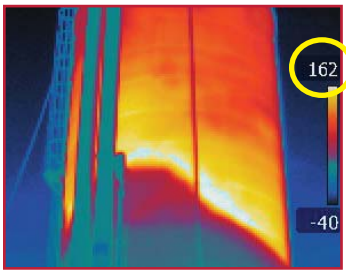
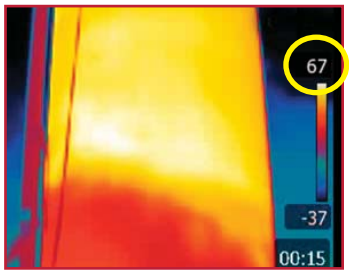
F-500 ENCAPSULATOR TECHNOLOGY

INCIDENT INFORMER

F-500 Encapsulator Agent to the Rescue After Silo Smolders for a Week



Initial Assessment



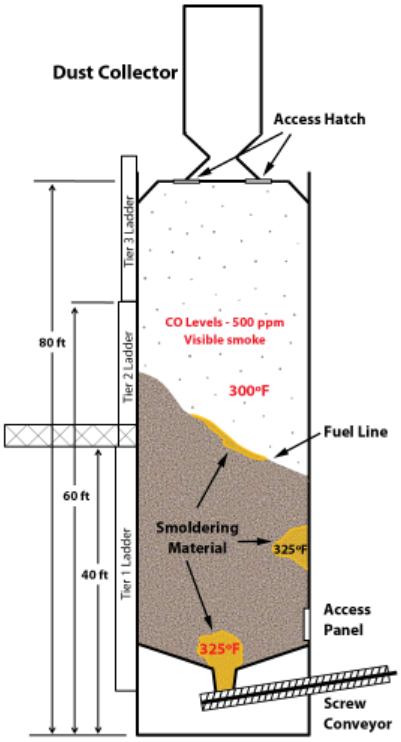
Final Assessment

Thermal images show the temperature of the silo wall. After treatment with F-500 EA, the maximum temperature dropped to a safe 67°F.

On October 2, 2013, Salem Fire-EMS crews were dispatched to the Salem Frame Company to extinguish a wood dust silo fire that had been smoldering for a week. When they arrived, smoke and flames were coming out of the top of the silo. Using a ladder truck, the fire was believed to be extinguished with minimal damage, but the fire continued to smolder and a fire watch was set up to monitor the silo 24 hours a day.

Five days later, on October 8, Hazard Control Technologies (HCT) from Fayetteville, GA was brought in to provide expertise to extinguish this fire for good. HCT has a reputation for handling "hot spot" combustible dust fires in silos, bunkers and stock piles containing volatile sub-bituminous coal, rubber crumb, wood chips and many other combustible bulk materials. Explosion is a constant danger with any combustible dust material, so these fires must be approached with proven techniques and great caution. Without experience fighting these fires, a typical response is to apply water with a fire hose. This can stir up combustible dust causing a primary explosion. A chain reaction begins as that explosion shakes more dust from the silo and surrounding areas. Also, whenever a hot spot has been burning for a period of time, the consumed material creates a void that will eventually collapse, creating volatile dust and a high probability of explosion.

From the Thermal Imaging Camera picture, you can see the fire had spread through the entire width of the silo. After evaluating all of the images, it was decided to approach the fire from the top using a 1% solution of F-500 Encapsulator Agent with a 45° conical spray pattern to avoid stirring up the wood dust. The fire was extinguished.



Kenneth Cox, facility supervisor said he learned the importance of calling in professionals as soon as you need help. He stated, "The manner in which you guys arrived, assessed and attacked our silo fire was extremely impressive."

HCT manufactures F-500 Encapsulator Agent and offers courses in the proper handling and firefighting of all combustible dusts. HCT trains employees and local firefighters at the plant site. In the classroom, participants learn about combustible dust, equipment and techniques used for fighting these fires. In the field, the course teaches how to identify and locate hot spots and the proper assembly and use of piercing rods to extinguish silo or bunker fires.

The techniques taught by HCT follow the "Recommended Practice" of the PRB Coal Users' Group. This technique reduces the possibility of explosion and uses less solution, which often ruins the stored material and fouls the silo, blocking the flow of material out of the silo. Explosive dust is the greatest threat, so good housekeeping will go a long way towards preventing an event. In the case of a fire, a stream of water should never be used because it stirs up dust making the situation more hazardous.

HCT Products for Fighting Combustible Dust Fires

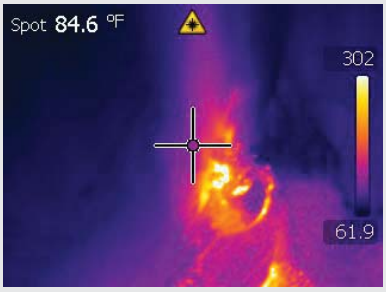
In addition to F-500 Encapsulator Agent, HCT also supplies all of the equipment necessary to safely complete the operation. Piercing rods are sold as complete systems with storage lockers or carts. The height of your tallest silo determines how many piercing rod sections you would need. In addition to wood fires, piercing rod technology is also excellent for coal, grain elevators, landfills, rubber crumb, cotton and hay bale fires.

Call Hazard Control Technologies to learn more about thermal imaging cameras, piercing rod systems, F-500 Encapsulator Agent and training programs.

HCT's Piercing Rod Systems

All the hardware necessary for fighting silo, bunker or stockpile fires is included in HCT's Piercing Rod Systems. The portable cart or storage locker contains a thermal imaging camera, Add-A-Section rods, piercing nozzle and lifting head, hose, eductor and wash-down nozzle.

Thermal Imaging Cameras



A thermal imaging camera is the key to locating hot spots and is included with each Piercing Rod System. The picture shows an actual hot spot image. Knowing the location of the hot spot will guide the piercing rod team as they insert the piercing rod.

F-500 Encapsulator Agent

F-500 Encapsulator Agent is the most unique firefighting agent available today. Where foam would simply form a layer on top of a combustible granular that would never extinguish a hot spot, F-500 EA penetrates deep into the granular. To extinguish the fire, F-500 EA rapidly cools - remove the heat; remove the fire. Then, F-500 EA encapsulates the granular, removing the fuel source. Finally, F-500 EA interrupts the free radical chain reaction, reducing smoke and toxins and eliminating scalding steam.

Bulk Storage Hazard Awareness Training

This course presents an awareness of the hazards associated with industrial combustible dusts and a clear understanding of combustible dust characteristics. The student is taught to identify, locate and safely mitigate hot spots in stock piles, bunkers and silos. This course is recommended for operations, management, emergency response teams and local fire departments.

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