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STATE OF WISCONSIN)
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DEPARTMENT OF INDUSTRY,)
LABOR AND HUMAN RELATIONS)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Joseph N. Noll, Secretary of the Department of Industry, Labor and Human Relations, and custodian of the official records of said department, do hereby certify that the attached rules to Wisconsin Administrative Code chapters Ind 50-64--Building and Heating, Ventilating and Air Conditioning Code, were adopted by this department on March 30, 1979.

I further certify that said copy has been compared by me with the original on file in this department and that the same is a true copy thereof and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the department at the Capitol, in the City of Madison, this 30 day of March, A.D., 1979.

Joseph N. Noll

Joseph N. Noll, Secretary

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ORDER OF

DEPARTMENT OF INDUSTRY, LABOR AND HUMAN RELATIONS

Pursuant to authority vested in the Department of Industry, Labor and Human Relations by sections 101.01 to 101.211, Wis. Stats., the Department of Industry, Labor and Human Relations hereby creates and adopts rules of Wisconsin Administrative Code Chapters Ind 50-64--Building and Heating, Ventilating and Air Conditioning Code.

The rules attached hereto shall become effective on the first day of the month following publication in the Wisconsin Administrative Register, as provided in section 227.026, Wis. Stats.

Section Ind 51.06 is created to read:

Ind 51.06 FOAM PLASTICS.

- (1) Scope. The requirements of this section shall apply to the use of foam plastics in building construction.
- (2) Definitions. (a) Approved diversified tests. Approved diversified tests mean fire tests which evaluate materials or construction assemblies representative of actual end use applications.

Note: Approved diversified tests may include, but are not limited to, ASTM E84 (tunnel test), ASTM E119 "fire test," full-scale corner test, enclosed room-corner test and ignition temperature tests.

- (b) Foam plastic. For purposes of this code, foam plastic is a manufactured organic material used as a building construction element, decorative finish material, trim, insulation or sound-absorbing material.
- (3) General. (a) All foam plastic, except as otherwise noted, shall have a flame spread rating of not more than 75 and a smoke developed rating of not more than 450 when tested in accordance with ASTM E84. Foam plastic tested at a thickness of 4 inches or more and meeting these requirements may be used in thicknesses up to 10 inches. Foam plastic tested at a thickness of less than 4 inches and meeting these requirements may be used in thicknesses up to 4 inches.
 - (b) Unless otherwise specifically approved in accordance with section Ind 51.06 (4), foam plastic shall be limited to the following applications:
 1. Within the cavity or core of a masonry or concrete wall or encased within a floor or roof deck system of concrete, regardless of the class of construction.
 2. On the room side of walls, ceilings or roofs provided the foam plastic is fully protected from the interior of the building, including unoccupied spaces above suspended ceilings, by an approved thermal barrier having a minimum rating of 15 minutes. The thermal barrier shall be installed so that under the same fire-test conditions, it will remain in place for 15 minutes. Crawl space walls may be insulated with unprotected foam plastic provided the flooring consists of at least 3/4-inch tongue and groove plywood sheathing, or equivalent, and the space is not used for air handling purposes.

Note: The department will accept 1/2-inch fire-rated wallboard or other approved materials having 15-minute finish rating as determined by ASTM E119 "fire test."
 3. Within the cavity, or as an element, of an NC-0 or 0-hourly rated system provided the thermal protection specified in 2. is applied.
 4. Within the cavity, or as an element, of an hourly rated system provided such system or assembly meets the requirements of section Ind 51.04 for the time-rated construction.

5. As part of a class A, B or C roof covering satisfying the requirements of section Ind 51.050. The smoke-developed requirement is waived for roofing insulation applied to the exterior side of the roof deck.
6. Refrigerated facilities. Foam plastic insulation used as a building element for freezer buildings, cold storage facilities, refrigerated food-processing rooms and other similar unheated, low-population density uses, may be used without a thermal barrier provided the foam plastic is covered on both sides by not less than 0.032-inch aluminum, no. 26 gauge corrosion-resistant steel, or equivalent, and the building and foam plastic panel is protected by an approved automatic sprinkler system.

- a. Exception. The approved automatic sprinkler system may be omitted, except as otherwise required by other sections of this code, when thermosetting foam plastic having a flame-spread rating of 25 or less is used.
- b. Exception. Walls may be covered with 3/32-inch fiber reinforced plastic panels in wet food-processing areas provided the fiber reinforced plastic material has a flame spread of 175 or less.

Note: Wet food-processing areas, as specified in this section, need not be provided with approved automatic sprinkler systems provided the foam plastic core material satisfies the requirements of section Ind 51.06 (3) (b) 6. a.

- c. Exception. The requirements of this section do not apply to free-standing cooler-freezer equipment not exceeding 5,000 square feet in floor area in one-story buildings.

Note: Free-standing equipment may not rely on the enclosing building for lateral or vertical support except for the floor load.

7. Metal-clad sandwich panels consisting of a covering of 0.032-inch aluminum or no. 26 gauge corrosion-resistant steel on both sides, with a foam plastic core not more than 4 inches in thickness with a flame spread of 25 or less, may be used where NC-0 hour rated construction is permitted. An approved thermal barrier is not required provided the building and the foam plastic panel is protected by an approved automatic sprinkler system.
8. Doors. Foam plastic may be used on interior and exterior doors provided the foam plastic is covered by not less than 0.032-inch aluminum or no. 26 gauge corrosion-resistant steel. Hourly rated doors shall meet the requirements of section Ind 51.047.
9. Trim and decorative finish materials. Foam plastic used for decorative finish material, trim or molding shall be limited to 10% of the surface area within any 100 lineal feet of interior walls and ceilings.
10. Bulk vegetable storage. Buildings used exclusively for the bulk storage of vegetables shall have the foam plastic insulation protected on both sides with 5/8-inch exterior grade plywood, or equivalent.

- (4) Specific approval. Foam plastic not meeting the requirements of Ind 51.06 (3) may be approved by the department for specific application based on the submittal and written acceptance of data from approved diversified tests (see section Ind 50.19).