

Propane Railcar Derailment in Queens

by Assistant Chief
John Acerno,
Queens Borough
Commander

photos by FF Rich Hoffinan



Right after the day tour began on July 6, 2007, the Fire Department was notified of a railway car derailment involving propane at Queens Box 8598 in the rear of 66-31 Otto Road in Glendale. Responding units must have been thinking about two recent similar propane railcar incidents in the same general area.

In March 2003, a propane railcar derailed near the same location, necessitating off-loading the propane, which took three days. On January 16, 2007, there was another propane derailment near this area, where a crane had to be brought in on an adjacent track in order to repair the "truck" (wheels on the train) and then place it back on its track. The New York and Atlantic Railroad uses these tracks to transport tankers full of propane to eastern Long Island. This neighborhood generally would be considered residential with some commercial occupancies.

In this particular incident, a seven-car train was going over a switch. The second car of the locomotive, a propane car (third position) and a flatbed car (fourth position) had all derailed as they went over the switch. All three of these cars were leaning slightly toward one side. Unfortunately, this was a very narrow right of way. If the cars did roll over, they would have impacted a commercial building about 10 feet away.

Due to the nature of the calls, the Queens dispatcher assigned Engines 286, 319 and 271, Ladders 135 and 124, Rescue 4, Squad 252, Haz-Mat 1 and Battalion 28 to the original Box at 0920 hours. Battalion Chief Tom Murphy, Battalion 28, established a Command Post, had precautionary lines stretched and began to set up tower ladders. Assistant Chief John Acerno, the Queens Borough Commander, was notified by Operations and responded, along with Deputy Chief Vincent Mandala, Division 11. Chief Acerno gave instructions via the Department radio not to move any railcars until the situation was fully evaluated.

Rescue 4 and Squad 252, along with the Haz-Mat and Safety Battalions, were tasked with making an evaluation of the situation and using their metering devices to detect any leaks. The rail personnel at the scene said the propane car was carrying a full load of 34,000 gallons of liquid propane. It still had not been odorized for commercial use, making detection difficult. The FDNY metering devices were not picking up any leaks.

There was no visible damage to the shell of the container or

cars. Using wood shoring, Rescue and Squad members began stabilizing the cars. Ladder companies began evacuating surrounding commercial properties and a nearby playground. The engine companies stretched hose-lines with fog nozzles. Because of the long stretches, relay operations were required. As a precaution, tower ladder baskets were raised with accompanying supply lines.

The problem now was getting the cars back on the track without doing further damage to the propane car and preventing the train from toppling off the track onto the adjoining building. After consultations with the railroad, it was agreed that they would be allowed to disconnect the propane car from the remaining cars to the rear of the train. A locomotive would be brought in from the rear of the train and drag out the remaining four cars (including the flatbed car). Since only one truck of the flatbed car was derailed, they felt it would go back on the tracks by itself as it was dragged backward, which is exactly what happened.

This left the propane car and the two locomotives remaining. The plan then was to bring in a crane and lift the propane car back onto the tracks. While this was being done, FDNY set up unmanned tower ladders and several multiversals. Haz-Mat and Squad members continued to meter the site, while the Safety Battalion monitored the entire area.

Further complicating matters, the Long Island Pipeline runs directly under the lay of these tracks. However, their representative said it is approximately four feet under the ground at this point and should not pose any additional problems.

This was a prolonged operation. Employing relay operations, unmanned large-caliber streams were set up. The summer day was hot and clear. Units were relieved at 1300 hours and again at 1800 hours. RAC Unit #4 responded. Eventually, the incident concluded after 12 hours.

Lessons learned/reinforced

- Set up a Command Post as soon as possible. Many agencies (NYPD, EMS, LIRR personnel and PD, MTA PD, Buckeye Pipeline, Parks Department, OEM and NY & Atlantic RR) eventually showed up at this operation. There must be one focal point. The location of the Command Post had to be moved several times as the situation evolved. The FDNY Incident Commander should request an NYPD representative similar to



Heavy equipment was brought in to lift the propane car back onto the tracks.

his/her rank.

- Wind direction and weather conditions should be considered. If there was a leak, the propane gas plume--about twice as heavy as air--would hug the ground and be influenced by wind and/or FDNY's fog streams.
- After consultation with the NYPD and OEM, an evacuation zone must be agreed upon. A leak with an accompanying ignition would be catastrophic. Since there was no leak, it was decided to evacuate a six-square-block area, shut the local subway down and shut the Pipeline down when the propane car was lifted back onto the tracks.
- Railroad personnel tend to downplay these incidents. FDNY members must remember that the Department's mission is not to save the railroad money at the expense of civilians. As it turned out, the railroad had to ask for assistance from the Long Island Railroad. When they attempted to place the propane car back

onto the tracks, they could not do it. The rails had shifted because of the derailment; the gauge had changed. When the crane tried to lift the propane car, there was a problem with the lifting cables. Most operations like this move very slowly. Everything must be well thought out with safety as the paramount concern.

- The Mobile Command Post was special-called since it was a prolonged operation. Additionally, the FDNY Public Information Office was asked to respond since there was media involvement.
- For security and safety reasons, FDNY must ensure the railroad is notified should it be necessary to cut any of their fences.
- Keyspan was consulted in case it was necessary to cut gas service.
- Way Bills were obtained from the railroad in order to discern whether nearby railcars "parked" in the area had any hazardous cargo.
- Battalion Chiefs should be special-called in order to supervise various geographical sectors.

Conclusion

This was a long, tedious operation with much down time. The weather was debilitating. However, the potential for a disastrous event existed. As always, FDNY's members acted in a very professional, calm manner. The results were good: The train was placed back on the tracks. There were no injuries. The neighborhood was safe once again.

About the Author...

Assistant Chief John Acerno was a 35-year veteran of the FDNY. He recently retired as the Queens Borough Commander. A prior assignment included Division Commander of Division 14. This is his second article for WNYF.



Jonas, continued from page 36

- c. Reconnaissance, accounting for and removal of the surface victims, search of the voids, general rubble clearance, selected debris removal and tunneling.
- d. Reconnaissance, accounting for and removal of the surface victims, selected debris removal and tunneling, search of voids, general debris removal.

9. Proper portable ladder placement at fires is important for the safety of operating forces and the efficiency of operations. Consider the following statements about portable ladder placement and choose the least correct statement.

- a. When venting a window with a member on a ladder, place the ladder upwind from the window to be vented. The tip of the ladder, if possible, should be level with or higher than the top of the window.
- b. When placing a portable ladder at a roof, the tip shall be one to three feet above the roof or parapet.
- c. When placed against a fire escape, the tip shall be slightly above the fire escape railing.
- d. When placed at a window, the tip shall be level with the windowsill.

10. Whenever Firefighters operate at fires, all operations should be performed in the safest possible fashion.

Generally, what is the preferential order for removal of people from a fire building?

- a. Interior stairs, fire escapes, ladders, horizontal exits, lifesaving rope.

Answer Key

1. Answer is D. (FFP Private Dwellings, Ch. 3, 1.5)
2. Answer is C. (FFP Private Dwellings, Ch. 3, 2.7.2)
3. Answer is C. (FFP Private Dwellings, Ch. 3, 2.7.4)
4. Answer is E. (FFP Taxpayers, 4.4.1)
5. Answer is C. (FFP Taxpayers, 5.4.8)
6. Answer is B. (FFP Taxpayers, 7.1.4)
7. Answer is A. (FFP Multiple Dwellings, 6.1.4)
8. Answer is A. (FFP Collapse Operations, 11.1)
9. Answer is B. (FFP Portable Ladders, 8.5)
10. Answer is D. (FFP Aerial Ladders, 6.7)

- b. Fire escapes, ladders, interior stairs, horizontal exits, lifesaving rope.
- c. Ladders, fire escapes, interior stairs, horizontal exits, lifesaving rope.
- d. Interior stairs, horizontal exits, fire escapes, ladders, lifesaving rope.

About the Author...

Deputy Chief John A. Jonas is a 28-year veteran of the FDNY. He is assigned to Division 7. As a Battalion Chief, he was assigned to Battalion 2. Previous assignments include Ladder 6, Ladder 11, Rescue 3, Ladder 27 and Engine 46. He holds an AAS degree in Fire Protection Technology from Orange County Community College and a BS degree in Fire Administration from Empire State College. He is a regular contributor to WNYF and authors the Students' Corner.

