

Title 153 - STATE FIRE MARSHAL

Chapter 18 - OUTDOOR STORAGE OF SCRAP RUBBER TIRES

001. Fire Experience of Scrap Rubber Tires. Fire experience in outdoor storage of scrap tires reveals a number of concerns, including: the generation of large amounts of black smoke, the fact that the storage is often too close to buildings on the same or adjacent premises causing fires in these exposed buildings, the generation of oil during the fire where the oil contributes to the fire or where the run-off will contaminate the surrounding area, delay in reporting the fire, and the lack of fire fighting capabilities. The fire hazards inherent in scrap rubber tire storage are best controlled by a positive fire prevention program which would include the intent that a fire would be contained to the pile of origin and limiting the exposures to other piles or associated structures.

002. Fire Prevention - General Requirements. This regulation applies to outdoor storage of scrap rubber tires where at least 50 scrap tires are stored.

The fire hazard potential inherent in scrap rubber tire storage operations can best be controlled by a positive fire prevention program. The method of stacking shall be solid piles in an orderly manner and shall include:

002.01. Fire lanes to separate piles and provide access for effective fire fighting operations.

002.02. Separation of yard storage from buildings and other exposures. Storage or handling of scrap tires shall not be located so as to seriously expose adjoining or adjacent properties in event of fire.

002.03. An effective fire prevention maintenance program including control of weeds, grass, and other combustible materials within the storage area. Weeds, grass and similar vegetation shall be eliminated throughout the entire yard. Combustibles shall be removed as they accumulate.

002.04. Smoking shall be prohibited within the tire storage area. Other types of potential ignition sources such as cutting and welding, heating devices, open fires, etc. shall be prohibited.

002.05. Suitable safeguards shall be provided to minimize the hazard of sparks from such equipment as refuse burners, boiler stacks, vehicle exhaust, etc.

002.06. The topography should be considered since in fire conditions, oil accumulations or runoff can be expected. Scrap tire storage shall be on a

level area.

003. Outdoor Storage of Used Tires. The storage of used scrap rubber tires shall comply with the following:

003.01. All outdoor storage of used tires shall be free from all trash and debris within the site.

003.02. The owners/operators of outdoor storage of used tires shall maintain controlled access to the property with only one entrance/exit, and shall install security lighting for use during evening and night time hours as designated by the State Fire Marshal.

003.03. All outdoor storage of used tires shall have a perimeter security chain link fence of a minimum height of six feet.

003.04. All storage of used tires, shredded or unshredded, shall be separated into individual piles on the property. No pile may exceed 50 feet by 50 feet by 12 feet in height.

003.05. In the absence of an available water supply of at least 500 GPM provided by fire hydrants within 1,000 feet of the facility, a minimum of a 10,000 gallon water supply on the site for exclusive use of fire fighting personnel shall be established.

003.06. Fire lanes shall be established and maintained having a minimum of forty-five foot lanes capable of supporting fire apparatus, and shall exist between all tire piles.

003.07. A minimum of a fifty foot wide zone around the site perimeter inside the fence line shall be maintained.

003.08. All storage piles shall have a minimum of a thirty inch high earthen dike around each tire pile as the piles are established.

003.09. A maximum of eighteen tire piles may be established on a single site.

003.10. No site may exceed the storage of more than three hundred thousand tires without the approval of the State Fire Marshal.

Exception: Where the requirements of 003.04, 003.05 or 003.09 cannot be met, Exposure Protection shall be provided as outlined in Section 004.

004. Alternative Method for the Storage of Scrap Tires.

004.01. Means of protecting buildings exposed by burning tire storage may be selected from NFPA 80A, Chapter 3; and separation adjustments may be based on building construction and protective measures as given in Table A, except that the separation should never be reduced below that necessary for fire fighting access.

Table A gives representative separations between exposed building and piles or between isolated piles.

Table A
Representative Exposure Separation Distances

		Tire Storage Pile Height						
		8	10	12	14	16	18	20
Exposed Face Dimensions	25	56	62	67	73	77	82	85
	50	75	84	93	100	107	113	118
	100	100	116	128	137	146	155	164
	150	117	135	149	164	178	189	198
	200	130	149	167	183	198	212	226
	250	140	162	181	198	216	231	245

004.02. Because of the extensive fire potential expected in scrap tire storage, some form of exposure protection for adjoining properties should be considered. If the clear space as recommended in Table A cannot be provided, provide a dirt berm 1½ times the height of the tire storage.

004.03. Maximum pile height shall be 20 feet. Pile width and length shall not exceed 250 feet without a separation according to Table A. Dirt berms may be used in lieu of cross aisles in accordance with 004.02. See Figure B.

004.04. The fire department shall be consulted for advice on provision of all-weather roadways to and within the storage area. Depending on storage area configuration and size, access obstruction (river, railroad yards), prevailing and wind direction, alternative tactics, etc., fire fighting strategy may require one or more aisles to be wider than those described in Figure B.

004.05. Pre-emergency planning shall be made with the local fire

protection agency so that fire emergencies can be properly handled in the tire storage facility.

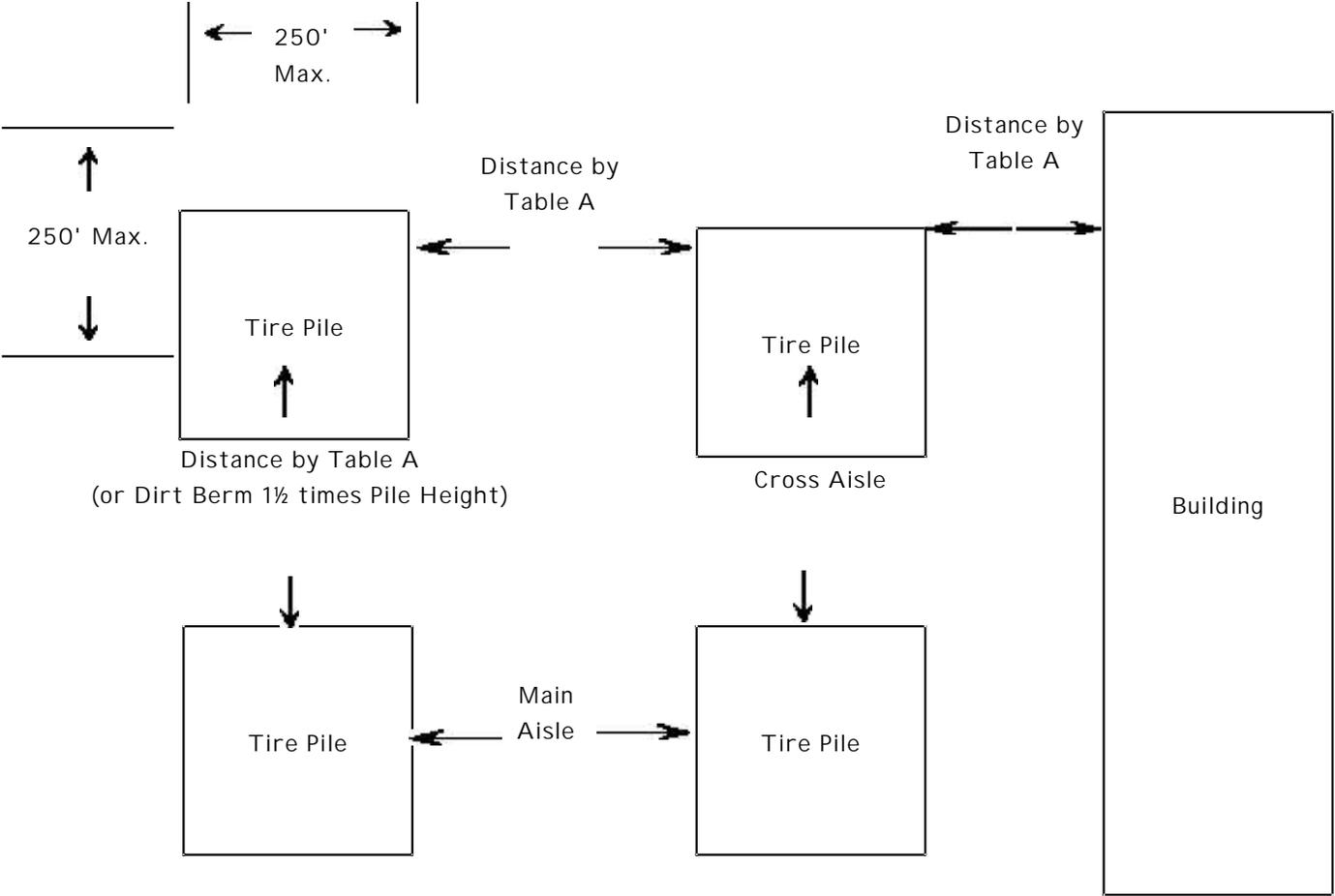


Figure B