

Docket No. SA-534

Exhibit No. 5-B

NATIONAL TRANSPORTATION SAFETY BOARD

Washington, D.C.

Belmont-San Carlos Fire Department
Origin and Cause Report

(5 Pages)

ORIGIN AND CAUSE REPORT

SUMMARY OF EVENT:

Origin and cause determination.

NARRATIVE:

1. On, Thursday, September 9, 2010, at approximately 6:11 p.m., an explosion and fire occurred in San Bruno, California. Approximately 50 homes were damaged or destroyed. A multi-jurisdictional task force conducted the fire scene examination. The estimated loss was \$50,000,000. There were four fatalities and multiple injuries as a result of the explosion and subsequent fire. The explosion and fire were classified as undetermined.

PARTICIPATING FIRE INVESTIGATORS:

2. The following investigators participated in the scene examination:

Investigator James Palisi, Belmont-San Carlos Fire Department
Special Agent Brian Parker, ATF Certified Fire Investigator
Special Agent Barbara Maxwell, ATF Certified Fire Investigator
Special Agent Gabby Solleder, ATF
Investigator Christine Reed, Central County Fire Department
Bomb Technician Mark Duri, San Mateo County Sheriff's Office
Investigator Ron Keefer, Menlo Park Fire Protection District
Investigator Bill Euchner, San Mateo City Fire Department
Investigator Jeremy Davis, Santa Clara County Fire Department
Investigator Eric Emmanuele, Milpitas Police Department
Investigator Julie Parenti, Central County Fire Department
Investigator Mike Leong, San Mateo Fire Department

SECURITY:

3. The integrity of the scene was maintained by the San Bruno Fire Department throughout the scene investigation.

FIRE DISCOVERY: – 6:11 p.m. – Thursday, September 9, 2010

4. --(R)----- resides at --(R)----- in San Bruno. His contact telephone number is --(R)----- . He reported hearing what he thought was a “jet blast” and then saw a giant fire ball. There was no smoke visible. He then had his wife call 911.

WEATHER:

5. www.wunderground.com reported the following weather observation at San Francisco, California on September 9, 2010 at 5:56 p.m.: the wind was out of the west at 20.7 miles per hour, the temperature was 64.9° Fahrenheit and the dew point was 50° Fahrenheit. The humidity was 58%. The visibility was greater than 10 miles.

SCENE LOCATION:

6. The explosion and fire occurred in a residential neighborhood in San Bruno, California. The seat of the explosion was located at the intersection of Earl Avenue and Glenview Drive.

7. Glenview Drive extends north and south. Earl Avenue extends to the west from Glenview Drive. Earl Avenue and Glenview Drive intersect in a valley. The east side of Glenview Drive is occupied by a park.

LEGAL CONSIDERATIONS:

8. The fire scene investigation was conducted at the request and under the authority of the San Bruno Fire Department.

SCENE PROCESSING:

9. Investigative personnel arrived at the fire scene at approximately 8:30 a.m. (Friday, September, 2010).

10. A systematic approach was used; examination progressed from outside to inside and from areas suspected of having the least damage to areas of greater damage with emphasis on recognition, identification, and analysis of fire and heat patterns.

EXAMINATION OF THE EXPLOSION AREA:

11. The seat of the explosion measured approximately 30 feet east to west and 63 feet north to south. Upon arrival, it was filled with water from a broken water pipe, which was drained out to expose the bottom of the blast seat.

12. At the bottom of the blast seat were two segments of the remains of a 30 inch diameter natural gas transmission line. The wall of the pipe was approximately ½ inch thick. The transmission line extended from south to north. The segments were at the north and south ends of the blast seat.

13. The section of pipe that was originally between the two segments in the blast seat was located on Glenview Drive, approximately 85 feet south of the blast seat.

14. The north segment of the pipe in the blast seat was examined. It appeared that this segment separated from the section lying in the street at a seam, as the edge of the pipe was fairly smooth.

15. The south segment of the pipe in the blast seat was examined. It appeared that the section laying the street had been ripped from this segment as the edge of the pipe was jagged and uneven.

16. The two ends of the section of the pipe in the street were compared. The end that was originally connected to the north segment in the blast seat exhibited more rust than the end that was originally connected to the south segment in the blast seat.

17. The asphalt of Glenview Drive was examined. The road to the south of the blast seat did not exhibit notable damage. The road to the north of the blast seat had numerous cracks and these cracks appeared to have burn damage on the edges of the cracks.

18. The vegetation surrounding the blast seat was totally consumed. The damage to the vegetation decreased with distance in all directions from the blast seat.

19. The damage to the houses directly surrounding the blast seat was greatest in areas in close proximity to the blast seat. Damage to the surrounding houses decreased with distance in all directions from the blast seat.

DISCUSSION:

20. The area surrounding the blast seat was examined by investigators. No remains of car parts or explosive devices were located.

21. The local news media reported that residents in the neighborhood smelled natural gas in the area of the explosion prior to the fire.

22. The local news media also reported that there was a high pitched sound heard just prior to the explosion.

EVIDENCE:

23. There was no evidence collected. Investigators took digital photographs of the fire scene investigation.

NUMBER OF FATALTIES AND/OR INJURIES:

24. There were four reported fatalities, numerous injuries to residents and two firefighters were injured as a result of fire fighting operations.

CONCLUSION:

25. Based upon the fire scene examination, physical evidence and witness statements, and the knowledge of fire development, the explosion and fire originated at the intersection of Earl Street and Glenview Drive in San Bruno, California

26. The explosion and fire were classified as undetermined.

ESTIMATED VALUE OF LOSS:

27. The total fire damage was estimated to be \$50,000,000.

DISPOSITION:

Technical assistance provided.