

Chapter E 163

BUILDINGS CONTAINING BALED
FLAMMABLE MATERIALS

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Note: It has been found that lightning flashes occurring in the immediate vicinity of cotton or other fibrous materials of a flammable nature baled with metal ties may cause secondary discharges between the ties of sufficient intensity to cause ignition. To prevent fires of this type a greater degree of shielding is required than is afforded by the ordinary system of lightning rods. The required condition is inherent or readily realized in all-metal or metal-covered buildings, but in the case of other types made of non-conducting materials the nearest practicable approach to the necessary degree of shielding is found in a grounded network of sufficiently small mesh covering the roof. It has been found experimentally that the shielding effect of a network of given mesh increases with the height above the shielded object, also that the shielding effect decreases as the size of the mesh is increased. A mesh of 6 feet is a fair mean value if placed on or a few feet above the roof.

E 163.01 Methods and materials. The materials, equipment and ground connections required by the rules of this chapter shall comply with the requirements of chapters E 161 and E 162.

History: Cr. Register, April, 1964, No. 100, eff. 5-1-64.

E 163.02 Metal-roofed and metal-clad buildings. Metal-roofed and metal-clad buildings shall be treated in the same manner as required in chapter E 161, section E 161.05.

History: Cr. Register, April, 1964, No. 100, eff. 5-1-64.

E 163.03 Buildings of non-conducting materials. The effect of an electrostatic shield may be obtained by constructing on or above the roof a network of wires or cables and grounding it about the perimeter at the same intervals as required for metal-roofed buildings.

History: Cr. Register, April, 1964, No. 100, eff. 5-1-64.