189 is limited due to the MAOP of L-126 between Tompkins Hill Mtr & Reg & Union St Reg Stations.

(15) The MOP of this section of line is 390 psig when V9.93 at SP3-L-191 Mtr Sta is CLOSED.

(16) The MOP of this section of L-130A,195 &196 is 685 psig when it is operated in conjunction with L-131Z.

(17) The MOP of this section of L-200 is 510 psig when it is operated in conjunction with 450 psig system.

(18) The MOP of this section of L-206 is limited due to the MAOP of L-400 at MP258.34.

(19) The MOP of this section of L-208 is limited due to the MAOP of L-304 at Lathrop Dehyd & Reg Sta.

(20) The MOP of this section of L-209 is limited due to the MAOP of L-128.

(21) When this section of L-300A is tied directly to L-300B, the MOP is limited to 660 psig.

(22) Maximum operating pressures shown for segments of L-300 A & B are due to elevation differences. The MOP listed is for MOP at the facilities supplying the various line segments.

(23) The MOP of this section of line is 720 psig if V-7.95 (Brentwood Terminal) is opened. Furthermore, Division regulation, crosstied to both L-114 and L-303, has an MAOP of 595 psig. If it becomes necessary to feed regulation from L-303, the MAOP of L-303 becomes 595 psig.

(24) Maximum operating pressures shown for segments of L-400/401 are due to elevation differences. The MOP listed is for MOP at the facilities supplying the various line segments.

Line Number	MP	to	MP	Description	MAOP OF NUMBERED TRANSMISSION LINES	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)
(25) The MOP of this section of line is restricted to 650 psig when operating in conjunction with 10" L-210A.									
(26) The MOP listed is the MOP at Estrella PLS. The reduced MOP is to compensate for the hydrulic head effect cause by elevation drop in the pipeline.									
(27) The MOP of Line 319 is 754 psig when operating in conjunction with Line 300A at Kern River Station.									
(28) The MOP of Line 197A/B/C is limited due to the MAOP of Turner Road Feeder.									
(29) The section of L-400/401 downstream of Burney Compressor Station has a MOP of 911 if the flowrate at Burney exceeds 1135 Mmscf/day.									
(30) The MOP of Line 186 is based on the highest operating pressure 5 years prior to 12/17/03. Per 192.917 requirement for ERW pipe.									
(31) The MOP is lowered to reduced pipeline risk. Do not raise the MOP without approval of the Risk Management Group.									
(32) The MOP is lowered due to potential low frequency ERW issues. Do not raise the MOP without approval of the Risk Management Group.									
(33) Maximum operating pressures shown for segments of L-300 A & B are due to elevation differences. The MOP listed is for MOP at the facilities supplying the various line segments. For PLS6, regulation setpoints = 620 due to downstream elevation drop.									
(34) The MOP of this section of L-202 is limited due to the MAOP of the pipeline supply from L-124A and 124C.									
s change from previous revision.									

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)
890
890
890
675
720
675
675
675
675
720
500
500
675
675
585
585
585
720
720
720
720
720
1440
1440
2160
867
2160
2160
720
1800
400
400
400
275
500
500
275
675
675

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)
275
500
500
500
275
720
720
720
1,040
720
720
720
720
720
720
400
275
720
720
720
890
800
800
720
720
720
720
675
720
720
720
720
720
500
720
500
720

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)
720
890
720
720
800
720
720
720
720
720
720
720
720
975
975
720
720
720
720
720
720
720
720
720
425
275
425
600
600
720
800
720
720
720
720
720
720
720

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)
650
400
275
400
275
720
720
720
275
600
275
600
890
720
720
720
720
720
862
945
720
720
720
800
800
800
400
720
800
800
720
500
275
500
500
800
800
800
~~975~~

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)
975
975
720
890
800
800
800
800
800
800
800
720
800
720
800
720
800
365
960
960
960
960
960
960
720
600
960
720
960
500
400
500
500
800

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)
800
800
500
720
960
720
720
600
2,160
600
600
600
600
600
400
400
400
400
400
960
960
960
800
800
510
800
800
800
800
720
720
720
720
720
800
800
510
800

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)
960
960
720
1440
960
1000
720
800
720
720
800
720
720
675
960
890
800
800
800
1040
890
700
890
815
688
688
890
817
757
688
890
631
676
735
894
821
688
688
897
816

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)
757
688
890
631
669
500
408
408
500
408
412
500
500
975
975
720
864
864
864
877
877
825
890
840
840
890
890
890
890
890
890
820
573
890
720
720
720
720
720

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)
720
960
1,440
1,440
890
890
960
1,040
890
960
780
780
780
780
780
780
780
780
890
911
911
911
911
942
911
911
1,040
975
911
911
911
911
911
942
942
911
911
1040
975

Future Design Pressure (psig)
1040
720
800
911

MAOP OF NUMBERED TRANSMISSION LINES

Future Design Pressure (psig)

MAOP OF NUMBERED TRANSMISSION LINES

		MAOP OF DFMS OPERATING AT OR OVER 20% SMYS			Min. MAOP	Min. DP	Future
	Operating less than		Pipe Diameter	MOP	for Segment	for any Segment	Design Pressure
Route #	20%	Description	(inches)	(psig)	(psig)	(psig)	(psig)
Area 1 (Peninsula)							
0210-01		{Redacted}	8,10,12	375	400	400	400
0215-01			8	375	400	400	400
0211-01			6,8	375	400	400	400
0203-01			10	375	400	400	400
0201-01	X		8	120	124		175
0204-01			4,6	375/170	400/175	400/175	400/175
0205-01	X		2,3,4,6	130	400/230	400/175	400/230
0206-01	X		3,6	110	400		400
0207-01	X		4,6,8	375/125	400/140		400/175
0208-01			4,6,8	150	150		400
0209-01			6	150	150		400/175
0214-01	X		6,8,10	375/170	400/180		400/175
0217-01	X		6,8	375/175	400/175		400/175
0203-05	X		4	375			
0210-03	X		2	375			
0223-03			2	275	400		
0213-02			6,8	375	400		
0213-02			6,8	90	90		
0220-01			20	90	150		
0224-01	X		4,8	145	275		
DREG4200			3,8	375	400	400	400
DREG4207			8,10,24	375	400	400	400
DREG4738	X		4,6	375	400		400
DCUST5760	X		3,4	175	175		175
Area 1 (San Francisco)							
1401-01		{Redacted}	20	145	145	275	275
1402-01	X		16,24	145	145		275
1403-01	X		8	145	145		275
1404-01	X		2	145	145		275
1405-01	X		3,4	145	145		275
1406-01			2,4,12	145	145		275

		MAOP OF DFMS OPERATING AT OR OVER 20% SMYS			Min. MAOP	Min. DP	Future
Route #	Operating less than 20%	Description	Pipe Diameter (inches)	MOP (psig)	for Segment (psig)	for any Segment (psig)	Design Pressure (psig)
Area 2 (Diablo)							
3008-01		{Redacted}	6,8,10,12	170	170	600	600
3017-01			6,8,10	338	365	600	600
3022-03			4,6,8	400	400	400	400
3022-01			3,4	722	837	867	867
3004-01			8,12	338	338	600	600
3014-01			4	338	338	600	600
3012-01			12	338	338	600	600
3005-01			12	338	338	600	600
3010-01			8	338	338	600	600
Area 2 (East Bay)							
0128-01		{Redacted}	4,6	315	338	600	600
0126-01			22	400	400	400	400
0122-01			12	400	400	400	400
105N-3			16, 20	150	198	275	275
Area 2 (Mission)							
2402-01		{Redacted}	12	250	250		500
2403-12			12	411	411	500	500
2405-01			4	590	650	650	650
2406-01			4	590	590		650
2408-01			8	160	160		650
2408-05			12,16	500	500	656	650
2408-05 2408-17			8, 12	215	215		275
2408-11			12	500	656	656	650
Area 3 (DeAnza)							
8806-01 8807-01 8807-02		{Redacted}	6, 8,10,12,16,20	180	180	200	200
8802-01	X		4, 6, 8	201	242		275
8805-03 8805-23 8805-04		{Redacted}	10, 12, 16	180	180		
8832-01			2, 4, 6	375	375		400
8809-04	X		10, 12	200	200		
8808-02	X		6	200	200		
GCUST5813	X		6,10	400	400		720
Area 3 (Salinas)							

		MAOP OF DFMS OPERATING AT OR OVER 20% SMYS			Min. MAOP	Min. DP	Future
	Operating less than		Pipe Diameter	MOP	for Segment	for any Segment	Design Pressure
Route #	20%	Description	(inches)	(psig)	(psig)	(psig)	(psig)
1816-01		{Redacted}	8,10,12	303	303	400	400
1817-01			10,12	400	400	400	400
1818-01			3,12,16	303	303	400	400
1815-15			8,10	313	313	408	408
1822-01			6	408	500	408	408
1823-01			4,6	500	500	500	500
1816-20			6	300	400	400	400
1813-02			8,10,12,16	313	313	408	408
1815-02			8,10,12	313	313	408	408
1815-15			8,10	125	125		400
1822-01			6	408	500		500
1823-01			4,6	500	500		500
1816-15			8,6	300	303		400
1816-05			3,4	300	303		400
1817-03			4,6	300	303		400
1819-01			3,4,6	300	303		400
1880-02	70		4	350	350		500
1881-01			8	350	350		500
1812-13	X		6	313	313		500
1869-01			6	350	350		500
1805-01-02			3,4,6,8,10	130	130		500
1870-01			3	300	303		400
1816-50			10	300	400		400
1880-08			2	350	350		400
DCUST2139			3	313	313	500	500
DCUST2139			3	313	313		500
DREG4259			4	313	313		500
DREG5419			4,6	500	500		500
N/A			4	130	145		400
N/A			6	135	135		500
N/A			6,8	313	313		500
Area 3 (San Jose)							
0801-01	X	{Redacted}	6	400	400		400
0804-01			6, 8, 24	375	375		400
0804-03			6, 8, 12	180	180		
0804-14, 05,08,16,10, 11,12	X		2,6,8,12	180	180		
0806-01	X		2,6	200	200		400
0807-01			6	400	400		400
0809-01 0809-02			2, 3, 4, 6	250	250		250
0805-01			16,20,24,30	200	200	275	400
0810-01			6	120	120		
0812-01	X		4,6,12,20,24	200	200		275

		MAOP OF DFMS OPERATING AT OR OVER 20% SMYS			Min. MAOP	Min. DP	Future
	Operating less than		Pipe Diameter	MOP	for Segment	for any Segment	Design Pressure
Route #	20%	Description	(inches)	(psig)	(psig)	(psig)	(psig)
0813-01,02,07, 0814-04,05			6,8,10,12	400	400		400
0813-08,09,13			6,8,	242	242		400
0840-01			6	200*	242		400
0815-01	X		3	100	100		
0817-01			8	200	200		400
0820-01			4,6	175	170		720
0821-01 0821-02	X		8,10,16,24	200	200		275
0822-01			2,4,6	320	320		320
0824-01			10	600	600		669
0824-02	X		12	200	200		275
0826-01			2,4	250	400		400
0829-01	X		3,4	170	175		
0832-01			3,4,6	335	335		335
0833-01			6,8,10,16	400	400	400	400
0833-02			8, 10	395	400		400
0833-03	X		2	395	500		
0833-04	X		6, 8	400	400		400
0834-01			6	300	300		
0837-01			12	200	200		275
0840-01	X		6	200	242		242
Area 4 (Kern)							
6607-01,03		{Redacted}	4,6,8	861	897	897	897
6607-01,02			4,6,8	490	490	720	720
181A79(300 A)			6	861	897	897	897
DREG5496			8	400	400		450
Area 4 (Fresno)							
1208-01		{Redacted}	8	263	263	400	400
1217-01			4,6	400	593	720	720
1202-17,16			6,12	650	650	720	720
1211-01			10	498	890	890	890
1211-03			8,10	498	720	720	720
1211-04			6	498	890		890
1202-01-09,12	X		6,8,10,16	204	204		720
7212-01, 1201-01			4	500	500	720	720

		MAOP OF DFMS OPERATING AT OR OVER 20% SMYS			Min. MAOP	Min. DP	Future
	Operating less than		Pipe Diameter	MOP	for Segment	for any Segment	Design Pressure
Route #	20%	Description	(inches)	(psig)	(psig)	(psig)	(psig)
7212-01 1201-02			4	283	283		720
1202-11			12	204	720		720
1209-05			6,8	650	720	720	720
1204-01			3	650	800	900	900
1206-01			6	650	650	800	720
Area 5 (Modesto)							
7218-01		{Redacted}	4,12	408	720	720	720
7227-01			6,8	408	720	720	720
7221-15			4,6,8,12	408	408	720	720
7219-01			4,6	408	408	720	720
7221-10			8,12,16	408	408	720	720
1603-03 1603-01			8,10	408	408	720	720
7216-01			6	500	890	890	890
Area 5 (Merced)							
7205-01		{Redacted}	6,8	400	400	400	720
7202-01			4	400	720	720	720
7201-01			4,6	400	400	720	720
7206-01			6	400	400	720	720
7204-01			6	400	720	720	720
7208-01			4	400	400	720	720
7207-01			4	500	890	890	890
7211-02			4	400	720		720
			4	500	720	720	720
7203-02			4	620	620		620
7208-02			4	400	500		620
7205-04			8	400	400	400	400
7204-02			4	400	720	720	720
7213-01			4	720	720	720	720
7209-01			8	720	720	720	720
7210-01			4, 6	394	394		720
Area 5 (Stockton)							
1605-01		{Redacted}	6	412	720	720	720
1606-01			6,8	412	720	720	720
1609-01			6,8	412	720	720	720
1613-01			6,8	412	500	720	720
1604-01			6	412	720	720	720
1611-04			4, 6, 8	412	426	720	720
1608-01			12	175	188		400

		MAOP OF DFMS OPERATING AT OR OVER 20% SMYS			Min. MAOP	Min. DP	Future
	Operating less than		Pipe Diameter	MOP	for Segment	for any Segment	Design Pressure
Route #	20%	Description	(inches)	(psig)	(psig)	(psig)	(psig)
1603-03							
1603-01		{Redacted}	8,10	408	408	720	720
1601-03			4, 8	365	720	720	720
1610-01			6, 8	412	720	720	720
1615-01			12	408	408	720	720
1615-04			12,16	720	720	720	720
1615-07	X		3	408	408	720	720
1611-03			6,8,10	412	460	400	720
1614-02			8	300	720	720	720
1614-01			4,6	300	300	720	720
1602-01			8	408	720	720	720
			6, 8	412	720		720
	X		6	90	90		90
	X		6	365	365		365
	X		4	365	365		720
	X		6, 8	365	365		720
	X		4	110	110		275
	X		4, 8	120	120		720
	X		4	408	720		720
	X		3	290	290		960
	X		6, 10	175	188		400
	X		6, 8, 10	175	175		400
	X		4	412	720		720
	X		6, 10	100	100		100
	X		3	300	720		720
	X		2	300	500		720
	X		2	300	388		720
	X		3, 4, 6	320	320		400
	X		4	412	535		720
Area 6 (North Valley)							
1039-01		{Redacted}	3,4	400	720	720	720
1032-01			6	500	720	720	720
1041-01			2	911	911	911	911
1013-01			8	500	600	720	720
1021-01			4	500	720	720	720
1023-01?			4,6	500	600	720	720
1033-01			2	450	911	911	911
1019-01			4,6	720	720	720	720
			4,6	575	720	720	720
			2	911	911	960	911
1042-01			2	525	911	911	911
1004-01			6	490	490	720	720
1017-01			8	400	720	720	720
1001-02			2	911	911	911	911
1003-01			6	500	600	720	720

		MAOP OF DFMS OPERATING AT OR OVER 20% SMYS			Min. MAOP	Min. DP	Future
	Operating less than		Pipe Diameter	MOP	for Segment	for any Segment	Design Pressure
Route #	20%	Description	(inches)	(psig)	(psig)	(psig)	(psig)
1041-01			2	911	911	911	911
1007-01			6	500	600	1	720
Area 6 (Sacramento)							
0614-05		{Redacted}	12	180	500	500	600
0617-08			16	274	500	500	500
0617-03			16	274	275	275	500
0613-01	X		8,12	260	260	275	720
1802-01			8,10	412	412	500	720
			10,12,16	412	412	500	720
0610-01			16	412	412	500	720
0609-01			6	412	412	500	720
			6,10	412	412	500	720
0605-01			4	490	490	500	720
0607-02			2,4,6	425	425		720
0612-01			6,8	412	412	500	720
Area 6 (Sierra)							
1520-01		{Redacted}	6	500	500	500	600
1502-01			8	400	400	720	720
1511-01			4	600	600	720	720
1509-05			6	975	975	1000	1000
1510-01			6	975	975	1000	1000
1504-01/02	X		4,6	274	274	600	600
1509-04			3,6,8	485	720	720	720
1503-01			6,8	250	250	400	400
1518-01			4,8	500	500		720
1519-01			6,12	500	500		720
1521-01			6	600	720		720
1522-01			6,10	500	500		720
1523-01			8	500	720		720
DREG8724			12	500	720		720
1518-02/03			10,24	500	720		720
1501-01			3,4	245	245		720
DREG7496			6	600	720		720
GCUST5809			6	600	720		720
1508-01	X		4	395	395		600
Area 6 (Colusa)							
0630-01		{Redacted}	4,6	240	240	720	800
0637-01			4	800	800	800	800
0634-01 0634-02			2	600	600	1000	1000
0638-02			4	800	800	800	800

		MAOP OF DFMS OPERATING AT OR OVER 20% SMYS			Min. MAOP	Min. DP	Future
	Operating less than		Pipe Diameter	MOP	for Segment	for any Segment	Design Pressure
Route #	20%	Description	(inches)	(psig)	(psig)	(psig)	(psig)
0632-01	X		3	180	180	180	180
Area 6 (Vacaville)							
0601-01		{Redacted}	2,4,6	720	720	720	720
0602-01			6	650	650	720	720
0604-06			4	400	720	720	720
0600-02			4	720	720	800	800
0604-01			6	400	400	400	720
0604-16			10	675	675	675	675
0614-17			12	650	650	740	740
0603-01			6,10	650	650	720	720
0604-01			6	975	975	975	975
0604-01			8	400	400	720	720
0600-03			6	720	750	800	800
			3,4,6	400	400	400	400
0604-02			6	400	400	400	400
0604-02			4,6	400	400	720	720
			3,6	400	400	400	720
			6	400	400	400	720
0604-24			3	400	400	400	400
0604-07			6	400	400	400	400
Area 6 (Woodland)							
n/a		{Redacted}	8	800	800	800	800
0620-01			6	500	500	500	800
0624-01			4	500	500	500	800
0625-01			6	500	500	500	800
0622-01			4	500	500	500	500
Area 7 (North Bay)							
0407-01		{Redacted}	8	450	500	675	675
0405-01			10	450	500	675	675
0405-01			8,10	250	250	675	675
0406-03			4	450	500	675	675
0401-01 /0402-01			16,12,10,8	175	175		275
Area 7 (North Coast)							
1301-01		{Redacted}	8	150	150	675	675
1302-01			12	450	675		675
1306-01			6	450	500	675	675

		MAOP OF DFMS OPERATING AT OR OVER 20% SMYS			Min. MAOP	Min. DP	Future
	Operating less than		Pipe Diameter	MOP	for Segment	for any Segment	Design Pressure
Route #	20%	Description	(inches)	(psig)	(psig)	(psig)	(psig)
1303 to 1305			8,10,12	200	200		275

Notes:

A. There may be many DFMs listed that operate under 20% SMYS, but they are shown for the purpose of continuity. GT&D will be identifying which DFMs are operating under 20% SMYS.

Shaded area identifies change from previous revision.

MAOP OF PIPE TYPE HPUGH OPERATING AT OR OVER 20% SMYS

Description	Pipe Length (feet)	Pipe Diameter (inches)	MOP (psig)	MAOP (psig)	Design Pressure (psig)	Future Design Pressure (psig)
Santa Cruz	7,360	30	618	618	618	618
	4,950	34	618	618	618	618
Yuba City	12,334	34	525	525	550	550
Sacramento	79,520	34	500	500	500	500
	3,984	36	500	500	500	500
	10,956	42	500	500	500	500

Line Number	MP	to	MP	Description	MOP, MAOP, FDP	Pipe Diameter (inches)	MOP (psig)	Min. MAOP for Segment (psig)	Min. DP for any Segment (psig)	Future Design Pressure (psig)
				STANDARD PACIFIC GAS LINES INC.						
3	167.31		176.16	{Redacted}		20,24,26	600	600		600
3	176.16		191.15			24,26	400(1)	468		600
3	191.15		198.10			22,24,26	380	380	250	600
3	198.10		198.68			16	250(4)	420	150	600
4Y	0.85		7.33			4, 8, 10, 12	685 (2)	800	800	800
4Z	0.85		8.92			8, 10, 12, 16	510(3)	800	800	800
5	0.00		3.87			24	338	390		600
5	3.86		5.80			30	600	600	600	600
Ryer Island Branch	0.00		0.60			6	405	600	600	600

ed Notes:

(1) This section of SP-3 has a 405 psig MOP when operated as a standby backup to Line 105B at Franklin Canyon PLS.
(2) This section of SP-4 has a 685 psig MOP when operated in conjunction with Line 131Z. (East Rio Vista Field to Antioch Terminal.)
(3) This section of SP-4 has a 510 psig MOP when operated in conjunction with Line 114. (West Rio Vista Field to Antioch Terminal.)
(4) This section of SP-3 has a 405 MOP when connected directly to Line 105B at San Pablo Station.