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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CLEARANCE NO. MIL 02-08 Rev. 0

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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CLEARANCE NO. MIL 02-08 Rev. 0

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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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CLEARANCE NO. MIL 02-08 Rev. 0

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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CLEARANCE NO. MIL 02-08 Rev. 0

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

Pacific Gas and Electric Company

Job Estimate - Face Sheet

CGT Form

Single Order Job

Page____ of____

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.):