

Universal Gold Foam Concentrate 1%/3% AR-AFFF (Red Band Container)

By Battalion Chief Steven San Filippo, Foam Manager

The environment in which the FDNY operates on a daily basis changes constantly and affects everything that members do. From our operating procedures, to staffing, to equipment, the world continues to morph and it is incumbent upon the Department and its members to adapt to these changes. The Department's foam operations and equipment is one area that has experienced significant change recently. New foam equipment—such as five new foam tankers, upgraded eductors, nozzles and, of course, new and improved foam concentrate—complements our foam operations.

The Department now has adapted a new product called Universal Gold 1%/3% AR-AFFF (alcohol-resistant, aqueous, film-forming foam) in red band, five-gallon containers. (See photo.)

Any member who has some time on the job will remember when the Department used only AFFF foam. The original AFFF foam proved to be problematic. It had a tendency to drain quickly, failed to maintain a continuous foam blanket, had poor burn-back resistance and failed to properly provide a seal when members entered the foam blanket for search and/or rescue. The FDNY no longer uses AFFF, but for informational purposes, AFFF is still the foam of choice used at local airports by the Port Authority. This is due to its quick knockdown capability.

Note: If the FDNY is called to operate at a Port Authority airport where AFFF is applied prior to our arrival and our members are expected to perform search and/or rescue operations, it is imperative that members apply the FDNY's Universal Gold foam to reinforce the existing foam blanket.

Universal Gold AR-AFFF 1%/3% has improved on all of the previously noted problems. As FDNY's Foam Manager, I frequently am asked why we went back to an AFFF product. The answer is Universal Gold AR-AFFF 1%/3% has undergone significant changes that now provide the Department with a foam concentrate that meets or exceeds what our Firefighters expect and demand. Additionally, the Department's switch to Universal Gold now meets or exceeds the federal government's requirements for a firefighting foam concentrate as it relates to the environment.



Universal Gold replaced fluoroprotein (brown band container) and alcohol-resistant fluoropolydohl (green band container) foam. Universal Gold AR-AFFF 1%/3% foam concentrate is an alcohol-resistant, aqueous, film-forming foam.

These new requirements would have made FDNY's existing firefighting foam products obsolete and a change would have been inevitable. Being proactive and upgrading quickly enabled the Department to meet these standards and provide field units with the best product available.

Universal Gold foam provides the FDNY with the capability to combat and extinguish flammable liquid fires (hydrocarbon, polar solvents, oxygenated fuel blends), which are the products most frequently transported through New York City. Currently, the FDNY supplies Universal Gold AR-AFFF 1%/3% foam concentrate to all units. Five-gallon containers are issued to all engines and ladders; 1,500 gallons are carried in each of the five new foam tankers; and the large fireboats (Marine 1 and Marine 9) carry 3,200 gallons each. In addition, all of the smaller marine units carry Universal Gold either in tanks or five-gallon containers.

Universal Gold is an environmentally responsible foam concentrate that is suit-

able for use with fresh or salt water. Also, it is compatible with FDNY's six Purple K powder units. Typical applications include fires in storage tanks, loading racks, docks, process areas, warehouses, fuel trucks and also for vapor suppression at spills.

This year, Universal Gold played a crucial role in containing flammable liquid vapors from a gasoline leak that occurred on January 28, 2017, at a bulk fuel yard on 125 Apollo Street in Brooklyn. The 6,000-gallon gasoline leak was contained within the dike area during a transfer of the fuel. Universal Gold AR-AFFF 1%/3% was applied to the dike area to cover the gasoline, reduce the production of vapors and significantly reduce the chance of ignition. There is no doubt that the application of Universal Gold AR-AFFF 1%/3% foam was instrumental in the successful mitigation of this operation.

Reference

"10-86 at a Bulk Fuel Yard," by Deputy Chief Fred Schaaf, in this issue of WNYF. ■



About the Author

Battalion Chief Steven San Filippo has served the FDNY since 1978. He is assigned to Haz-Mat Operations as the Foam Manager. He has completed the West Point Counterterrorism, Leadership and FDNY Officers Management Institute (FOMI) programs. He holds a Bachelor's degree in Fire and Emergency Management and a Master's degree in Emergency Management from John Jay College. He was part of the FDNY contingent that responded to New Orleans following Hurricane Katrina. He has written numerous articles on firefighting foam operations for WNYF.