

on July 10, 2007

At 1548 hours HM-1 was called to respond to Brooklyn box 2665 for a report of a structure fire. Initial reports informed the unit that an acetylene cylinder was burning and caused concern to operating units. Upon arrival HM-1 found a 60 lb acetylene cylinder located in an enclosed storage yard burning under pressure from the fusible plugs that had melted due to the fire. The cylinder was in a precarious position. It was standing in a small semi-enclosed 4'x6' storage room against the exterior wall of the building, above a mezzanine storage area with the stored contents burning as well as the metal joist and metal decking roof above, that had partially collapsed over the mezzanine area and the burning cylinder. Lt. Berna, FF Reder and FF Mulligan entered with permission of the IC Chief Jonas and under the protection of a line to assess the burning cylinder. A complete assessment was difficult due to the partial collapse, location of the cylinder and length of time the cylinder was burning, which was slightly over one hour. A thermal imaging camera was used to check if the inside of the cylinder was burning, but it could not be determined due to the fact that half the cylinder was against the wall. It was decided to set up a large caliber stream further back from the initial protective line and a second line was stretched on the exposure 2 side outside the yard on top of a school bus. Despite good intentions a good effective cooling stream could not be established without extinguishing the fire from the cylinder. Complicating issues was that the contents in the mezzanine area was left to burn and not extinguished due to fear that water run off would extinguish the flame on the cylinder causing a build up of acetylene gas.

Due to flame impingement on the upper level of the cylinder, in consultation with Chief Jonas and Chief Nagliari of the Haz Mat Battalion a plan was developed to mitigate the incident rather than chance cylinder failure.

FF McArdle gathered information on extinguishment and movement of burning cylinders, which is not recommended by industry experts (paperwork enclosed). Lt. Berna, FF Herold, FF Cultrera and FF Maloney approached the cylinder under a protective line and began moving assorted stock and equipment away from the site and cleared a path for movement. Lt. Berna was able to get a full view of the cylinder and confirm that the acetylene cylinder was not burning from the inside but that the top of the cylinder was hot. Two additional cylinders were discovered under the water run off and moved to a safe site by FF Barrett who was assessing the structural stability of the mezzanine and roof area, as well as keeping an eye on the fire above the members working below. Under the direct supervision of Chief Nagliari a second entry was made. E-250 (Tech Engine) advanced a protective line as Lt. Berna and firefighters Reder, Mulligan, Cultrera and Maloney entered the area where the cylinder was burning. Engine 250 extinguished the fire in the mezzanine area and then quickly extinguished the fire from the cylinder. FF Reder and Mulligan picked up the cylinder assisted by FF Cultrera and Maloney and carried the cylinder approximately 40' to an 85 gallon drum filled with water. The cylinder was opened to expedite the operation. The acetylene was now rendered safe as the leaking gas was being scrubbed by the water in the drum.

Though not recommended, extinguishing the fire and moving the cylinder was the best course of action due to the circumstances presented. Due to the fact that the members of Haz Mat Co.1 performed in such a manner and displayed outstanding team work under difficult circumstances I respectfully recommend they be given serious consideration for a Unit Citation.

Respectfully submitted,