



Life Safety Division- Fire Marshal's Office

1130 Bluffs Parkway

Canton, Georgia, 30114

## **Cherokee County Fire Marshal's Bulletins**

Pallets are an important material handling tool for warehousing. However, *idle* pallets present a Significant fire hazard: they provide a source of dry fuel; their frayed edges are subject to easy ignition, and their open construction provides flue spaces through which fire can grow very hot and spread quickly. A pallet fire can severely test a sprinkler system's ability to contain the fire, and may result in severe damage to a building's structure and its contents.

While most pallets are made of wood, the durability, reusability, and recyclability of newer plastic pallets have spurred an increase in the number of plastic pallets in use. Plastic pallets have many advantages over wooden pallets, including the capacity to be customized for specific operations (e.g., pharmaceutical and food industries), but their greater flammability requires special attention to fire protection. During a fire, plastic pallets will release more heat, (approximately twice that of Wood), will burn for longer periods, and may melt and pool, contributing to rapid fire spread.

Before you consider a switch from wooden to plastic pallets, have your automatic sprinkler system evaluated by a qualified professional to determine if it will provide adequate protection for plastic pallets.

### **Recommended Storage Location for Idle Pallets**

Store pallets outside and away from the main building, or in a detached, low-value building. Storage of Pallets inside the will significantly impact sprinkler demand criteria. Example: If piled over six foot the Sprinkler criteria may be a design criteria of .45 gpm over 2,500 sq. ft. with a hose demand of 500 gpm or greater. Refer to *NFPA 13 Section 12.1 Standard for General Storage* for the recommended clearance



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between outside idle pallet storage and the main building.

### **Recommended Practices for Indoor Storage of Idle Pallets**

Eliminate or reduce the storage of idle combustible pallets. Limit the number of pallets on hand to the amount required for one day's operations. Prohibit storage of idle pallets in aisles or between racks. Store pallets flat and stack no higher than 6 feet; never stack them on end. Separate each pallet pile (no more than 4 stacks per pile) from other pallet piles by at least eight feet. Separate each pallet pile from other commodities by at least 25 feet. Eliminate storage of idle pallets in the racks.

### **Recommended Practices for Storage of Plastic Pallets**

Storage of plastic pallets outside is strongly recommended. See NFPA 13 Section 12.1 for protection Criteria for both inside and outside storage of plastic pallets.