



## Pallet Storage - *Outdoor / Indoor*

*Interpreted by 2013 California Fire Code (CFC) & Vernon City Code*



### **Outside storage** - CFC Chapter 3 & Vernon City Code

Outside storage of combustible materials (pallets) shall not be located within 10 feet of property line.

- *Maximum storage height is 15 feet with a 10 foot separation from the property line.*
- *Storage pile can be within 3 feet of property line if pile is reduced to 6 feet in height.*
- *The separation distance is allowed to be reduced when the fire chief determines that no hazard to the adjoining property exists.*
- *A fire permit is required if pallet units equal or exceed 240.*
- *Total aggregate content of 6,750 cubic feet cannot be exceeded. Aisle separation of 15 feet is required before the next pile or stack can be created.*
- *All pallets must be stacked so that there is visibility through the stacks to adjacent aisles.*
- *Aisles between and around open pallet stacks shall be at least 15 feet in width and maintained free from accumulated rubbish, equipment, or other articles or materials.*
- *When pallets are stored near a structure or awning, the height of the pallets cannot exceed the height of the structure or awning, or 15 feet, whichever is less.*

### **Inside Storage** - CFC Chapter 32, NFPA 13, and Vernon City Code

Idle pallets are a hazard in any facility. As such, inside storage is limited in the following configurations:

#### **Wood Pallets**

*Idle pallets are considered high-hazard commodities. When a building is protected with a conventional NFPA 13 sprinkler system (25-30 gpm p/ head):*

- *The maximum storage height is 6 feet.*
- *Pallet storage piles shall be a maximum of four stacks of idle wood pallets.*
- *Storage piles shall be separated by 8 feet of clear space, or separated by 25 feet when separated by commodity storage (or piles at the end of rack storage system/ground floor only).*
- *A fire permit is required if indoor pallet units equal or exceed 64.*

NFPA 13: 12.12.1.2.2

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## ***Inside Storage (continued)***

- When the building is protected with an (Early Suppression-Fast Response) ESFR sprinkler system (*100 gpm p/ head*), generally storage of idle wood pallets can be up to 25 feet in height (*this is a specialized sprinkler system that uses a larger diameter pipe to feed the ESFR heads; check the sprinkler system calculations to confirm*).

### **Plastic Pallets**

Idle plastic pallets provide an even higher challenge for firefighting than wood pallets. Plastic pallets are available that are used to UL Standard 2335. The listing by UL means that the plastic pallet provides no more of a fire load than a wooden pallet. If these pallets are the pallets used at a facility, than they should be regulated as wood pallets. However, there are many plastic pallets in use that are not listed. For these *unlisted plastic pallets*, there are several options on the method of protection for inside storage:

#### **Storage of Idle Plastic Pallets in a Sprinklered Building (*without the use of a cut-off room -pallet storage room*).**

- *The maximum storage height is 4 feet.*
- Maximum of two stacks of idle plastic pallets in each storage pile.
- Storage piles shall be separated by 8 feet of clear space, or separated by 25 feet when separated by commodity storage (or piles at the end of rack storage system/ground floor only).
- ESFR protection for a maximum storage height of 25 feet.

*NFPA 13: 12.12.2.2.2*

### **Cut-off Room for Pallet Storage**

Idle plastic pallets can be stored in a cut-off room. The cut-off room must be separated from the remainder of the building by a 3 hour fire-resistance rated fire barrier. The entire building must be protected by a sprinkler system and the sprinkler system within the cut-off room must provide a minimum density of 0.6 GPM over the entire area of the cut-off room. When a cut-off room is used, idle plastic pallets can be stored to a height of 12 feet.

**Note:** without a fire sprinkler system, *you are not allowed* to store any type of idle pallets inside a building!

For further assistance, please contact Vernon Fire Prevention.

*Vernon Fire Department / Bureau of Fire Prevention*