

HCT and F-500 EA Can Help, When Things Really Stink

For several months, the village of Attica, New York was overwhelmed by a noxious odor emanating from a 200-foot length by width, 40-foot high pile of recycled glass, plastic and other materials at nearby Hillcrest Industries. The source of the smell was a fire smoldering, deep inside the pile.



In light of Hazard Control Technologies' (HCT) successes with deep-seated, bulk material fires, a representative from HCT approached Hillcrest on September 5, 2012 offering F-500 Encapsulator Agent (EA) as a solution for both encapsulating the odor and extinguishing the fire. On September 25, a firefighting effort began at 9:00 a.m. with a Piercing Rod System and 1% F-500 EA from HCT. The first well was 750°F at about 25 feet below the surface. After piercing to 25 feet, they flowed F-500 EA for 2 1/2 minutes. The temperature quickly dropped to 69°F as the solution permeated the recycled materials. The second well was 525°F and again showed a rapid drop in temperature. The third well was quickly extinguished, but at 2:00 p.m.

the EPA advised the team they were taking over management of the pile. The EPA agreed the F-500 EA was working, but believed the pile was too large to manage and planned to recommend a contractor be hired to excavate the entire pile.

The methane and benzene that were creating the odor were reduced from 3-6 ppm to zero. A neighbor interviewed on the radio stated the odor was gone.



Piercing Rod Operation Begins



Piercing Rod Systems with carts are available from HCT



On September 29, after a brief safety meeting, a contractor began to dismantle the pile as instructed by the EPA. Due to the success shown by the F-500 EA with the Piercing Rod, it was decided F-500 EA would be used to encapsulate odors and extinguish any hot materials as they dug into the mound. The F-500 EA was continually sprayed from an aerial work platform positioned high above the excavation. Ninety gallons of F-500 EA was added to a holding tank containing 9,000 gallons of water to deliver a 1% solution. A large pump was used to deliver the F-500 EA solution with a 1 3/4" hand line to the aerial platform for the excavation and one to the staging area, as a backup. Meanwhile, the EPA monitored the air quality with consistent benzene and methane readings of zero. Two excavators loaded the recycled material onto dump trucks, where it was removed to a second site. The material was spread out and rolled to make sure all of the air was removed to prevent further spontaneous combustion. The compressed material was then moved to multiple, smaller, more manageable "cold" mounds.

The EPA declared the pile was completely extinguished on October 16. In total, 570-gallons of F-500 Encapsulator Agent were used over the two week excavation to ensure no odors escaped and that every bit of the recycled material was cooled and would be safe to move to the new pile. Because the F-500 EA penetrates bulk materials so efficiently, the small amount of F-500 EA used never created a runoff problem from the constant spraying.

Spontaneous combustion is an ever present danger with any combustible material. With the HCT Piercing Rod and F-500 EA on hand, Hillcrest is well prepared to immediately handle any future hot spots.



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