Hazardous Chemical Control Is Turning Green

Art Stevens for Justrite Mfg.

A recent Google search revealed 290 million hits on “economy,” compared to 405 million on “environment.” Even a cursory review of the annual reports of publicly traded companies reveals goal after goal related to the environment. Why? Not only do both federal and state legislation incentivize these efforts, but also regulatory statements mandate compliance.

EPA

Certainly the level of awareness for the Environmental Protection Agency is high, and spill containment products have evolved from a green standpoint to address the demands of industrial users.

A spill containment pallet is used to store 55-gallon drums that contain hazardous liquids. This type of pallet is designed with a leak proof sump that captures leaks from a damaged drum or a spill that might occur when filling or pumping out of the drum. It therefore keeps the hazardous liquid from going down a factory floor drain, protecting against groundwater contamination and keeping our waterways clean.

This equipment assists a user of hazardous chemicals, or one temporarily storing hazardous waste on-site, to comply with relevant regulations.

UL Environment

In addition, users should be aware of other critical regulations to consider when specifying spill containment pallets for their facilities.

Most of us are familiar with Underwriters Laboratories (UL), which got its start in product safety over 115 years ago. But who is UL Environment? The new subsidiary was launched early in 2009 with a mission to encourage respect for and stewardship of our environment and meet the need for an independent trusted source for the validation of the claims. The UL Environment validation on a product adds a high level of confidence to customers that they are making a true green choice versus the many self-declared manufacturer claims that are surfacing in today’s growing green-conscious world. In addition to UL Environment, there are other organizations which validate green claims covering a variety of products.

SPCC Compliance

SPCC is short for Spill Prevention Control and Countermeasures. The rule was developed under the authority of The Federal Water Pollution Control Act and The Clean Water Act, and is designed to prevent oil pollution in US waterways. The SPCC Rule outlines the requirement of owners and operators of onshore facilities and offshore facilities to prepare and implement a Spill Prevention Control and

Countermeasures plan.

The SPCC Rule is mandated for facilities with 1,320 gallons of above ground storage or 42,000 gallons of buried storage of petroleum oils and non-petroleum oils, animal fats and oils and greases, and fish and marine mammal oils; and vegetable oils (including oils from seeds, nuts, fruits, and kernels).

The SPCC Rule outlines the requirement of an owner and operator to demonstrate in their SPCC plans considerations for secondary containment solutions for containers 55 gallons and larger. Each secondary containment shall be as follows:

- To hold the entire capacity of the largest container.
- To have sufficient freeboard to hold precipitation. Freeboard refers to the lowest point of over flow. Pallets that are sheltered do not require freeboard to hold precipitation.

Manufacturer Solutions

Manufacturers have been searching for ways to be even more helpful while enhancing international environmental objectives. As an example, Justrite Mfg. uses a “post industrial” recycled resin in molding spill control pallets, resulting in a “double good” hit for the environment. Not only do the pallets protect against groundwater contamination, but their material of construction offers another benefit to the environment. Post-industrial content is material that has been previously manufactured into products or resulted in scrap, and has been reclaimed for further use rather than being sent to the landfill. The recycled poly resin is purchased in large quantities from carefully selected and approved suppliers.

Both the resin and products have undergone an extensive review process and have obtained recycled content validation by a recognized third party auditor, UL Environment. This validation assures customers that a product that claims to be green, really is, and therefore has a positive impact on the environment. Why is the use of recycled resin good for the environment? Consider this: One ton of recycled plastic saves:

- 16.3 barrels of oil
- 5,774 kilowatt hours of electricity
- 30 cubic yds. of landfill space

A Summary Of Critical Regulations

Meets EPA 40 CFR 264.175 Containment.

1. Container storage areas must have a containment system that is designed

and operated in accordance with paragraph (b) of this section, except as otherwise provided by paragraph (c) of this section.
2. A containment system must be designed and operated as follows:
3. The containment system must have sufficient capacity to contain 10% of the volume of containers or the volume of the largest container, whichever is greater. Containers that do not contain free liquids need not be considered in this determination.

Meets NFPA 1, Fire Code, 2009 Edition*

60.3.2.10 Containment Pallets: Where used as a substitute for spill control and secondary containment for outdoor storage in accordance with 60.3.2.8.1, containment pallets shall comply with the following:

1. A liquid-tight sump accessible for visual inspection shall be provided.
2. The sump shall be designed to contain not less than 66 gallons (249.8L)
3. Exposed surfaces shall be compatible with materials stored,
4. Containment pallets shall be protected to prevent collection of rainwater within the sump.

International Fire Code, 2009 Edition**

2704.2.3. Containment pallets when used as an alternative to spill control and secondary containment for outdoor storage in accordance with the exception in Section 2704.2, containment pallets shall comply with all of the following:

1. A liquid-tight sump accessible for visual inspection shall be provided.
2. A sump shall be designed to contain not less than 66 gallons (250 L).
3. Exposed surfaces shall be compatible with material stored.
4. Containment pallets shall be protected to prevent collection of rain water within the sump.

OSHA 29 CFR 1910.106 (e)(2)(iii):

Separation and protection. Areas in which flammable or combustible liquids are transferred from one tank or container to another container shall be separated from other operations in the building by adequate distance or by construction having adequate fire resistance. Drainage or other means shall be provided to control spills. Adequate natural or mechanical ventilation shall be provided.

NFPA Code 30 – 2008 Edition:***

9.13.1 Storage areas shall be designed and operated to prevent the discharge of liquids to public waterways, public sewers, or adjoining property, unless such discharge has been specifically approved.9.13.2 Where individual containers exceed 10 gal (38L), curbs, scuppers, drains, or other suitable means shall be provided to prevent flow of liquids under emergency conditions into adjacent building

areas.9.13.3 Containment or drainage to an approved location shall be provided.