## Section 1209 Access to Unoccupied Spaces (Building Code).

1209.3 Mechanical appliances. Access to mechanical appliances installed in under-floor areas, in attic spaces and on roofs or elevated structures shall be in accordance with the International Mechanical Code.

**1209.3 Mechanical equipment and appliance access.** Access to mechanical equipment and appliances installed in underfloor areas, in attic spaces, and on roofs or elevated structures shall be in accordance with this section and the Minnesota Mechanical Code.

**1209.3.1 Mechanical equipment and appliances on roofs or elevated structures.** Where mechanical equipment or appliances requiring periodic inspection, service, or maintenance are installed on roofs or elevated structures, a permanent stair shall be provided for access.

**Exception:** A portable ladder may be used for dwellings, replacement equipment and appliances on existing buildings, and exterior roof access points not exceeding 16 feet (4.9 m) above grade, unless the building official determines that the unique shape of the roof does not allow safe access with a portable ladder.

The permanent stair shall, at a minimum, meet the following:

 The stair shall be installed at an angle of not more than 60 degrees measured from the horizontal plane;

- 2. The stair shall have flat treads at least 6 inches (152 mm) deep and a clear width of at least 18 inches (457 mm) with equally spaced risers at least 10.5 inches (267 mm) high and not exceeding 14 inches (356 mm);
- 3. The stair shall have intermediate landings not exceeding 18 feet 95.5 m) vertically;
- 4. The stair shall be installed with continuous handrails on both sides of the stair;
- 5. Interior stairs shall terminate at the underside of the roof at a hatch or scuttle of at least 8 square feet (0.74 m<sup>2</sup>) with a minimum dimension of 20 inches (508 mm);
- 6. When a roof access hatch or scuttle is located within ten feet (3.0 m) of a roof edge, a guard shall be installed in accordance with this code.
- 7. Exterior stairs shall terminate at the roof access point or at a level landing of at least 8 square feet (0.74 m²) with a minimum dimension of 20 inches (508 mm). The landing shall have a guard installed in accordance with IMC Section 304.9.
  - **1209.3.1.1 Permanent ladders.** Where a change in roof elevation greater than 30 inches (762 mm) but not exceeding 16 feet (4.9 m) exists, a permanent ladder shall be provided. The ladder may be vertical. The ladder shall, at a minimum, meet the following:
  - 1. Width shall be at least 16 inches (406 mm).

- 2. Rung spacing shall be a maximum of 14 inches (356 mm).
- 3. Toe space shall be at least 6 inches (152 mm).
- 4. Side railings shall extend at least 30 inches (762 mm) above the roof or parapet wall.