



Coffee Break Training - Fire Protection Series

Hazardous Materials: Spill Control for Aboveground Tanks

No. FP-2011-11 March 15, 2011

Learning Objective: The student shall be able to identify the requirements for normal venting for flammable and combustible liquid tanks.

Bulk flammable and combustible liquid storage facilities—often called “tank farms”—are susceptible to significant environmental damage in the event of a spill or fire. In order to prevent such damage, spill control and containment is required by the model fire codes.

In today’s photograph, one or more tanks are separated into containment areas by dikes: soil or other materials intended to keep spilled liquids in the vicinity of the failed tank. The model codes allow diking as one means to prevent accidental liquid discharge from endangering adjacent tanks, adjoining property, or reaching waterways. Drainage control, channeling liquids away from tanks, is another acceptable method.



This postincident photograph illustrates the importance of spill control around aboveground flammable and combustible liquid tanks.

The fire code official is authorized to alter or waive the requirements based on a technical report that demonstrates a tank or group of tanks does not constitute a hazard to other tanks, waterways, or adjacent property. The report should consider issues of topographical conditions, nature of the occupancy, proximity to buildings on the same or adjacent property, tank capacity, construction of the proposed tanks and characteristics of the product to be stored, and the nature and quantity of public and private fire protection resources.

If diking is employed, the volumetric capacity of the diked area must accommodate at least the greatest amount of liquid that could be released from the largest tank within the diked area. To account for displacement by other tanks, the capacity of the diked area enclosing more than one tank should be calculated by deducting the volume of the tanks other than the largest tank below the height of the dike.

Diked areas that contain two or more tanks should be subdivided in accordance with NFPA[®] 30, *Flammable and Combustible Liquids Code*.

For additional information, refer to NFPA[®] 30, *Flammable and Combustible Liquids Code*, Chapter 2, *International Fire Code*[®], Chapter 34, or NFPA[®] 1, *Uniform Fire Code*[®], Chapter 66.



Eligible for Continuing Education Units (CEUs)
at www.nfaonline.dhs.gov

For archived downloads, go to:
www.usfa.dhs.gov/nfa/coffee-break/