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COMMUNITY HEALTH: *Hometown Heroes*

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February 24th 2012 is the 125th anniversary of the former Village (now Hamlet) of Mumford, located in the Town of Wheatland, County of Monroe, and State of New York. As with thousands of communities throughout the United States, volunteers have protected our homes and families. The service these men and woman provide to their neighbors goes largely unrecognized, but deeply appreciated every time there is an emergency. In public health, they fulfill a large part of the third core function known as "Assurance." The following is a true story and demonstrates their courage and dedication.

On September 13, 2011 the hamlet of Mumford, in the Town Wheatland, County of Monroe and in the state of New York experienced a Propane BLEVE. A BLEVE is a boiling liquid expanding vapor explosion (Peterson, 2002). Before the fire was contained, four fire alarms were sounded, calling 39 fire departments and over 350 firefighter to the scene (MCFW, 2011). State and County Hazmat teams were deployed, and a level 2 hazmat emergency was declared (MCFW). Two other fire and EMS battalions were put on standby to come to the scene in the event 70,000 gallons of high pressure propane *(expanding at a rate of 30:1 when release)* exploded. County and State officials estimated the crater from the explosion could have a diameter of one mile MCFW). According to a Monroe County report, the explosion would have destroyed and leveled the hamlet of Mumford and over half of the adjacent town of Caledonia. The potential deaths and injuries were estimated to exceed 18,000 and property damages well over 250 million dollars (MCFW).

A BLEVE occurs when liquid with in a container reaches a temperature well above its boiling point and causes the container to rupture. As the BLEVE occurs numerous fragments may travel hundreds of yards and the fuel ignited as it escape (NFPA, 2011). What makes propane so dangerous is that as is released it remains airborne while dissipating (NFPA). However, when ignited it becomes a huge fire ball (NFP). According to 2010, Emergency Response Guidebook in case of a propane fire the minimum safe distance from the fire is 1600 meters in all directions (ERG, 2010).

As the first alarm sounded, Mumford and its mutual aid partner arrived on scene. As additional alarms were sounded, the scope and complexity of the incident increased. Among the problems faced were communication and water supply. With so many departments called up from 3 different counties, interoperability became a problem. When a high tech solution failed, a good old common sense solution prevailed. The fire required over 3 million gallons of water. The existing water service could not supply enough water and the suburban fire departments did not know how to draft water from nearby creeks. Command solved the problem by matching rural and suburban agencies to take advantage of each skill sets. County and State official worked with the Mumford Fire Chief as the incident commander, given his experience with the site, inoperability and water supply issues. After the incident, all agencies participating along with county, state and FEMA officials, conduct debriefings and training sessions to review the incident, discuss areas needing improvement, and how future incident should plan to handle similar events.

The majority of these emergency personnel are volunteers that serve our communities and put their lives on the line during emergencies. We all should feel blessed to have such giving and self-sacrificing individual living among us. Their families should be remembered too, as they are left behind every time these men and woman leave to home for an emergency call.

Happy Birthday Mumford Fire Department and thank you for all you do.

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