

# INDUSTRIAL COMMISSION OF WISCONSIN

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## AMENDMENTS TO STATE BUILDING CODE

The following are amendments to the Building Code which have been made since the 1920 edition was issued:

Amendments effective December 6, 1920.

*Insert after first paragraph in Order 5100 a paragraph as follows:* Floor panels may be built of approved metal (see Order 5316), designed to resist all stresses independent of any protective covering, protected on the upper and lower sides. Steel lumber joists shall not be spaced more than 24 inches center to center well bridged with proper tension strips. Upper slab shall be reinforced concrete not less than 2 inches thick over all structural metal. Expanded metal or metal lath of proper weight and rigidity to span the joist spacing, well fastened to joists, may be used for reinforcement, but no metal less than 24 gauge shall be used. Lower side of joists shall be protected by not less than  $\frac{1}{4}$  inch cement plaster on expanded metal or metal lath. The upper slab and plastered ceiling shall create air spaces between the metal floor supports completely isolated from the open atmosphere. All beams and girders supporting the floor panels shall be fully protected. Connections of metal joists to beams, girders, and other bearings shall be in a manner approved by the Industrial Commission. All steel lumber joists shall receive a protective coat of lead and oil or bituminous paint before being placed in position. Metal lumber shall not be used in floor panels having less than 3 feet of well ventilated air space below or in floor panels over damp basements.

*Note.*—Expanded metal or metal lath weighing not less than  $3\frac{3}{4}$  lbs. per square yard should be considered the minimum for joist spacing of  $23\frac{1}{2}$  inches, and  $2\frac{3}{4}$  lbs. per square yard for joists spacing of  $15\frac{3}{4}$  inches.

**New Order.**

**Order 5100-A. Protected Construction—Steel Lumber Floor Panels.**

Floor panels will be considered of protected construction if built of approved metal (see Order 5316) designed to resist all stresses independent of any protective covering, and protected on the upper and lower sides. Steel lumber joists shall not be spaced more than 24 inches center to center, well bridged with proper tension strips. Upper slab shall be reinforced concrete not less than 2 inches thick over all structural metal. Expanded metal or metal lath of proper weight and rigidity to span the joist spacing, well fastened to joists, may be used for reinforcement, but no metal less than 24 gauge shall be used. Lower side of joists and structural supports shall be protected by not less than  $\frac{1}{4}$  inch cement plaster on expanded metal or metal lath. The upper slab and plastered ceiling shall create air spaces between the metal floor supports completely isolated from the open atmosphere.

Connections of metal joists to beams, girders and other bearings shall be in a manner approved by the Industrial Commission.

All columns supporting floor panels of protected construction shall be protected as in Order 5100. The lower flanges of structural members other than metal joists shall be kept away 1 inch from ceiling plaster with metal furring. The metal of beams, girders and joists between the upper slab and plastered ceiling of floor construction need not be covered.

All steel lumber floor joists shall receive a protective coat of oil and lead or bituminous paint before being placed in position.

Metal lumber shall not be used in floor panels having less than three feet of well ventilated air space below or in floor panels over damp basements.

**New Order.**

**Order 5100-B. Protected Construction—Steel Lumber Partitions.**

Partitions will be considered of protected construction if built of approved metal (see Order 5316) designed to resist all stresses independent of any protective covering, and protected on both sides with metal lath and not less than  $\frac{3}{4}$  inch of cement or gypsum plaster. The covering of metal lath and plaster shall create air spaces between the metal completely isolated from the open atmosphere.

Where steel lumber is used in bearing partitions approved connection must be made with proper top and bottom bearings.

All steel lumber shall receive a protective coat of oil and lead or bituminous paint before being placed in position.

**Order 5240.** *Add at end of second paragraph as follows:* except that the floors of garages not more than 3 stories in height may have floor panels of protected construction. See Order 5100-A.

**Order 5603.** *Add at the end of first sentence as follows:* except that floor panels and non-bearing partitions may be of protected construction. See Orders 5100-A and 5100-B.

**Order 5702.** *Add at end of first sentence as follows:* except that hotels and apartment houses not more than 4 stories in height may have floor panels and non-bearing partitions of protected construction. See Orders 5100-A and 5100-B.

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*Add at end of last sentence as follows:* except that hospitals not more than three stories in height may have floor panels and non-bearing partitions of protected construction. See Orders 5100-A and 5100-B.

**Order 5705.** *Add at end of first sentence as follows:* except that in buildings not more than three stories in height floor panels may be of protected construction. See Order 5100-A.