

# ***Brooklyn Telephone Company Exchange Fire February 18, 1987***

***(Lt. John Conrad Batt. 18 / Lt. Dennis DiTucci Lad. 138  
FF Jim Mushlit / FF Gil Sullivan / FF Nick Reres / FF Dave Murolo  
FF Phil Hudak / FF Vin Doherty / FF Ron Fassler / FF Phil McArdle  
FF Al Schwartz / FF John Hopkins / FF Tom Daly / FF John Cully  
FF Scott Kirchoffer / FF Gene Kelty Lad 136 / FF John Viola Eng 270***

At 0340 hrs. on the morning of Wednesday February 18,1987, Haz Mat 1 was special called to "All Hands" at Brooklyn box 827. From the location given one of the members commented that the fire was at the site of a Telephone Exchange. With this information the members began to formulate plans to deal with the particular hazards associated with Telephone Exchanges.

Upon arrival Haz Mat 1 was met by the chief of the 44 Battalion. He requested an immediate check of our reference library as to any listed special hazards. As Haz-Mat 1 was already keyed into the telephone scenario, we were able to tell him that the building at 1070 Bushwick Ave. was not listed as a known hazardous occupancy, however many telephone company buildings used Polyvinyl Chloride for insulation on various wires, and that the thermal distillation of PVC produces many harmful substances. One of the most dangerous substances to be produced is Hydrogen Chloride fumes. It did not escape many that the telephone company fire in Manhattan back in 1975 had cost firefighter lives and health and safety issues to this day for members of the department who responded to this event. Two members of Haz Mat immediately began to use Draeger Test tubes to quantify the amount of HCL fumes present. The test results produced a slightly positive result. This degree of exposure would cause no additional protection than the normal firefighting gear and masks, special entry suits would not be indicated.

Upon reporting into the command post, Deputy Chief Browne inquired if Haz Mat had Vent Fans, and if so to put them in operation in a rear exit. Haz Mat then placed its two large fans in a door at the rear of the building.

Lt. Konrad, Haz Mat Officer, then informed Chief Browne that. Haz Mat was equipped with 1 hour Scott Masks. Haz Mat was then ordered to stand by in reserve. Haz Mat was next ordered to relieve Engine 252 when their air bottles were depleted. Haz-Mat took over the line, began to search for any more fire in the area. The smoke, residual heat, high ceilings and cable raceways made locating fire very difficult. Haz Mat was then ordered to operate a fog nozzle out one of the windows to aid in ventilation. After approximately 15 minutes of venting with the FT2 and obtaining good air movement there was

no improvement in the smoke situation.

At this point Lt. Konrad informed Chief Browne of the Thermal Imaging Camera that Haz Mat had recently been issued (at the time it was the only camera on the job. It was shown that this improved unit has the capability of "seeing" the surroundings without most of the obscuring smoke and is also able to visualize areas according to their temperatures. Haz Mat was ordered to put the T.I.C. in service.

An initial survey by the Thermal Imaging Camera on the fire floor revealed several hot spots that were not visible to the unaided eye. As the cables burned the insulation produced ash on the surface that obscured the areas of deep-seated fire. The cable runs on the first floor were approximately 10 feet off the floor and 2 to 4 feet from the ceiling. Each of the "aisles" involved was 140 feet long and only 3 feet wide. The dimensions of the area made stretching and operating hose lines extremely difficult. To complicate things more, cables, suspended from the ceiling in substantial angle iron and box beam hangars, formed a tangled maze overhead that would make traditional methods of overhauling very difficult. Another hazard of the operation became known when a Battalion Chief informed us that there was no confirmation of DC power removal from the switching equipment. Three areas of burning were identified on the first floor by the T.M.I. These areas were reported to the Battalion operating in this sector by Haz Mat.

Following the initial survey on the first floor, Chief Browne ordered Haz Mat to the second floor to survey there. Haz Mat was met at the second-floor landing by Rescue #2. Captain Downey informed us that there was a very heavy smoke condition on the floor, moderate heat, and no visible fire. Rescue had vented the floor, but once again the smoke wasn't lifting as quickly as it seemed it should have.

Haz-Mat survey on the second floor proceeded along the switching frames. Approximately 5 minutes into the search a hot spot was found in a floor-to-floor thruway containing numerous cables. Once again, visually there was nothing to show the amount of fire contained within, however when kicked the insulation ash fell away exposing red-blue-green flames located inside. Haz Mat operated approximately 5 CO<sub>2</sub> and 5 H<sub>2</sub>O extinguishers on this fire without results, a line was called for.

Further survey with the T.I.C. on the second floor and third floor under supervision of the sector Battalion Chief showed several hot spots, but investigation of these areas failed to show active burning.

At this point the night tour of Haz Mat has been operating for 5 hours and expended 12 1hr Scott bottles and 24 ½hr Scott bottles. As the situation seemed stable Chief Browne ordered Haz Mat to return to quarters to effect relief. The day tour returned to Bushwick to conclude operations. They continued to use the Thermal Imaging Camera. The first floor showed an overall high heat concentration at the ceiling level. There were no specific areas of active burning visible at this time. The search then went to the second floor. The fire was identified cable risers.

The area on the second floor where the night tour had first found fire

coming through continued to burn although a line was applying water. It was suggested to use the Hurst Tool. The initial operations with Truck Company Hurst sections proved to be noisy and additional contaminants were being produced by the two cycle engines. Haz Mat recommended using their electric powered Hurst power unit. The electric units provided a better working environment.

Haz Mat members then began to use the Hurst Omni Tool to both spread and cut the cables. As the cables were opened-up, Engine companies extinguished fire as it was found. These operations were conducted in two different areas,

As operations progressed Haz Mat used various monitoring meters to keep track of explosive gases, Oxygen supply and Carbon Monoxide levels.

Through secondary survey utilizing the T.I.C. and Infra- red heat detector progressed.

Haz Mat members escorted various telephone experts in their surveys of the building. One of these surveys was with building engineers. A second survey was with NYNEX Hazardous Materials expert who identified such problem materials as Mercury from switches, Radioactive Krypton gas, Hydrogen Chloride. These surveys proved all dangerous exposures to be well within safe levels.

The heat and smoke condition finally lifted and Thermal Imaging showed all areas to be within normal limits.

The day tour took-up after eight hours of operation. The members

expended approximately 14 one-hour Scott bottles and Forty half hour bottles.

At the Bushwick Telephone fire, Hazardous Materials Company 1 operated 14 hours and performed numerous tasks from basic fire- fighting to technical tests for chemicals and radioactive materials. They performed surveys for hidden fire, operated specialized equipment - Hurst Tools, smoke ejectors and generators! Most operations were conducted in smoke and heat wearing masks, yet there were no injuries and all tasks were done in a professional manner.





