

# Process Safety Beacon

http://www.aiche.org/ccps/safetybeacon.htm

**Messages for Manufacturing Personnel** 

Sponsored by CCPS Supporters

May 2005

# Storage Area Completely Destroyed



This accident investigated by and picture provided by the U.S. Chemical Safety and Hazard Investigation Board.

Visit their site at http://www.csb.gov

## Here's What Happened

A major fire destroyed this motor oil and automotive fluids blending, storage and packaging facility one evening after all regular employees had left. Because the facility was not designed to contain runoff and had no on-site fire fighting capabilities, such as a sprinkler system or fire hydrants, the civic authorities had no option but to let it burn. The nearest source of fire fighting water was more than a mile away.

The facility was totally destroyed. One business nearby was also destroyed and many homes were damaged. Approximately 900,000 gallons/3.4 megaliters of liquid waste and 2,500 cubic yards/1,900 cubic meters of contaminated soil and debris had to be removed for disposal. There were no injuries, but the company decided not to rebuild and 100 community jobs were lost.

### **How Did This Happen?**

Evidence of how the fire started was destroyed, but it is believed that a combustible liquid, perhaps on a rag, contacted a hot motor or light. After it started to burn, there were no protective systems in place to stop or control it, and the fire water supply was too far away for civic responders to use quickly.

Dikes surrounded the tank farm, but the walls were not liquid tight. As vessels failed, flaming liquid quickly spread involving other vessels. Because there was inadequate separation between the tank farm and warehouses, flames moved quickly from area to area.

The facility did not have any onsite fire detection systems and did not conform to any voluntary fire code standard.

#### What You Can Do

- Be aware that <u>combustible liquids are fire</u> <u>hazards</u> just as flammables are. They may be harder to ignite, but once started, they burn with spectacular results.
- Take care when handling combustible liquids. Be sure to use containers specifically designed to store or dispose of combustibles and their waste products, such as oily rags, which can easily ignite due to a wicking effect. Don't just throw them away like trash or leave them in the work area.
- Inspect your work area for fire hazards and protection systems. Make sure that fire suppression and control procedures are in-place and available. Pay particular attention to passive protection systems and look for cracks or holes in dikes and walls around storage tanks.
- Know what to do in a fire emergency. Know how to report the fire, how to use a fire extinguisher, and how to shut down equipment quickly. Know your escape route.

PSID Members see: Free Search--Tank fire

#### Combustible Liquids + Heat = Fire... and Eventual Job Loss

AIChE © 2005. All rights reserved. Reproduction for non-commercial, educational purposes is encouraged. However, reproduction for the purpose of resale by anyone other than CCPS is strictly prohibited. Contact us at ccps\_beacon@aiche.org or 212-591-7319