



Coffee Break Training - Fire Protection Series

Hazardous Materials: Containment Pallets

No. FP-2014-47 November 25, 2014

Learning Objective: The student will be able to explain the use of containment pallets as spill control and secondary containment alternatives.

Last week's Coffee Break Training explained the difference between spill control and secondary containment for liquid and solid hazardous materials. In some applications, **containment pallets** provide a suitable alternative to permanent construction.

Containment pallets are a portable alternative to spill control and secondary containment construction. Depending upon the design and manufacturer, they can be moved by some types of powered industrial trucks. (See Coffee Break Training FP-2006-39 for important safety warnings.) Depending upon the design and manufacturer, containment pallets may hold up to 10,000 pounds (4,536 kilograms) of solid or liquid materials.

Containment pallets may be constructed of low- or high-density polyethylene. Some include a drain plug to remove spilled liquids or accumulations of rainwater.

When used as an alternative to spill control and secondary containment for outdoor storage, containment pallets must:

- Have a liquid-tight sump accessible for visual inspection.
- Have a sump designed to contain not less than 66 gallons (250 liters).
- Be protected by a canopy or other structure to prevent collection of rainwater within the sump.
- Have exposed surfaces that are compatible with the material stored.

Chemical compatibility is important to safe storage. Polyethylene is susceptible to attack by some chemicals that may cause stress cracking, swelling, oxidation or may permeate the polyethylene. These reactions may reduce the physical strength of the containment pallet or deck, causing it to collapse and spill the hazardous material away from the containment feature.

It is also important to remember that most secondary containment products are designed to hold leaked chemicals for only a short time. Secondary containment units should be inspected regularly and cleaned of spilled materials. You should check with the pallet manufacturer to determine whether the materials to be stored are compatible with the pallet. One manufacturer has a lengthy list of incompatible materials.

For more information, consider enrolling in the National Fire Academy course "Hazardous Materials Code Enforcement" (R0615). Information and applications can be obtained at <http://apps.usfa.fema.gov/nfacourses/catalog/details/10504>.



This yellow polyethylene containment pallet with the black plastic deck is used for the outdoor storage of a corrosive hazardous liquid.

