

Youth Camp Screen, Window and Mechanical Ventilation Requirements

Indiana State Department of Health Youth Camp Rule, 410 IAC 6-7.2 Section 29(c) Buildings and sleeping shelters, requires: *Buildings used for sleeping shall have screened openable windows or mechanical ventilation as required by 675 IAC 14-4.3-1.* The following information from 675 IAC 14-4.3-1 is used to determine the openable window area and screen requirements of rooms in a youth camp.

Rule 675 IAC 14 - 4.3-1 adopts the *2003 International Residential Code for One and Two Family Dwellings, fifth printing*, and Chapter 43 of the *2006 International Residential Code for One and Two Family Dwellings*, by reference.

In 675 IAC 14-4.3-1 *Indiana Residential Code* the relevant section is **675 IAC 14-4.3-21 Section R303.1; habitable rooms**. This section makes minor changes to **Section R303.1; habitable rooms** of the *International Residential Code for One and Two Family Dwellings*. The *International Residential Code* with the changes required by the *Indiana Residential Code*, in bold, reads as follows:

SECTION R303 LIGHT, VENTILATION AND HEATING

R303.1 Habitable rooms. All habitable rooms shall have an aggregate glazing area of not less than 8 percent of the floor area of such rooms. Natural *ventilation* shall be through windows, doors, louvers or other *approved* openings to the outdoor air. **Ventilation openings shall be readily accessible and operable**. The minimum openable area to the outdoors shall be 4 percent of the floor area being ventilated.

Exceptions:

1. The glazed areas need not be openable where the opening is not required by Section R310 and an *approved* mechanical *ventilation* system capable of producing 0.35 air change per hour in the room is installed or a whole-house mechanical *ventilation* system is installed capable of supplying outdoor *ventilation* air of 15 cubic feet per minute (cfm) (78 L/s) per occupant computed on the basis of two occupants for the first bedroom and one occupant for each additional bedroom.
2. The glazed areas need not be installed in rooms where Exception 1 above is satisfied and artificial light is provided capable of producing an average illumination of 6 footcandles (65 lux) over the area of the room at a height of 30 inches (762 mm) above the floor level.
3. Use of sunroom additions and patio covers, as defined in Section R202, shall be permitted for natural ventilation if in excess of 40 percent of the exterior sunroom walls are open, or are enclosed only by insect screening.

As noted above, exception 1 of Section R303 references Section R310. The following is from Section R310 of the *2003 International Residential Code for One and Two Family Dwellings*, with the changes required by the *Indiana Residential Code* in bold:

Section R310 - Emergency Escape and Rescue Openings

R310.1 Every sleeping room shall have at least one openable emergency escape and rescue opening that opens directly to the exterior. Where emergency escape and rescue openings are provided they shall have a sill height of not more than 44 inches (1118 mm) above the floor. Where a door opening having a threshold below the adjacent ground elevation serves as an emergency escape and rescue opening and is provided with a bulkhead enclosure, the bulkhead enclosure shall comply with Section 310.3. The net clear opening dimensions required by this section shall be obtained by the normal operation of the emergency escape and rescue opening from the inside. Emergency escape and rescue openings with a finished sill height below the adjacent ground elevation shall be provided with a window well in accordance with Section R310.2.

R310.1.1 Minimum opening area. Every sleeping room shall have at least one openable emergency escape and rescue opening that opens directly to the exterior.

R310.1.2 Minimum opening height. The minimum net clear opening height shall be **22 inches (559 mm)**.

R310.1.3 Minimum opening width. The minimum net clear opening width shall be 20 inches (508mm).

R310.1.4 Operational constraints. Emergency escape and rescue openings shall be operational from the inside of the room without the use of keys or tools.

R310.1.5 Sleeping room replacement window alterations. When replacing existing sleeping room windows, at least one of the replacement windows within that sleeping room shall comply with Section R310.5. Replacement windows that do not meet the current emergency escape requirements of Section R310, without structural alterations to the dwelling, may be installed as long as they meet the following requirements.

1. Replacement window installation shall not reduce the existing net clear opening by more than 6 inches horizontally and 6 inches vertically, except that awning replacement windows shall not reduce the existing net clear opening by more than 3 inches vertically.

2. In no case shall the replacement window net clear opening height be less than 22 inches (559 mm) and the net clear opening width be less than 20 inches (508 mm).

3. Double hung or sliding replacement windows shall have both sashes removable without the use of a key or tool. Single hung installations are not allowed by this section.

4. Casement and awning replacement windows may obtain the required net clear opening with the use of egress hardware.

5. If the replacement window cannot meet the minimum requirements listed in subdivisions 1, 2, 3, and 4, the existing window shall be replaced with a like window without reducing the existing net clear opening.

R310.2 Window wells. The minimum horizontal area of the window well shall be 9 ft² (0.84 m²), with a minimum horizontal projection and width of 36 inches (914 mm). The area of the window well shall allow the emergency escape and rescue opening to be fully opened.

Exception: The ladder or steps required by Section R310.2.1 shall be permitted to encroach a maximum of 6 inches (152 mm) into the required dimensions of the window well.

R310.2.1 Ladder and steps. Window wells with a vertical depth greater than 44 inches (1118 mm) shall be equipped with a permanently affixed ladder or steps usable with the window in the fully open position. Ladders or steps required by this section shall not be required to comply with sections R311.5 and R311.6. Ladders or rungs shall have an inside width of at least 12 inches (305 mm), shall project at least 3 inches (76mm) from the wall and shall be spaced not more than 18 inches (457 mm) on center vertically for the full height of the window well.

R310.3 Bulkhead enclosures. Bulkhead enclosures shall provide direct access to the basement. The bulkhead enclosure with the door panels in the fully open position shall provide the minimum net clear opening required by Section R310.1.1. Bulkhead enclosures shall also comply with Section R311.5.8.2.

R310.3.1 Door swing. In areas subject to snow or ice accumulation, doors installed at the bottom of bulkhead enclosures to basements that serve as escape and rescue openings shall swing into the structure.

R310.4 Bars, grills, covers and screens. Bars, grills, covers, screens or similar devices are permitted to be placed over emergency escape and rescue openings, bulkhead enclosures, or window wells that serve such openings, provided the minimum net clear opening size complies with Sections R310.1.1 to R310.1.3, and such devices shall be releasable or removable from the inside without the use of a key, tool or force greater than that which is required for normal operation of the escape and rescue opening.

R310.5 Emergency escape windows under decks and porches. Emergency escape windows are allowed to be installed under decks and porches provided the location of the deck or porch allows an unobstructed passageway, not less than 30 inches (762 mm) high, 30 inches (762 mm) wide and not more than 20 feet (6.1 m) in length, to a yard or court.