



## Benicia Fire Department – Fire Prevention Policies

**Subject: NFPA 4-4 STORAGE OF IDLE PALLETS -- INSIDE**

**Section: G**

**Effective Date:** April 2, 2009

**Standard G-702**

**Page:** 1 of 2

**Revised Date:** July 1, 2015

Idle pallet storage introduces a severe fire condition. Stacking idle pallets in piles is the best arrangement of combustibles to promote rapid spread of fire, heat release, and complete combustion. After pallets are used for a short time in warehouses, they dry out and edges become frayed and splintered. In this condition, they are subject to easy ignition from a small ignition source. Again, high piling increases considerably both the challenge to sprinklers and the probability of involving a large number of pallets when fire occurs.

Wood pallets or non-expanded polyethylene solid deck pallets.

4-4.1.1 Pallets, shall be preferably stored outside.

4-4.1.2 Pallets when stored indoors, shall be protected as indicated in Table 4-4.1.2. Sprinklers are required in buildings where these pallets are stored unless the following are met:

- a. Stored no higher than six (6) feet and
- b. Each pallet pile of no more than four stacks shall be separated from other pallet piles by at least 8 feet of clear space or 25 feet of commodity.

We do not encourage the storage of idle pallets inside any building, especially non-sprinklered buildings. This includes the storage under combustible overhangs without sprinklers. Dock storage to conform to indoor storage.

For other plastic pallets (other than noted in 4-4.1) refer to 4-4.2 NFPA 231.

A fire in stacks of idle plastic or wooden pallets is one of the greatest challenges to sprinklers. The undersides of the pallets create a dry area on which a fire can grow and expand to other dry or partially wet areas. This process of jumping to other dry, closely located, parallel, combustible surfaces continues until the fire bursts through the top of the stack. Once this happens, very little water is able to reach the base of the fire. The only practical method of stopping a fire in a large concentration of pallets with ceiling sprinklers is by a great amount of prewetting. In high stacks, this cannot be done without abnormally high water supplies. The storage of empty wood pallets should not be permitted in an unsprinklered warehouse containing other storage.



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Outside Storage – Storage of idle pallets outside of buildings, being either new or used, pallets shall comply with the following:

Stacks no higher than eight (8) feet with a storage area of no more than four stacks, see example:

Each pallet pile shall be separated from other pallet piles by at least eight (8) feet of completely clear space.

The clearance between outside idle pallet storage piles and buildings shall be ten (10) feet. This clearance is also for distances from all other combustibles and property lines.