

Docket No. SA-534

Exhibit No. 2-B

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

PG&E EVENT TIMELINE

(4 Pages)

SAN BRUNO GAS INCIDENT

Line No.	Time	Description	Data Source
9/9/2010			
1	3:05 pm	Gas Control Tech (Oscar Martinez) reports to Gas Control that the installation of new Uninterruptable Power Source (UPS) at Milpitas Terminal should not impact the Milpitas Station during the clearance.	2
2	4:20 pm-4:32 pm	Supervisor Control and Data Acquisition (SCADA) detects many Low and Low-Low Alarms at Milpitas.	1
3	4:32 pm	Alarms cleared at Milpitas Station and alarms returned to normal.	1
4	5:23 pm	SCADA shows many High-High pressure alarms in Milpitas and along L-101, L-109 and L-132.	1
5	5:24 pm	SCADA shows both sides of Sierra Vista Crosstie (L-109 to L-132) in Mountain View, CA exceeds 375 psig.	3
6	5:25 pm	Gas Control calls Milpitas Station to discuss High-High alarms. Milpitas Gas Control Tech confirms there will be action needed to address the High-High alarms.	5
7	5:45 pm	SCADA shows L-132 Martin Station upstream pressure exceeds 375 psig.	3
8	5:51 pm - 5:52 pm	Gas Control changes three regulation set points PLS-7A and PLS-7B (L-300), and Sheridan Road (L-131) to 370 psig.	1
9	5:58 pm - 6:07 pm	SCADA shows L-132 (~MP 39.28) reaches a high of ~386 psig	3
10	6:11 pm	Explosion	Media
11	6:12 pm	SCADA shows upstream pressure at Martin Station on L-132 decreased from 361.4 psig to 289.9 psig.	3
12	6:15 pm	SCADA Low-Low Alarm at Martin Station on L-132.	1
13	6:18 pm	Concord Dispatch notified by off duty PG&E employee (former Gas Service Representative [GSR]), Curtis Meredith of fire in San Bruno.	4
14	6:19 pm	Concord Dispatch calls GSR (Tom Dudley) working in Daly City to see if they can see a fire. GSR's answer is not at this time but will be keep eye out.	4
15	6:20 pm	Off duty Peninsula On-Call Supervisor (Scott Robinson) calls dispatch, bad connection.	4
16	6:21 pm	An off-duty GSR (Mike Mentzer) calls into Concord Dispatch alerting them that there is a fire in San Bruno that appears to be gas fed.	4

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Line No.	Time	Description	Data Source
17	6:23 pm	Off duty Peninsula On-Call Supervisor (Scott Robinson) calls back into dispatch, confirms flames and notifies dispatch that he is heading to site.	4
18	6:23 pm	Concord Dispatch calls GSR (Jareau Breiz) working in San Bruno area and instructs him to go to Sneath and Skyline in San Bruno to investigate the reported explosion.	4
19	6:24 pm	Concord Dispatch receives "Immediate Response" tag and call from PG&E Call Center regarding fire in San Bruno (generated by customer call to PG&E Call Center). This is the first customer call related to the rupture.	4
20	6:25 pm	Concord Dispatch calls Peninsula Division On-Call Supervisor (Chris Baur).	4
21	6:27 pm	Concord Dispatch calls Gas Control about explosion.	5, 4
22	6:30 pm	Concord Dispatch calls to check-in with GSR (Jareau Breiz), who has been dispatched to site. GSR advises that he can see flames but is in traffic.	4
23	6:31 pm	Gas Control returns call to Concord Dispatch letting them know the San Bruno incident may involve PG&E's gas transmission line in the area.	5, 4
24	6:32 pm	Gas Control left a message for San Francisco Division Transmission and Regulation (SF T&R) Supervisor (Chuck Martinez) because of Low-Low Alarm at Martin Station.	5
25	6:35 pm	Measurement and Control (M&C) Mechanic (Mike Hickey) calls dispatch about fire (can see fire from house) and heads into PG&E's Colma Yard.	4
26	6:36 pm	SF T&R Supervisor (Chuck Martinez) returned Gas Control call about Low-Low Alarm at Martin Station, reviewed SCADA data and told Gas Control to contact Peninsula Division T&R Supervisor.	5
27	6:40 pm	Peninsula Division On-Call Supervisor (Chris Baur) calls M&C Mechanic (Mike Hickey) after leaving message for Peninsula Division T&R Supervisor (Steve Poulo), and tells M&C Mechanic to report to the Colma yard. Mechanic was already driving to the yard when he received the phone call. On-call Supervisor (Baur) asks M&C Mechanic (Mike Hickey) to call 2 nd M&C Mechanic (Ed Sickinger).	6

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Line No.	Time	Description	Data Source
28	6:41 pm	GSR (Jareau Breiz) and off duty Peninsula On-Call Supervisor (Scott Robinson) are confirmed to be on-site based on call to Dispatch.	4
29	6:53 pm	SF T&R Supervisor (Chuck Martinez) communicated to Gas Control that San Carlos has crews heading to San Bruno. Supervisor has crews going to Martin and he will head to San Bruno to help effort to isolate the rupture.	5
30	6:50 pm	Approximate time first M&C Mechanic (Mike Hickey) arrives at Colma Yard	7
31	6:56 pm	San Bruno Police calls Concord Dispatch requesting gas support. This is the first Fire or Police call related to the rupture.	4
32	7:02 pm	M&C Mechanic (Mike Hickey) calls dispatch from the Colma yard.	4
33	7:06 pm	M&C Mechanic (Mike Hickey) calls his temporary Supervisor (Steve Poulo), letting his supervisor know he is going to isolate the rupture. Supervisor ok's plan.	6
34	7:06 pm	Approximate time two M&C Mechanics (Mike Hickey and Ed Sickinger) leave Colma Yard	7
35	7:20 pm	Approximate time M&C crew (Mike Hickey and Ed Sickinger) and SF T&R Supervisor (Chuck Martinez) arrive at first valve location (V-38.49).	7
36	7:28 pm	SF T&R Supervisor (Chuck Martinez) requests that Gas Control lower the pressure set points for V-10 & V-13 at Martin Station to isolate L-132 at Martin Station.	5
37	7:29 pm	Gas Control remotely closes valves V-10 and V-13 at Martin Station, isolating the pipeline north of the rupture.	1
38	7:30 pm	SF T&R Supervisor (Chuck Martinez) and 2-man M&C crew (Mike Hickey and Ed Sickinger) close valve V-38.49.	8
39	7:30 pm	L-132 rupture is now isolated.	8
40	7:42 pm	In field Superintendant (John Corona) contacts Gas Control to notify that the flames have diminished.	5
41	7:45 pm	SF T&R Supervisor (Chuck Martinez) and 2-man M&C crew (Mike Hickey and Ed Sickinger) close valve V-40.05 to maintain gas pressure in L-132 north of the rupture from MP 40.05 to Martin Station.	8

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Line No.	Time	Description	Data Source
42	7:46 pm	SF T&R Supervisor (Chuck Martinez) and 2-man M&C crew (Mike Hickey and Ed Sickinger) close valve V-40.05-2.	8
43	7:52 pm	SF T&R Supervisor (Chuck Martinez) and 2-man M&C crew (Mike Hickey and Ed Sickinger) close valve to prevent back-feed from District Regulation Station 190 at Glenview Avenue and San Bruno Avenue into L-132.	8

Data Sources

1. Alarm Log (NTSB_003-002)
2. Gas Control Instant Message Log (NTSB_003-002 supplement 1)
3. SCADA Logs (pressure data) (NTSB_001-013 supplement 1)
4. Concord Dispatch recorded phone calls (NTSB_003-002 supplement 3)
5. Gas Control recorded phone calls (NTSB_003-002 supplement 3)
6. Cell phone records (attached)
7. Approximate Time
8. T&R Mechanics field notes (Mike Hickey) (NTSB_003-002 supplement 1)