PACIFIC GAS AND ELECTRIC COMPANY
San Bruno Gas Transmission Line Incident
Data Response

PG&E Data Request No.:	NTSB_050-005		
PG&E File Name:	San Bruno GT Line Incident_DR_NTSB_050-005		
Request Date:	February 10, 2011	Requesting Party:	NTSB
Date Sent:	March 25, 2011	Requestor:	Operations (Shori)

QUESTION 5

NTSB_033-007 specifically asked for copies of all documents/correspondence through which set-points on all regulating and over-pressure protection equipment controlling pressure on Transmission Lines 101, 109, and 132 (for the period 1990 to the date of the request) were modified. PG&E provided copies of the maintenance forms for these valves. It is requested that PG&E also provide copies of any clearances, work orders, etc. (other than routine maintenance) under which a gas control operator, or a technician at Milpitas, changed the set-points on the over-pressure protective devices.

ANSWER 5

In NTSB 033-007, PG&E provided all pressure set point changes on all three transmission lines since 2008, as well as the annual maintenance forms for the monitor regulating valves at Milpitas since 1999.

In NTSB 036-010, a follow-up data request to NTSB 033-007, PG&E provided annual maintenance forms for the primary regulating valves at Milpitas since 1999.

The only clearances PG&E has located regarding a pressure set point or over-pressure set point change at Milpitas station involve the L132 planned pressure increase operation on 12/9/2008 (see Clearance Application No. MIL-02-08 and Job Estimates – Order Number 40965687), which clearance was provided to the NTSB in response NTSB-036-003, and the 8/19/2010 clearance to perform the UPS upgrade, which was provided in response NTSB 0011-008.

In addition, PG&E has confirmed the pressures in L101, L109 and L132 were increased for several hours in a planned clearance on 12/11/2003 (see Clearance Application No. PenLinesMOP) and the pressure in L109 was increased for several hours in a planned clearance on 11/14/2008. A work order or clearance for the work could not be located. See NTSB-036-005 and NTSB 036-005-Amended for the recorded pressures.

PG&E work procedures only require clearances to be maintained on file for 3 months. Nevertheless, PG&E is continuing to search for additional clearance and work documents.

CLEARANCE NO. MIL-02-08 Rev. 1

PACIFIC GAS & ELECTRIC
APPLICATION FOR CLEARANCE

		SYSTEM	STATION
		Check one box **ONLY**.	
GAS CONTROL CENTER	Brentwood	X NEW	
DISTRICT/DIVISION	Milpitas/SJ/DA/PEN	STD	
JOB #	40965687	AUTHORIZATION	

(sequence of operations not needed)

CLEARANCE SUPERVISOR Mike Painter

PHONE 408-205-2203 (cell) PAGER same

REFERENCE DRAWINGS	
OPERATING MAPS WITH CHANGE NO.	OPERATING DIAGRAMS WITH CHANGE NO.
See list back page	**See list back page**

SCHEDULE OF WORK

START: Date: 12/8/08 Time 0700

COMPLETION: Date: 12/10/08 Time 1700

FACILITY INVOLVED: L132 MP 0 – MP 46.59

SERVICE INTERRUPTIONS:
(SEE PAGE 3, SPECIAL INSTRUCTIONS)

Yes: No: X

NO. OF CUSTOMERS: 0 total

EQUIPMENT OR LOCATION: Milpitas Terminal to Martin Station

Progress Report at Key Communication Steps(*) or not to exceed 2 hour(s)

DESCRIPTION: Operate Line 132 and associated taps and feeds to verify the 400 psig maximum operating pressure. Isolate L132 and 400 psi systems from adjacent 375 MOP systems. Operate for minimum 2 hours at 400 psi at SCADA control point: (13156, MMT_PT0083 (Milpts-Ter L132 Press) 44283).

Special Instructions: No Yes X (see page 3)

AUTHORIZATION OF CLEARANCE

	NAME	CONTACT NUMBER	DATE
PREPARED BY	Todd Arnett	408-483-4203	12/3/08
DISTRICT/DIVISION REVIEW	Painter/Fitzgerald/Kelly/McCorkle		
SUPERVISOR APPROVAL FOR STANDARD	Painter		
AUTHORIZED BY GAS CONTROL	Robert Quijalvo	223-3568	12/4/08

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. MIL-02-08 Rev. 1

NOTIFICATIONS REQUIRED (CHECK THOSE DONE BY GAS CONTROL)						
AGENCY	CONTACT NUMBER	✓	PERSON NOTIFIED	TIME NOTIFIED	NOTIFIED BY WHOM	COMMENTS
GAS CONTROL CENTER	925-513-4859					
FLYERS REQ'D.						
CALL CENTERS	916-923-7278					
AERIAL PATROL	1-707-446-9540					
AIRPORT						
LAW ENFORCEMENT						
FIRE DEPARTMENT						
AIR QUALITY BOARD						
PUBLIC RELATIONS						
GAS DISPATCH						
MEDIA DEPARTMENT						

DISTRIBUTION (BY ORIGINATOR) CHECKED ITEMS MANDATORY		✓
FIELD GAS CONTROL	BOPS1	✓
SYSTEM GAS CONTROL	SFCLEARANCE	✓
OPERATIONS SUPERVISOR	BSS2	✓
SYSTEM TRANSMISSION SUPERVISOR	KAS5	✓
GAS MAINTENANCE SUPERVISOR.	PAINTER	X
CLEARANCE SUPERVISOR	PAINTER	X
AREA SUPERINTENDENT	CARROLL	X
SR. GAS TRANSMISSION ENGINEER	ARNETT	X
GT&D ENGINEER		
ENVIRONMENTAL ENGINEER		
DIVISION T&R	FITZGERALD, KELLY, MCCORKLE	X
DIVISION ENGINEERING		
TRANSMISSION SYSTEM PLANNING	REIDER	X

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. MIL-02-08 Rev. 1

SPECIAL INSTRUCTIONS

			Isolate L132 and adjacent 400 psi systems from adjacent 375 MOP systems. Operate
			for minimum 2 hours at 400 psi at SCADA control point:
			(13156, MMT_PT0083 (Milpts-Ter L132 Press) 44283).
			Will not impact flow except by closing crossties from L132 to L101 and 109.
			Since energy not being isolated for personnel, valve position checks will be performed
			only where necessary to ensure MAOP separation.
			L132 to be fed from 300A. 300A must remain greater than 450 psi to ensure supply and
			allow control through V-62 and V-63 @ Milpitas.

WILL NORMAL FUNCTION OF THIS FACILITY BE MAINTAINED? YES [ ] NO [X]

IF NOT, EXPLAIN ACTION TO BE TAKEN: Cross ties will be closed to ensure MAOP separation. Milpitas internal bypass will be used for pressure control.

DO THE GAS CONTROL CENTERS NEED TO CHANGE SCADA ALARMS? YES [X] NO [ ]

SCADA POINT NAME	SCADA POINT DESCRIPTION	NORMAL HI-HI SETTING	CLEARANCE HI-HI SETTING	NORMAL LO-LO SETTING	CLEARANCE LO-LO SETTING
13288 MMT-PT0062	MIL TERM STA BYPASS PRESS	378	403	257	NA
13156 MMT-PT00083	MILTERM L-132 PRESS	378	403	257	NA
12048 NHF-PT0001	HLF-MN-BY L-132	378	403	147	NA
12009 NMA-PT0030	MARTIN STA L132 U/S PRESS	378	403	147	NA
JSI-PT0001	SR-VST-X L132 PRESS	378	403	257	NA

* NOTE: FOR WELDING ON PRESSURIZED PIPELINES GAGE DESIGNATION, PRESSURE LIMITS, FREQUENCY OF OBSERVATION, AND A DESIGNATED FIELD EMPLOYEE OR CREW TO OBSERVE ARE REQUIRED.

GAGE DESIGNATION (Provided by C.S.)	LIMITS		FREQUENCY OF OBSERVATIONS (Determined by C.S./GSO)	OBSERVED BY (Assigned by C.S./Job Supvervisor)
	LOW	HIGH		
300A upstream Milpitas Terminal (SCADA)	450	558	continuous	Gas Operations
109 (SCADA)	225	375	continuous	Gas operations

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. MIL 02-08 Rev. 0

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
⇒					REQUEST PRELIMINARY CLEARANCE (PER CLEARANCE PROCEDURE MANUAL)		
1)					REQUEST FINAL CLEARANCE (DAY OF JOB)		
2)	San Jose				Notify large floating customers of 400 psi inlet (Agnews Cogen, SVP Pico PP,		
3)	De Anza				Notify large floating customers of 400 psi inlet		
4)	Peninsula				Notify large floating customers of 400 psi inlet		
5)					**Start San Jose Division**		
6)	109 T3.30 Lafayette St.	Chk close	1	MOL	Check closed (MAOP separation)		
7)					**Need to identify any crosstied HPRs**		
8)					**Start De Anza Division**		
9)					**Need to identify any crosstied HPRs**		
10)	132 T4.91 Lawrence	Chk close	B	MOL	Check closed (MAOP separation)		
11)	132 T8.23 Ellis St.	Chk open	49-F8A	MOL	Check open (Dreg 4735 must see 400 psi)		
12)	Whisman & Middlefield	Chk close	9	MOL	Check closed the (unlabeled on OP diagram) bypass valve 9 (MAOP separation)		
13)	Moffett Blvd	Chk closed	1	MOL	Check closed (MAOP separation). Downstream of T9.22		
14)	Moffett Blvd	Chk open	49-F5A	MOL	Check open (Dcust 1423 must see 400 psi). Downstream of T9.22		
15)	T 9.62 Shoreline	Chk close	49-E4C	MOL	Check closed (MAOP separation). Downstream of T9.62		
16)	Burgoyne & Middlefield	Open	49-E4A	MOL	Open (Dreg 4736 and DFDS3588 must see 400 psi). Downstream of T10.15		
17)	Burgoyne & Middlefield	Close	49-E4B	MOL	Close for MAOP separation		
18)	Sierra Vista Xover	Chk Open	1	MOL	Verify feed off L109		
19)	Sierra Vista Xover	Chk Open	7	MOL	Verify feed off L109		
20)	Sierra Vista Xover	Close	3	MOL	Isolate 132 from 109 and 132A		
21)	Sierra Vista Xover	Close	4	MOL	Isolate 132 from 109 and 132A		
22)	Sierra Vista Xover	Close	8	MOL	Isolate 132 from 109 and 132A		
23)	Sierra Vista Xover	Chk Close	11	MOL	Isolate 132 from 109 and 132A		
24)	132 T10.56 Victory Ave tap	Chk Open	49-E2E	MOL	Check open L132 T10.56 bridle tap		

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CLEARANCE NO. MIL 02-08 Rev. 0

SEQUENCE OF OPERATIONS

25)	109 T10.98 Victory Ave tap	Chk close	49-E2F	MOL	Check closed L109 bridle tap		
26)	Palo Alto Mtr Stn #2	Chk Open	2	MOL	Check open 2		
27)	Palo Alto Mtr Stn #2	Chk Open	3	MOL	Check open 3		
28)	Palo Alto Mtr Stn #3	Chk Open	1	MOL	Check open 1		
29)	Palo Alto Mtr Stn #3	Close	2	MOL	Close 2		
30)					**Start Peninsula Division**		
31)					**Need to identify any crosstied HPRs**		
32)	109 T15.18 Stanford Ave	Chk Open	139	MOL	Check open 139		
33)	132 T16.37 Stanford Ave	Chk Close	265	MOL	Check closed 265		
34)	109 T16.48 Cardinal Cogen	Chk Open	338	MOL	Check closed 338		
35)	132 T17.53 Cardinal Cogen	Chk Close	337	MOL	Check closed 337		
36)	109 T16.52 Campus Dr	Chk Open	113	MOL	Check open 113		
37)	132 T17.59 Campus Dr	Chk Close	247	MOL	Check closed 247		
38)	132 T18.16 Santa Cruz Ave	Chk Open	244	MOL	Check open 244		
39)	132 T18.16 Santa Cruz Ave	Chk Open	245	MOL	Check open 245		
40)	109 T17.09 Santa Cruz Ave	Chk Close	112	MOL	Check closed 112		
41)	132 T18.18 Santa Cruz Ave	Chk Open	464	MOL	Check open 464		
42)	109 T17.10 Santa Cruz Ave	Chk Close	465	MOL	Check closed 465		
43)	132 T18.58	Chk Open	157	MOL	Check open 157		
44)	109 T17.51	Chk Close	111	MOL	Check closed 111		
45)	132 T19.13	Chk Open	490	MOL	Check open 490		
46)	109 T18.13	Close	491	MOL	Close 491		
47)	132 T19.17	Chk Open	2	MOL	Check open 2		
48)	109 T18.17	Close	1	MOL	Close 1		
49)	132 T19.22	Chk open	302	MOL	Check open 302		
50)	109 T18.22	Close	303	MOL	Close 303		
51)	109 T18.56	Chk Open	108	MOL	Check open 108		
52)	132 T19.70	Chk Close	109	MOL	check close 109		

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SEQUENCE OF OPERATIONS

53)	132 T20.06 Walsh Rd Reg Stn	Chk Open	240	MOL	Check Open 240		
54)	109 T19.05 Walsh Rd Reg Stn	Close	241	MOL	Close 241		
55)	132 T 21.39 Woodside Rd Reg Stn	Chk Open	236	MOL	check open 236		
56)	109 T20.43 Woodside Rd Reg Stn	Chk close	235	MOL	check close 235		
57)	109 T20.46 Woodside & L109	Chk Open	346	MOL	check open 346		
58)	132 T21.43 Woodside & L109	Chk close	347	MOL	check close 347		
59)	132 T21.76	Chk Open	230	MOL	check open 230		
60)	109 T20.78	Chk close	102	MOL	check close 102		
61)	132 T22.90	Chk Open	229	MOL	check open 229		
62)	109 T21.88	Chk close	101	MOL	check close 101		
63)	132 T23.11	Chk Open	2	MOL	check open 2		
64)	109 T22.08	Close	1	MOL	Close 1		
65)	Edgewood Rd Crossover	Chk open	279	MOL	check open 279		
66)	Edgewood Rd Crossover	Close	278	MOL	Close 278		
67)	Edgewood Rd Crossover	Close	A	MOL	Close A		
68)	Edgewood Rd Crossover	Close	300	MOL	Close 300		
69)	Edgewood Rd Crossover	Close	C	MOL	Close C		
70)	Ralston Ave Reg Stn	Chk open	280	MOL	check open 280		
71)	Ralston Ave Reg Stn	Chk close	281	MOL	check close 281		
72)	Ralston Ave Reg Stn	Chk close	283	MOL	check close 283		
73)	Ralston Ave Reg Stn	Chk close	284	MOL	check close 284		
74)	Ralston Ave Reg Stn	Chk close	A	MOL	check close A		
75)	Ralston Ave Reg Stn	Chk close	C	MOL	check close C		
76)	L132 SMCY Center	Chk open	2	MOL	Check open 2. DCUST1429? Tower Rd?		
77)	L109 SMCY Center	Close	1	MOL	Close 1. DCUST1429? Tower Rd?		
78)	L109 Hillcrest Juvenile Hall	Chk open	Bridle valve	MOL	Check open Bridle valve off L109. 26 Tower Rd?		
79)	L132 Hillcrest Juvenile Hall	Close	Bridle valve	MOL	Close Bridle valve off L132. 26 Tower Rd?		

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CLEARANCE NO. MIL 02-08 Rev. 0

SEQUENCE OF OPERATIONS

80)	132 T29.68 Half Moon Bay Tap	Chk Open	2	MOL	check open 2		
81)	Half Moon Bay Tap	Chk Open	174	MOL	check open 174		
82)	109 T28.55 Half Moon Bay Tap	Close	1	MOL	Close 1		
83)	109 T29.51 Bunker Hill Rd	Chk Open	29.51	MOL	check open 29.51		
84)	132 T30.55 Bunker Hill Rd	Close	30.55	MOL	Close 30.55		
85)	132 XO31.92	Chk close	3	MOL	Crystal Springs Crossover, Check close 3		
86)	132 XO31.95	Chk close	4	MOL	Crystal Springs Crossover, Check close 4		
87)	109 T31.13	Chk open	36	MOL	Denise Dr, Check open 36		
88)	132 T32.32	Close	177	MOL	Denise Dr, Close 177		
89)	132 T34.43	Chk open	474	MOL	Summit Dr., Check open 474		
90)	109 T33.25	Chk close	473	MOL	Summit Dr., Check close 473		
91)	132 T36.64	Chk open	1203	MOL	Hillcrest Blvd., Check open 1203		
92)	109 T35.43	Chk close	1206	MOL	Hillcrest Blvd., Check close 1206		
93)	109 T36.03	Chk Open	1308	MOL	Larkspur Dr., Check open 1308		
94)	132 T37.23	Chk close	1307	MOL	Larkspur Dr., Check close 1307		
95)	Healy Station	Close	3	MOL	Close 3		
96)	Healy Station	Close	4	MOL	Close 4		
97)	Healy Station	Chk open	1	MOL	Check open 1		
98)	Martin Station	-	2, 14	-	No valving required. End of clearance boundary.		
99)					**End Day 1. Start Day 2.** **Start Milpitas District Steps**		
100)	Milpitas Term	close	65	MOL	Close 65		
101)	Milpitas Term	Chk open	51	MOL	Check open 51		
102)	Milpitas Term	close	46	MOL	Close 46		
103)	Milpitas Term	close	47	MOL	Close 47		
104)	Milpitas Term	Chk close	52	MOL	Check close 52		
105)	Milpitas Term	Chk open	72	MOL	Check open 72. L132 to be fed from 300A		
106)	Milpitas Term	Chk open	94	MOL	Check open 94. L132 to be fed from 300A		
107)	Milpitas Term	Chk close	N	MOL	Check close N		
108)	Milpitas Term	Chk close	500	MOL	Check close 500		
109)	Milpitas Term	Chk close	A	MOL	Check close A		

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110)	Milpitas Term	Chk close	B	MOL	Check close B		
111)	Milpitas Term	Chk close	73	MOL			
112)	Milpitas Term	Chk close	69	MOL			
113)	Milpitas Term	Chk close	68	MOL			
114)	Milpitas Term	Chk close	Q	MOL			
115)	Milpitas Terminal	Close	49	MOL	Close & disable 49. End of clearance boundary.		
116)	Milpitas Terminal	Adjust setpoint	63	Caution	Adjust monitor setpoint to 420 psi.		
117)	Milpitas Terminal	Adjust setpoint	62	Caution	**Gas Operations** - Adjust setpoint to 400 psi outlet as measured at SCADA point MMT_PT0083		
118)					Hold 400 psi for 2 hours.		
119)	Milpitas Terminal	Adjust setpoint	62	Remove Caution	Return to normal operation, verify setpoint.		
120)	Milpitas Terminal	Adjust setpoint	63	Remove Caution	Return to normal operation. verify setpoint.		
121)					**Verify L132 at or below 375 psig before proceeding to next step.**		
122)	Milpitas Terminal	Adjust setpoint	49	Remove MOL	Return to normal operation. verify setpoint.		
123)	Milpitas Term	Open	65	Remove MOL			
124)	Milpitas Term	Chk open	51	Remove MOL			
125)	Milpitas Term	Open	46	Remove MOL			
126)	Milpitas Term	Open	47	Remove MOL			
127)	Milpitas Term	Chk close	52	Remove MOL			
128)	Milpitas Term	Chk open	72	Remove MOL			
129)	Milpitas Term	Chk open	94	Remove MOL			
130)	Milpitas Term	Chk close	N	Remove MOL			
131)	Milpitas Term	Chk close	500	Remove MOL			
132)	Milpitas Term	Chk close	A	Remove MOL			
133)	Milpitas Term	Chk close	B	Remove MOL	End Milpitas District steps.		
134)	Milpitas Term	Chk close	73	Remove MOL			
135)	Milpitas Term	Chk close	69	Remove MOL			
136)	Milpitas Term	Chk close	68	Remove MOL			
137)	Milpitas Term	Chk close	Q	Remove MOL			
138)					**End Day 2. Start Day 3.** **Start San Jose Division**		

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CLEARANCE NO. MIL 02-08 Rev. 0

SEQUENCE OF OPERATIONS

139)	109 T3.30 Lafayette St.	Chk close	1	Remove MOL			
140)					**Start De Anza Division**		
141)	132 T4.91 Lawrence	Chk close	B	Remove MOL			
142)	132 T8.23 Ellis St.	Chk open	49-F8A	Remove MOL			
143)	Whisman & Middlefield	Chk close	9	Remove MOL			
144)	Moffett Blvd	Chk closed	1	Remove MOL	Downstream of L132 T9.22		
145)	Moffett Blvd	Chk open	49-F5A	Remove MOL	Downstream of L132 T9.22		
146)	132 T 9.62 Shoreline	Chk close	49-E4C	Remove MOL	Downstream of T9.62		
147)	Burgoyne & Middlefield	Open	49-E4B	Remove MOL	Open 49-E4B		
148)	Burgoyne & Middlefield	Close	49-E4A	Remove MOL	Close 49-E4A		
149)	Sierra Vista Xover	Chk Open	1	Remove MOL			
150)	Sierra Vista Xover	Chk Open	7	Remove MOL			
151)	Sierra Vista Xover	Open	3	Remove MOL			
152)	Sierra Vista Xover	Open	4	Remove MOL			
153)	Sierra Vista Xover	Open	8	Remove MOL			
154)	Sierra Vista Xover	Chk Close	11	Remove MOL			
155)	132 T10.56 Victory Ave tap	Chk Open	49-E2E	Remove MOL			
156)	109 T10.98 Victory Ave tap	Chk close	49-E2F	Remove MOL			
157)	Palo Alto Mtr Stn #2	Chk Open	2	Remove MOL			
158)	Palo Alto Mtr Stn #2	Chk Open	3	Remove MOL			
159)	Palo Alto Mtr Stn #3	Chk Open	1	Remove MOL			
160)	Palo Alto Mtr Stn #3	Open	2	Remove MOL			
161)					**Start Peninsula Division**		
162)	109 T15.18 Stanford Ave	Chk Open	139	Remove MOL			
163)	132 T16.37 Stanford Ave	Chk Close	265	Remove MOL			
164)	109 T16.48 Cardinal Cogen	Chk Open	338	Remove MOL			
165)	132 T17.53 Cardinal Cogen	Chk Close	337	Remove MOL			
166)	109 T16.52 Campus Dr	Chk Open	113	Remove MOL			
167)	132 T17.59 Campus Dr	Chk Close	247	Remove MOL			

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SEQUENCE OF OPERATIONS

168)	132 T18.16 Santa Cruz Ave	Chk Open	244	Remove MOL			
169)	132 T18.16 Santa Cruz Ave	Chk Open	245	Remove MOL			
170)	109 T17.09 Santa Cruz Ave	Chk Close	112	Remove MOL			
171)	132 T18.18 Santa Cruz Ave	Chk Open	464	Remove MOL			
172)	109 T17.10 Santa Cruz Ave	Chk Close	465	Remove MOL			
173)	132 T18.58	Chk Open	157	Remove MOL			
174)	109 T17.51	Chk Close	111	Remove MOL			
175)	132 T19.13	Chk Open	490	Remove MOL			
176)	109 T18.13	Open	491	Remove MOL	Open 491		
177)	132 T19.17	Chk Open	2	Remove MOL			
178)	109 T18.17	Open	1	Remove MOL	Open 1		
179)	132 T19.22	Chk open	302	Remove MOL			
180)	109 T18.22	Open	303	Remove MOL	Open 303		
181)	109 T18.56	Chk Open	108	Remove MOL			
182)	132 T19.70	Chk Close	109	Remove MOL			
183)	132 T20.06 Walsh Rd Reg Stn	Chk Open	240	Remove MOL			
184)	109 T19.05 Walsh Rd Reg Stn	Open	241	Remove MOL	Open 241		
185)	132 T 21.39 Woodside Rd Reg Stn	Chk Open	236	Remove MOL			
186)	109 T20.43 Woodside Rd Reg Stn	Chk close	235	Remove MOL			
187)	109 T20.46 Woodside & L109	Chk Open	346	Remove MOL			
188)	132 T21.43 Woodside & L109	Chk close	347	Remove MOL			
189)	132 T21.76	Chk Open	230	Remove MOL			
190)	109 T20.78	Chk close	102	Remove MOL			
191)	132 T22.90	Chk Open	229	Remove MOL			
192)	109 T21.88	Chk close	101	Remove MOL			
193)	132 T23.11	Chk Open	2	Remove MOL			

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SEQUENCE OF OPERATIONS

194)	109 T22.08	Open	1	Remove MOL	Open 1		
195)	Edgewood Rd Crossover	Chk open	279	Remove MOL			
196)	Edgewood Rd Crossover	Open	278	Remove MOL	Open 278		
197)	Edgewood Rd Crossover	Open	A	Remove MOL	Open A		
198)	Edgewood Rd Crossover	Open	300	Remove MOL	Open 300		
199)	Edgewood Rd Crossover	Open	C	Remove MOL	Open C		
200)	Ralston Ave Reg Stn	Chk open	280	Remove MOL			
201)	Ralston Ave Reg Stn	Chk close	281	Remove MOL			
202)	Ralston Ave Reg Stn	Chk close	283	Remove MOL			
203)	Ralston Ave Reg Stn	Chk close	284	Remove MOL			
204)	Ralston Ave Reg Stn	Chk close	A	Remove MOL			
205)	Ralston Ave Reg Stn	Chk close	C	Remove MOL			
206)	Smcy Center	Chk open	2	Remove MOL	DCUST1429? Tower Rd?		
207)	Smcy Center	Open	1	Remove MOL	DCUST1429? Tower Rd? Open 1		
208)	Hillcrest Juvenile Hall	Chk open	Bridle valve	Remove MOL	Bridle valve off L109. 26 Tower Rd?		
209)	Hillcrest Juvenile Hall	Open	Bridle valve	Remove MOL	Bridle valve off L132. 26 Tower Rd? Open 1		
210)	Half Moon Bay Tap	Chk Open	2	Remove MOL			
211)	Half Moon Bay Tap	Chk Open	174	Remove MOL			
212)	Half Moon Bay Tap	Open	1	Remove MOL	Open 1		
213)	L109 T29.51 Bunker Hill Rd	Chk Open	29.51	Remove MOL			
214)	L132 T30.55 Bunker Hill Rd	Open	30.55	Remove MOL	Open 30.55		
215)	L132 XO31.92	Chk close	3	Remove MOL	Crystal Springs Crossover		
216)	L132 XO31.95	Chk close	4	Remove MOL	Crystal Springs Crossover		
217)	L109 T31.13	Chk open	36	Remove MOL	Denise Dr		
218)	L132 T32.32	Open	177	Remove MOL	Denise Dr. Opoen 177		
219)	132 T34.43	Chk open	474	Remove MOL	Summit Dr.		
220)	109 T33.25	Chk close	473	Remove MOL	Summit Dr.		
221)	132 T36.64	Chk open	1203	Remove MOL	Hillcrest Blvd.		
222)	109 T35.43	Chk close	1206	Remove MOL	Hillcrest Blvd.		
223)	109 T36.03	Chk Open	1308	Remove MOL	Larkspur Dr.		
224)	132 T37.23	Chk close	1307	Remove MOL	Larkspur Dr.		

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. MIL 02-08 Rev. 0

SEQUENCE OF OPERATIONS

225)	Healy Station	Open	3	Remove MOL	Open 3		
226)	Healy Station	Open	4	Remove MOL	Open 4		
227)	Healy Station	Chk open	1	Remove MOL			
228)					End of clearance, system returned to normal operations and normal configuration.		

⇒					REMOVE MCB MOL		
⇒					CHECK EQUIPMENT OPERATIONAL		
⇒					EQUIPMENT RELEASED TO OPERATIONS		
⇒					REDLINED CHANGES OF OM&D'S SENT BY FAX OR MAIL TO GAS CONTROL AND GSM MAPPING DEPT.		

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. MIL 02-08 Rev. 0

SEQUENCE OF OPERATIONS

Operating Maps:	**Operating Diagrams:**	**Division**	**Station name**
384522 sht 1 ch 51	383510 rev 51	Milpitas	Milpitas Terminal
384522 sht 2 ch 60	0800491 rev 2	SJ	N First St & Tasman Dr Reg Stn
384522 sht 3 ch 51	0800443 rev 2	SJ	Lafayette & Hogan Reg Stn
384522 sht 1 ch 51	0800444 rev 1	DA	Lawrence & Lakehaven Reg Stn
3803253 sht 1 ch 2	0800445 rev 1	DA	Whisman & Middlefield Rd Reg Stn
384523 sht1 ch 51	081659 rev 18	DA	Siera Vista Ave Crossover
	082457 rev 13	DA	Palo Alto Meter Stn No 2
	082458 rev 10	DA	Palo Alto Meter Stn No 3
	0800145 rev 2	Pen	Campus Dr and Junipero Serra Reg Stn
	0800146 rev 1	Pen	Alpine Rd and Piers Ln Reg Stn
	0800144 rev 3	Pen	Walsh Rd Reg Stn
	0800143 rev 1	Pen	Woodside Rd Reg Stn
	0800488 rev 2	Pen	Woodside and L109 reg stn
	082535 rev 2	Pen	Edgwood Rd Crossover
	082534 rev 10	Pen	Ralston Ave Reg Stn
	082482 rev 8	Pen	Half Moon Bay Tap
	087221 rev 1	Pen	Healy Stn
	081628 rev 21	Pen	Martin Stn

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO PenLinesMOP Rev. 1

PACIFIC GAS & ELECTRIC
APPLICATION FOR CLEARANCE

		SYSTEM		STATION
GAS CONTROL CENTER	SAN JOSE		NEW	
DISTRICT	Milpitas/San Jose/DeAnza/Peninsula/SF		STD	
JOB # / GM #		X	AUTHORIZATION	

CLEARANCE SUPERVISOR Gary Sorensen

PHONE 8-621-7225 PAGER 408-993-6957
CELL 408-761-2403

SCHEDULE OF WORK

START: 12-11-03 Time 0800

COMPLETION: Date: 12-11-03 1700

OPERATING MAPS WITH CHANGE NO.

384522 1-3 43	384523 1-2 49
384522 2-3 52	384523 2-2 27
384522 3-3 45	

REFERENCE DRAWINGS

OPERATING DIAGRAMS WITH CHANGE NO.	OPERATING DIAGRAMS WITH CHANGE NO.
	082456 Zanker 10
	082455 Rengstorff 14
	081659 SierraVista 16
383510 Milpitas 49	082458 PAMS3 10
481607 SF GLC 29	0800144 Walsh 1
081519 Lomita 33	0800143 Woodside 1
081628 Martin 21	082535 Edgewood 6
082432 Sullivan 19	082534 Ralston 8
087221 Healy 1	082482 HMB 8

FACILITY INVOLVED: Transmission Lines Supplied by the Milpitas Mixer

LOCATION: Between Milpitas and the SF Gas Load Center

SERVICE INTERRUPTIONS:
(SEE PAGE 3, SPECIAL INSTRUCTIONS)
Yes: No:

NO. OF CUSTOMERS: Total

Progress Report at Key Communication Steps (*) or not to exceed Hour(s)

DESCRIPTION: Close or check closed crossties between L-101, L109, and L-132 and operate all three lines at their MAOPs as listed in the pipeline data sheet, Drawing 086868 rev 15. (L-101 @ 400 psig up to Lomita and L-132 @ 390 psig up to Martin. L-109 @ 150 psig downstream of Sullivan and L-101 @ 275 psig downstream of Lomita)

Special Instructions: No Yes X

AUTHORIZATION OF CLEARANCE

	NAME	CONTACT NUMBER	DATE
PREPARED BY	Gary Sorensen	408-282-7225	12-8-03
AUTHORIZED BY GAS CONTROL			

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO PenLinesMOP Rev. 1

NOTIFICATIONS REQUIRED (CHECK THOSE DONE BY GAS CONTROL)						
AGENCY	CONTACT NUMBER	✓	PERSON NOTIFIED	TIME NOTIFIED	NOTIFIED BY WHOM	COMMENTS
GAS CONTROL CENTER						
FLYERS REQ'D.						
CALL CENTERS						
AERIAL PATROL						
AIRPORT						
LAW ENFORCEMENT						
FIRE DEPARTMENT						
AIR QUALITY BOARD						
PUBLIC RELATIONS						

DISTRIBUTION (BY ORIGINATOR) CHECKED ITEMS MANDATORY		X
FIELD GAS CONTROL	SJCLEAR,	X
SYSTEM GAS CONTROL	SFCLEARANCE	X
OPERATIONS SUPERVISOR	GES6	X
SYSTEM TRANSMISSION SUPERVISOR	GLC5	X
GAS SUPPLY DISTRICT FOREMAN	DMP5	X
CLEARANCE SUPERVISOR	GES6	X
AREA SUPERINTENDENT	DLP6	X
SR. GAS TRANSMISSION ENGINEER	WJH7, TLA3	X
GSM ENGINEER		
ENVIRONMENTAL ENGINEER		
DIVISION T&R	LWW3, MJHH, DKM3, CXMM	X
DIVISION ENGINEERING		
TRANSMISSION SYSTEM PLANNING	JJMD	X

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO PenLinesMOP Rev. 1

SPECIAL INSTRUCTIONS

			Position of normally closed crossties may be confirmed prior to the day of the clearance
			Confirm position of crossties to SJGas Control Center, Gary Sorensen, on morning of
			12/11/03
`			

WILL NORMAL FUNCTION OF THIS FACILITY BE MAINTAINED? YES [X] NO [ ]

IF NOT, EXPLAIN ACTION TO BE TAKEN:

GAGE DESIGNATION	LIMITS		FREQUENCY OF OBSERVATIONS	OBSERVED BY
	LOW	HIGH		

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
⇒					REQUEST PRELIMINARY CLEARANCE (PER CLEARANCE PROCEDURE MANUAL)		
1)					REQUEST FINAL CLEARANCE (DAY OF JOB)		
2)	SJ Div L-101 T-062	N/a	51-D7A		~~NURSERIES~~ removed per Lloyd Walker		
3)	SJ Div L-109	N/a	51-D7B		~~NURSERIES~~ removed per Lloyd Walker		
4)	SJ Div L-101 T-1.15	Check Open	3		ZANKER		
5)	SJ Div L-109 T-1.07	Close or Check Closed	1		ZANKER		
6)	SJ Div L-132 T-3.05	Check Open	1		LAFAYETTE		
7)	SJ Div L-132 T-3.05	Check Open	51-F3F		LAFAYETTE		
8)	SJ Div L-132 T-3.05	Check Open	51-F3A		LAFAYETTE		
9)	SJ Div L-109 T-3.30	Close or Check Closed	1		LAFAYETTE		
10)	DeAnza L-109 T-8.53	Check Open	49-E6A		MOFFETT		
11)	DeAnza L-109 T-8.53	Close or Check Closed	1		MOFFETT		
12)	DeAnza L-109 T-9.29	Check Open	49-E4D		N SHORELINE aka STIERLIN RD		
13)	DeAnza L-132 T-9.62	Close or Check Closed	49-E4C		N SHORELINE aka STIERLIN RD		
14)	DeAnza L-109 T-9.72	Check Open	49-E4B		BURGOYNE		
15)	DeAnza L-132 T-10.15	Close or Check Closed	49-E4A		BURGOYNE		
16)	DeAnza L-101 V-9.78 Rengstorff	Check Open	1		SIERRA VISTA		
17)	DeAnza L-101 V-9.78 Rengstorff	Check Open	2		SIERRA VISTA		

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
18)	DeAnza Sierra Vista Ave Crossover	Check Open	5		SIERRA VISTA		
19)	DeAnza Sierra Vista Ave Crossover	Check Open	7		SIERRA VISTA		
20)	DeAnza Sierra Vista Ave Crossover	Close	1		SIERRA VISTA		
21)	DeAnza Sierra Vista Ave Crossover	Close	2		SIERRA VISTA		
22)	DeAnza Sierra Vista Ave Crossover	Close	3		SIERRA VISTA		
23)	DeAnza Sierra Vista Ave Crossover	Close	4		SIERRA VISTA		
24)	DeAnza Sierra Vista Ave Crossover	Close	12		SIERRA VISTA		
25)	DeAnza Sierra Vista Ave Crossover	Close	8		SIERRA VISTA		
26)	DeAnza L-132 T-10.56	Check Open	49-E2E		VICTORY AVE		
27)	DeAnza L-109 T-10.98	Close or Check Closed	49-E2F		VICTORY AVE		
28)	DeAnza L-132 Palo Alto Meter Sta 3	Check Open	1		PALO ALTO METER STA NO 3		
29)	DeAnza L-132 Palo Alto Meter Sta 3	Close or Check Closed	2		PALO ALTO METER STA NO 3		
30)	Peninsula L-109 T-15.18	Check Open	139		STANFORD AVE		
31)	Peninsula L-132 T-16.73	Close or Check Closed	265		STANFORD AVE		
32)	Peninsula L-109 T-16.48	Check Open	338		CARDINAL COGEN		
33)	Peninsula L-132 T-17.53	Close or Check Closed	337		CARDINAL COGEN		
34)	Peninsula Campus Dr and Junipero Serra Reg	Check Open	113		LOS ARBOLES		

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
35)	Peninsula Campus Dr and Junipero Serra Reg	Close or Check Closed	247		LOS ARBOLES		
36)	Peninsula L-132 T-18.16	Check Open	245		SANTA CRUZ AVE – ALPINE ROAD		
37)	Peninsula L-132 T-18.16	Check Open	244		SANTA CRUZ AVE – ALPINE ROAD		
38)	Peninsula L-109 T-17.09	Close or Check Closed	112		SANTA CRUZ AVE – ALPINE ROAD		
39)	Peninsula L-132 T-18.18	Check Open	464		ALPINE ROAD AKA LA QUESTA		
40)	Peninsula L-109 T-17.10	Close or Check Closed	465		ALPINE ROAD AKA LA QUESTA		
41)	Peninsula L-132 T-18.58	Check Open	157		BRANNER DR		
42)	Peninsula L-109 T-17.51	Close or Check Closed	111		BRANNER DR		
43)	Peninsula L-132 T-19.13	Check Open	490		C26		
44)	Peninsula L-109 T-18.13	Close	491		C26		
45)	Peninsula L-109 T-18.56	Check Open	108		WALLESAY DR		
46)	Peninsula L-132 T-19.70	Close or Check Closed	109		WALLESAY DR		
47)	Peninsula Walsh Road Reg Sta	Check Open	241		WALSH		
48)	Peninsula Walsh Road Reg Sta	Close	240		WALSH		
49)	Peninsula L-132 T-20.93	Check Open	233		TAP 19.98		
50)	Peninsula L-109 T-19.98	Close or Check Closed	105		TAP 19.98		
51)	Woodside Road Regulator Station	Check Open	236		WOODSIDE ROAD		
52)	Woodside Road Regulator Station	Close or Check Closed	235		WOODSIDE ROAD		
53)	Peninsula L-109 T-20.46	Check Open	346		N/O WOODSIDE		

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
54)	Peninsula L-132 T-21.43	Close or Check Closed	347		N/O WOODSIDE		
55)	Peninsula L-132 T-21.76	Check Open	230		WOODSIDE DRIVE		
56)	Peninsula L-109 T-20.78	Close or Check Closed	102		WOODSIDE DRIVE		
57)	Peninsula L-132 T-22.90	Check Open	229		FARM HILL BLVD		
58)	Peninsula L-109 T-21.88	Close or Check Closed	101		FARM HILL BLVD		
59)	Peninsula L-109 T-21.98	Check Open	1		MT ALVERNO		
60)	Peninsula L-132 Mt. Alverno Convent and College	Close	2		MT ALVERNO		
61)	Peninsula EdgewoodRd Crossover	Check Closed	A		EDGEWOOD ROAD CROSSOVER		
62)	Peninsula EdgewoodRd Crossover	Check Closed	B		EDGEWOOD ROAD CROSSOVER		
63)	Peninsula EdgewoodRd Crossover	Check Closed	C		EDGEWOOD ROAD CROSSOVER		
64)	Peninsula EdgewoodRd Crossover	Check Closed	D		EDGEWOOD ROAD CROSSOVER		
65)	Peninsula EdgewoodRd Crossover	Check Closed	E		EDGEWOOD ROAD CROSSOVER		
66)	Peninsula EdgewoodRd Crossover	Close	278		EDGEWOOD ROAD CROSSOVER		
67)	Peninsula EdgewoodRd Crossover	Close	279		EDGEWOOD ROAD CROSSOVER		
68)	Peninsula EdgewoodRd Crossover	Close	300		EDGEWOOD ROAD CROSSOVER		
69)	Peninsula Ralston Ave Reg Sta	Check Open	280		RALSTON AVE		
70)	Peninsula Ralston Ave Reg Sta	Check Closed	284		RALSTON AVE		
71)	Peninsula Ralston Ave Reg Sta	Check Closed	A		RALSTON AVE		

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
72)	Peninsula Ralston Ave Reg Sta	Check Closed	B		RALSTON AVE		
73)	Peninsula Ralston Ave Reg Sta	Check Closed	283		RALSTON AVE		
74)	Peninsula Ralston Ave Reg Sta	Check Closed	C		RALSTON AVE		
75)	Peninsula Ralston Ave Reg Sta	Check Closed	D		RALSTON AVE		
76)	Peninsula Ralston Ave Reg Sta	Check Closed	281		RALSTON AVE		
77)	Peninsula Half Moon Bay Tap	Check Open	2		HALF MOON BAY		
78)	Peninsula Half Moon Bay Tap	Check Open	174		HALF MOON BAY		
79)	Peninsula L-109 T-29.51	Check Open	29.51		BUNKER HILL		
80)	Peninsula L-132 T-30.55	Close	30.55		BUNKER HILL		
81)	Peninsula L-109 V-30.77 Crystal Springs Crossover	Check Closed	1		CRYSTAL SPRINGS		
82)	Peninsula L-109 V-30.77 Crystal Springs Crossover	Check Closed	2		CRYSTAL SPRINGS		
83)	Peninsula L-132 XO-31.92 Crystal Springs Crossover	Check Closed	3		CRYSTAL SPRINGS		
84)	Peninsula L-132 XO-31.95 Crystal Springs Crossover	Check Closed	4		CRYSTAL SPRINGS		
85)	Peninsula L-109 T-31.13	Check Open	36		DENISE		
86)	Peninsula L-132 T-32.32	Close	177		DENISE		
87)	Peninsula L-132 T-34.43	Check Open	474		SUMMIT		
88)	Peninsula L-109 T-33.25	Check Closed	473		SUMMIT		

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
89)	Peninsula L-132 T-36.64	Check Open	1203		HILLCREST		
90)	Peninsula L-109 T-35.43	Check Closed	1206		HILLCREST		
91)	Peninsula L-109 T-36.03	Check Open	1308		LARKSPUR		
92)	Peninsula L-132 T-37.23	Check Closed	1307		LARKSPUR		
93)	Peninsula Healy Station	Check Closed	3		HEALY		
94)	Peninsula Healy Station	Check Closed	4		HEALY		
95)	San Francisco L-132 T-48.06	Check Open	850		WOOLSEY ST (Hamilton/Woolsey)		
96)	San Francisco L-101 T-41.62	Close	224		WOOLSEY ST (Hamilton/Woolsey)		
97)	Peninsula Martin Station	Check Closed	18		Check isolation between L-132 and L-132B		
98)	Peninsula Martin Station	Check Closed	19		Check isolation between L-132 and L-132B		
99)	San Francisco Gas Load Center L-101	Check Open	44.55		Check open L-101 MLV which will be the only source of supply for the 60 psig maop SFGLC regs		
100)	San Francisco Gas Load Center L-109	Close	52.71		Close MLV to isolate L-109 from the SFGLC		
101)	San Francisco Gas Load Center L-132	Close	538		Close valve to isolate L-132 from L-101		
102)	San Francisco Gas Load Center L-132	Close	540		Close valve to isolate L-132 from L-101		
103)	Sullivan Station	Setpoint	2		Reset monitor setpoint to 155 psig		
104)	Lomita Park Station	Setpoint	33.68		Reset monitor setpoint to 285 psig		
105)	Milpitas Terminal	Close	46				
106)	Milpitas Terminal	Close	47				
107)	Milpitas Terminal	Close	65				

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
108)	Milpitas Terminal	Setpoint	63		Set valve 63 (Station bypass mon) to 400 psig		
109)	Milpitas Terminal	Close	31				
110)	Milpitas Terminal	Setpoint	62		Set valve 62 (Station bypass reg) to feed L-132 at 390 psig.	By San Jose Gas Control	
111)	Milpitas Terminal	Setpoint	38 40		Set valves 38 and 40 (L-109 regs downstream of the mixer) to feed L-109 at 325 psig.	By San Jose Gas Control	
112)	Milpitas Terminal	Setpoint	16		Set monitor valve 16 to 410 psig		
113)	Milpitas Terminal	Setpoint	20		Set monitor valve 20 to 410 psig		
114)	Milpitas Terminal	Setpoint	26		Set monitor valve 26 to 410 psig		
115)	Milpitas Terminal	Setpoint	mixer		Set to valves to control the Milpitas Mixer at 400 psig. Mixer will feed L-101 and L-100	By San Jose Gas Control	
116)	Peninsula L-101 MLV-32.17	Close or Check Closed	A				
117)	Peninsula L-101 MLV-32.17	Check Open	2				
118)	Peninsula L-101 MLV-32.17	Close	1				
119)	Peninsula L-101 MLV-32.17	Throttle	32.17		Throttle MLV-32.17 as necessary to maintain a downstream pressure of 396 psig		
120)	Sullivan Ave Reg Station	Setpoint	15/15R		Set valves to control a downstream pressure of 150 psig in L-109	By San Jose Gas Control	
121)	Lomita Park Reg Station	Setpoint	27		Set valve to control a downstream pressure of 275 psig in L-101	By San Jose Gas Control	
122)	Milpitas Terminal				**Maintain these pressures for 2 hours:** L-101 and L-100 400 psig L-132 390 psig L-109 325 psig	By San Jose Gas Control	
123)	Sullivan Ave Reg Station				**Maintain this pressure for 2 hours:** L-109 150 psig	By San Jose Gas Control	
124)	Lomita Park Reg Station				**Maintain this pressure for 2 hours:** L-101 275 psig	By San Jose Gas Control	
125)	Milpitas Terminal	Setpoint	mixer		Set valves to control the Milpitas Mixer at 350 psig.	By San Jose Gas Control	
126)	Milpitas Terminal	Setpoint	38 40		Set valves 38 and 40 (L-109 regs downstream of the mixer) to feed L-109 at 350 psig.	By San Jose Gas Control	

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
127)	Milpitas Terminal	Setpoint	62		Set valve 62 (Station bypass reg) to feed L-132 at 350 psig.	By San Jose Gas Control	
128)	Milpitas Terminal	Setpoint	63		Set monitor valve 63 to 385 psig (normal setting)		
129)	Milpitas Terminal	Setpoint	16		Set monitor valve 16 to 385 psig (normal setting)		
130)	Milpitas Terminal	Setpoint	20		Set monitor valve 20 to 385 psig (normal setting)		
131)	Milpitas Terminal	Setpoint	26		Set monitor valve 26 to 385 psig (normal setting)		
132)	Milpitas Terminal				Allow downstream pressures to stabilize at 350 psig		
133)	Milpitas Terminal	Open	46				
134)	Milpitas Terminal	Open	47				
135)	Milpitas Terminal	Open	65				
136)	Milpitas Terminal	Open	31				
137)	Milpitas Terminal	Setpoint	62		Set valve 62 (Station bypass reg) to 260 psig.	By San Jose Gas Control	
138)	Peninsula L-101 MLV-32.17	Open	1				
139)	Peninsula L-101 MLV-32.17	Open	32.17		When upstream pressure drops below 396 psig, Fully open MLV-32.17		
140)	Sullivan Ave Reg Station	Setpoint	15/15R		Set valves to control a normal downstream pressure of 137 psig in L-109	By San Jose Gas Control	
141)	Sullivan Ave Reg Station	Setpoint	2		Set monitor valve 2 to 155 psig (normal setting)		
142)	Lomita Park Reg Station	Setpoint	27		Set valves to control a normal downstream pressure of 137 psig in L-101	By San Jose Gas Control	
143)	Lomita Park Reg Station	Setpoint	33.68		Set monitor valve 33.68 to 155 psig (normal setting)		
144)	Sullivan Ave Reg Station				Allow pressures to stabilize at 137 psig	By San Jose Gas Control	
145)	Lomita Park Reg Station				Allow pressures to stabilize at 137 psig	By San Jose Gas Control	
146)	San Francisco Gas Load Center L-109	Open	52.71				

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
147)	San Francisco Gas Load Center L-132	Open	538				
148)	San Francisco Gas Load Center L-132	Open	540				
149)	DeAnza Sierra Vista Ave Crossover	Open	1		SIERRA VISTA		
150)	DeAnza Sierra Vista Ave Crossover	Open	2		SIERRA VISTA		
151)	DeAnza Sierra Vista Ave Crossover	Open	3		SIERRA VISTA		
152)	DeAnza Sierra Vista Ave Crossover	Open	4		SIERRA VISTA		
153)	DeAnza Sierra Vista Ave Crossover	Open	12		SIERRA VISTA		
154)	DeAnza Sierra Vista Ave Crossover	Open	8		SIERRA VISTA		
155)	Peninsula L-109 T-18.13	Open	490		C26		
156)	Peninsula Walsh Road Reg Sta	Open	240		WALSH		
157)	Peninsula L-132 Mt. Alverno Convent and College	Open	2		MT ALVERNO		
158)	Peninsula EdgewoodRd Crossover	Open	278		EDGEWOOD ROAD CROSSOVER		
159)	Peninsula EdgewoodRd Crossover	Open	279		EDGEWOOD ROAD CROSSOVER		
160)	Peninsula EdgewoodRd Crossover	Open	300		EDGEWOOD ROAD CROSSOVER		
161)	Peninsula L-132 T-30.55	Open	30.55		BUNKER HILL		
162)	Peninsula L-132 T-32.32	Open	177		DENISE		
163)	San Francisco L-101 T-41.62	Open	224		WOOLSEY ST (Hamilton/Woolsey)		

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

CLEARANCE NO. PenLinesMOP rev1

SEQUENCE OF OPERATIONS

OPRN NO	LOCATION	OPERATION	VALVE NO.	TAGGED	REMARKS	COMPLETED BY	TIME/DATE
⇒							
⇒							

* INDICATE KEY COMMUNICATION STEPS WITH AN ASTERISK FOR COMMUNICATION AND LOGGING BETWEEN CLEARANCE SUPERVISOR AND GAS CONTROL CENTER

Pacific Gas and Electric Company

Job Estimate - Face Sheet

CGT Form

Single Order Job

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Date:	12/4/2008	Responsible Cost Center:	10268
		Receiver Cost Center:	10200
Job Title:	**L132 MOP VERIFICATION**	Start Date:	11/6/2008
Location:	L132 Milpitas	Completion Date:	3/31/2009
City & County:	Milpitas / Santa Clara & San Mateo Counties	Sales # (D&C):	
Applicant: / WRO	PG&E	Planning Order Number:	5010514
Project Manager:	Todd Arnett (925) 974-9740	Operating Plan Amount:	$0
Estimator:	William Dekorte (925) 974-4207	FERC Regulatory Acct:	8630

Job Summary:

It is proposed: Clearance to isolate and increase L132 pressure to it's 400 PSIG MOP.

This project is not in the 2008 Operating Plan. It is funded for $47,000. It has not been approved by the IPP.

Recommendation: Company Expense

Asset #:

Removal Order #: **MWC Description:** BX-E:Maint Gas Transm System

Cost Summary: **Planning Order Description:** Pipeline Hydrotests, Uprates, CNG/LNG

Task #	Description	Mandays	Labor $	Material $	Contract $	Other $	Total Cost
1	L132 Clearance	28.00	26,948				$26,948
2	GT&D	18.00	15,852				$15,852

Expenditure by Year:

First Year	2008	# years	Year 2008	Year 2009	Year 2010	Year 2011	Year 2012+	Contingency	Total
Gross		1	$42,799					$2,672	$45,471
Net		1	$42,799					$2,672	$45,471

Cap Install'n		$0
Cap Removal		
Expense		$42,799
Mat'l Burden		$0
Cap A & G		$0
AFUDC	0%	$0
Escalation	0%	$0
Contingency		$2,672
Gross Amount Authorized		$45,471
Scrap/Re. Mat'l.		
Credits		
Net Amount Authorized		$45,471

Permit Status:

	Required	Secured
City / County:	☐	☐
Highway:	☐	☐
R/R X-ing:	☐	☐
Other Permits:	☐	☐

Other : STPR - NO

Job Construction Information:

Start Date: _____

Operative Date: _____

Completion Date: _____

Foreman's Signature:

Job Authorization	
Recommend **Vince Castro**	Recommend
Concur **Todd Arnett**	Concur
Authorize **Ed Stracke**	Date Authorized
PSRS ID 19916	
Order Number or Project Number **40965687**	**Rev** **0**

Job Scope:

Problem: L132 has 400 MOP. There are sections of L132 and numerous DFMs off 132 that have suspected manufacturing threats per the integrity management subpart of 49 CFR part 192 (subpart O). 192.917.e.3 limits pipes with manufacturing threats to operate at their maximum operating pressure achieved in the previous 5 years. If this pressure is not reached and recorded on the pipeline, then the system would not be able to operate up to 400 without significant additional integrity verification work.

Objective: Confirm L132 system 400 psi MOP

Pressure Verification must be completed by 12/11/08 to retain the 400psi MOP

Scope: Clearance to isolate and increase L132 and associated taps to 400 psi for minimum 2 hours.

Consequences: Not performing this pressure verification would lower the pipe s effective MOP to 375, reducing capacity. This is governed by 192.917.e.3.

Tasks (cont.):

Pacific Gas and Electric Company

CGT Form

Job Estimate - Detail Sheet: Plant to be Installed

Single Order Job

Order Number: 40965687

L132 MOP VERIFICATION

Task Num.	S I R	Description	PCC	Hourly Std. Rate	MD's	SUB-TOTAL AMOUNT (dollars only)				TOTAL ($ only)
						Internal Labor $	Material $	Contract $	Other $	
1	2	L132 Clearance								0
	2	Milpitas District	10260	126.49	4.00	4,048				4,048
	2	T&R San Jose	11885	119.27	2.00	1,908				1,908
	2	T&R DeAnza	12108	119.27	4.00	3,817				3,817
	2	T&R Peninsula	11783	119.27	18.00	17,175				17,175
		Subtotal			**28.00**	**26,948**				**26,948**
2	2	GT&D								0
	2	Engineering	10268	117.85	10.00	9,428				9,428
	2	Estimating	10267	97.87	5.00	3,915				3,915
	2	Mapping	10281	97.87	1.00	783				783
	2	ADE Review	10267	97.87	1.00	783				783
	2	Job Processing	10268	117.85	1.00	943				943
		Subtotal			**18.00**	**15,852**				**15,852**
		Grand Total			**46.00**	**42,799**				**42,799**

Pacific Gas and Electric Company

Indirects & Overheads

CGT Form
Single Order Job
Order Number: 40965687
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SUB-TOTAL AMOUNT (dollars only)						
TYPE OF COSTS		PG & E LABOR	Material	Contract Services	Other	TOTAL ($ only)
DIRECT COSTS		(a)	(b)	(c)	(d)	(e)
Capital Installation						
Removal						
Capital travel Labor						
Capital Escalation %	0	0	0	0	0	0
Capital Escalation # mos	0					
Total Capital Direct Costs		**0**	**0**	**0**	**0**	**0**
Maint and Oper. (M&O) incl Travel Labor		42,799				42,799
M&O Escalation %	0					
M&O Escalation # mos	0	0				0
Total M&O Costs		**42,799**	**0**	**0**	**0**	**42,799**
Total Authorized Direct Costs		**42,799**	**0**	**0**	**0**	**42,799**
OVERHEADS						
Material Burden %	0		0			0
Administrative and General (A&G) %	0					0
AFUDC %	0					0
Total Overheads						**0**
Overall Contingency with overheads		2,672	0	0	0	2,672
GROSS FINANCIAL COSTS						**45,471**