Queens Junkyard Fire Requires Foam Operation

By Deputy Chief George K. Healy

This is the scene that greeted units responding to the August 16, 2019, Queens junkyard fire.

On Tuesday, August 6, 2019, at 1537 hours, the Queens Communications Office received a report of a car fire at 150-19 Liberty Avenue. Engine 303 and Ladder 126 were dispatched at the time of the initial call. As additional calls flooded into Queens Dispatchers, the scope of the incident became clearer. The Dispatchers filled out the assignment within a minute of the first call, adding Engines 298 and 275, Ladder 133 and Battalion 50. While responding, Dispatchers reported to Battalion 50 that callers reported multiple cars burning in a junkyard. En route, Battalion Chief Steve Browne transmitted the 10-75, based on the large column of thick, black smoke that was visible and his intimate knowledge of the commercial district that comprises Liberty Avenue.

Engine 303 and Ladder 126 arrived and immediately initiated operations on a large body of fire that was advancing rapidly. Based on the volume of fire, Engine 303, under the command of Lieutenant Brendan Hagan, stretched and operated a 2½-inch land line. Working in Ladder 126, Lieutenant Michael Hagen contacted workers in an effort to ensure all workers were accounted for. Ladder 126 members began searches of the expansive junkyard that measured 36 by 213 feet.

On arrival, Chief Browne took command and established the Command Post on Liberty Avenue, at the entrance to the junkyard. Confronted with a fast-spreading fire through stacks of junked cars, Chief Browne needed lines rapidly positioned to try to prevent the fire from entering the numerous large commercial structures that encircled the junkyard. With the relatively short hose stretches, Engines 303, 298 and 275 were able to quickly stretch and operate 2½-inch lines in an attempt to stop the advancing fire. Ladder 127 began searches of the exposures and simultaneously positioned and set their rig for the anticipated master stream operation that this incident required, based on conditions.

Chief Browne was confronted early on with a large volume of fire severely threatening multiple large commercial buildings. He recognized the need for additional resources

The burning junkyard cars threatened nearby commercial buildings.

and within 10 minutes, transmitted the second alarm. Information gathered on the scene was relayed by Chief Browne to all units to operate with due caution; workers informed the Command Post that the fire was sparked by torch operations and the acetylene torch remained in the fire area.

Still responding and based on radio reports, as well as experience with these very stubborn fires, Deputy Chief George K. Healy, Division 13, transmitted the 10-86 to bring additional foam resources to this incident. On arrival, Chief Healy was updated by Chief Browne on the status of the searches, line positioning, exposure problems and status of the fire attack. Reports were confirmed that all workers were accounted for, but fire continued to severely threaten the exposures. As second-alarm units arrived, engine companies were assigned to back up the first-alarm units that still were operating their 2½-inch lines on their own.

With the large fire load of stacked, junked vehicles and a persistent fire that was difficult to darken down, Ladders 127 and 155 were ordered to prepare for tower ladder operations in an effort to still prevent involvement of the commercial structures. While the elevated streams were being set up, a hose-line was rapidly stretched to the roof of exposure #3 by Engine 308 to gain the advantage of an elevated stream and prevent extension to the commercial buildings that were seriously exposed by this advancing fire.

Ladder 127 set up on 150th Street on the west side of the incident and Ladder 155 set up in an adjacent junkyard on the eastern side of the incident. Engines 308 and 302 supplied the tower ladders and after units confirmed they were in safe positions, both tower ladders began operating their master streams. With the three hand-lines and two tower ladders now operating, a significant improvement in conditions was noted.

As the main body of fire was being controlled, it was noticed that flammable liquids were dripping from some of the stacks of cars and the pools of burning liquid had to be addressed. The Command Tactical Unit arrived and the drone was deployed to aid the Command Post with directing operations and units to ensure final extinguishment. The drone proved invaluable for the Incident Commander (IC) to get perspective on the status of the fire attack, as well as the thermal view of the scene to identify hot spots and direct line placement from safe locations to limit risk to members from the potential of collapse from the stacks of junked vehicles.

Captain Mark Becker, the Foam Coordinator, arrived and immediately after consultation with the Command Post, began preparations for the foam operation. Of concern at the Command Post were reports of numerous gas tanks located throughout the yard and on building roofs that contained remnants of gas and fumes that were contributing to the fire problem, dictating the urgent need for foam operations.

Engine 96 with Foam 96 and Engine 238 with the foam tender responded. With the majority of the fire controlled with the operation of three hand-lines and two tower ladders, the decision was made to operate two foam hand-lines to provide a foam blanket over the area, extinguishing the remaining pockets of fire, which were mostly flammable liquids that were pooling under the vehicles. Engines 308 and 275 stretched their foam hand-lines and when they were prepared to commence with the foam operations, the hand-lines and tower ladders were shut down. The foam operation continued until a foam blanket covered the yard and there were no indications of burning fluids.

Command Chief, Deputy Assistant Chief Kevin Brennan, arrived on-scene and assumed command of the operation. With the fire now extinguished, Haz-Mat 1 was tasked with mitigating two 100-pound acetylene cylinders and some nuisance liquid spills. A third alarm was requested at 1637 hours for relief and overhaul. The incident was placed under control at 1709 hours by the orders of Chief Brennan and a watch line remained in place until 2231 hours.

This challenging incident was quickly and safely brought under control through the determination of arriving units and the quick and proactive transmission of additional alarms and special calls. The rapid stretching and operating of multiple 2½-inch hose-lines by first-arriving units were critical in preventing this fire from extending into large commercial buildings and becoming a fire of major consequence. Unit supervision in this extremely hazardous occupancy and tight command and control ensured that this operation was safely brought to a quick conclusion. As expected, the members of our Department operated in FDNY's highest traditions in combating this fire. ■

WNYF References

1. "FDNY and its Use of Tethered Drones," by Firefighter Michael Wall, in the 2nd/2016 issue.
2. "Foam Operation at August 6, 2019, Queens Junkyard Fire," by Captain Mark Becker, in this issue.

About the Author

Deputy Chief George K. Healy has served the FDNY since 1991. He is assigned to Division 13. Prior assignments include Ladder 3 and Rescue 1 as a Firefighter; Division 15 and Ladder 174 as a Lieutenant; Division 14 and SOC as a Captain; and Battalion 51 as a Battalion Chief. He writes frequently for *WNYF*.

Foam Operation at August 6, 2019, Queens Junkyard Fire

By Captain Mark Becker

Car fires frequently are viewed as nuisance fires by some members of FDNY, but if we learned anything from "car-mageddon" at the Kings Plaza Mall incident when we had multiple vehicles on fire, it proved that such events can be a major problem. Vehicles are constructed mostly of plastics or other types of hydrocarbons and contain flammable and combustible liquids. They burn with intense heat and dense, acrid smoke. Fires in scrap and junkyards with multiple vehicles burning can create situations that call for alternative extinguishment methods.

Initially, engines deployed 2½-inch hose-lines before implementing the foam operation.

On August 6, 2019, the initial alarm came in as a fire in a junkyard. When the 10-75 was transmitted, it was reported as 15 to 20 vehicles burning. As Deputy Chief George K. Healy, Division 13, started out, he transmitted the 10-86, generating a foam response. Currently, on the 10-86, three foam tankers, a Satellite, two purple K units, two Battalion Chiefs to perform as Foam Coordinators, a Foam Manager and haz-mat resources are deployed.

At the time of this incident, the foam tender also responded, but no longer is in service due to its age and mechanical complications. Captain Mark Becker, Foam Manager, arrived on-scene and reported to the Command Post. The Incident Commander (IC) requested multiple foam hand-lines stretched and operating while waiting for foam resources to arrive.

With the amount of flammable and combustible liquids stored and spilled inside these junkyards, it creates an extraordinary problem to extinguish with water alone and the need for foam usage becomes crucial. At junkyards, the ground is usually dirt or gravel. This becomes an issue when applying foam. Foam must be able to float on top of the fuel, which usually is lying on top of the pavement. When fuel is soaked into the ground, it presents another challenge to applying foam for extinguishment; thus, requiring more foam.

During this operation, two hand-lines were converted to foam. Engine 275 was ordered to convert their 2½-inch handline. The chauffeur removed the pelican case and placed the eductor on the engine outlet. The nozzle from the foam kit was brought to the front of the line and switched out. Water then was restarted through the line and members began extinguishing the fire with foam.

While Engine 275 was applying foam, Engine 308 then was switched over to a foam hand-line as well, following the same procedure. One issue that arose is that engine companies carry only three cans of Universal Gold AR-AFFF foam and we quickly started running out of product. One of the Battalion Chiefs assigned as the Foam Coordinator was tasked with assembling foam resources from other apparatus on-scene and transporting them to the two companies operating with foam hand-lines. We were quickly running out of foam, but the fire was successfully knocked down with just the hand-lines.

While the operation was ongoing and the fire was being extinguished, we were discussing options for using our foam resources at this incident. For the FDNY, the best tool and fastest way to get a large amount of foam on a fire is to employ the five foam tanker apparatus. These apparatus are equipped with a self-educting Gladiator nozzle on their deck gun and a 1,500-gallon tank of foam concentrate. They just need to be supplied with a 3½-inch supply line and then can provide 500-1,000 gpm of foam. In lieu of hand-lines, the tankers could have been placed at the entrance of the junkyard and then would have covered the entire area. ■

WNYF References

1. "Queens Junkyard Fire Requires Foam Operation," by Deputy Chief George K. Healy, in this issue.
2. "Innovative New Foam Equipment," by Battalion Chief Steven San Filippo, in the 4th/2018 issue.
3. "Universal Gold Foam Concentrate 1%/3% AFFF (Red Band Container), by Battalion Chief Steven San Filippo, in the 4th/2017 issue.
4. "Not Just a Bulk Delivery System—Functions of the New Foam Carriers," by Deputy Chief Richard Burban and then-Battalion Chief Joseph C. Saccente, and "Special Apparatus column, FDNY's New Foam Carriers," by Battalion Chief John A. Calderone, in the 3rd/2003 issue.
5. "FDNY's Basic Foam Evolution," by Deputy Chief Richard Burban, in the 1st/2004 issue.

About the Author

Captain Mark Becker has served the FDNY since 2003. He is assigned to Haz-Mat Operations as the Foam Manager and Buckeye Pipeline Coordinator. Previous assignments include Ladder 43 and Squad 1 as a Firefighter; covered in Battalion 45 before being assigned to Engine 250 as a Lieutenant; and covered in Haz-Mat Operations before becoming the Foam Manager. He holds a BA degree from John Jay College. This is his first contribution to *WNYF*.