

CHAPTER 4 FOUNDATIONS

SECTION R408.3 IRC Interpretation No. 48-07 2006 Edition Issued: 12-07-2007 RE_06_64_07

R314.5.4 Crawl spaces. The thermal barrier specified in Section R314.4 is not required where crawlspace access is required by Section R408.4 and where entry is made only for service of utilities and the foam plastic insulation is protected against ignition using one of the following ignition barrier materials:

1. 1.5-inch-thick (38 mm) mineral fiber insulation;
2. 0.25-inch-thick (6.4 mm) wood structural panels;
3. 0.375-inch (9.5 mm) particleboard;
4. 0.25-inch (6.4 mm) hardboard;
5. 0.375-inch (9.5 mm) gypsum board; or
6. Corrosion-resistant steel having a base metal thickness of 0.016 inch (0.41 mm).

The above ignition barrier is not required where the foam plastic insulation has been tested in accordance with Section R314.6.

REFERENCED SECTION:

R408.3 Unvented crawl space. Ventilation openings in under-floor spaces specified in Sections R408.1 and R408.2 shall not be required where:

1. Exposed earth is covered with a continuous vapor retarder. Joints of the vapor retarder shall overlap by 6 inches (152 mm) and shall be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (152 mm) up the stem wall and shall be attached and sealed to the stem wall; and
2. One of the following is provided for the under-floor space:
 - 2.1. Continuously operated mechanical exhaust ventilation at a rate equal to 1 cfm (0.47 L/s) for each 50 ft² (4.7 m²) of crawlspace floor area, including an air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.8;
 - 2.2. Conditioned air supply sized to deliver at a rate equal to 1 cfm (0.47 L/s) for each 50 ft² (4.7 m²) of under-floor area, including a return air pathway to the common area (such as a duct or transfer grille), and perimeter walls insulated in accordance with Section N1102.2.8;
 - 2.3. Plenum complying with Section M1601.4, if under-floor space is used as a plenum.



Q: Where foam plastic insulation is exposed within an unvented crawl space and entry into the crawl space is only for servicing of utilities, is the use of an ignition barrier, in accordance with the provisions of Section R314.5.4 of the *International Residential Code*, permitted for all the air flow methods described in Section R408.3 for unvented crawl spaces?

A: Yes. When an unvented crawl space is not used for any type of storage and contains only utility equipment, such as mechanical equipment, exhaust fans, plumbing equipment, electric furnaces, or wiring, an ignition barrier is permitted to be used in lieu of a full thermal barrier. Although “air” from the “unvented crawl space” communicates with “air” from the “living area”, the provisions of Section R314.5.4 are still applicable. The provisions of Section 314.5 and Section 314.5.4 are intended to provide protection for the foam plastic insulation from exposure to fire. The reduced protection of the foam plastic insulation provided by an ignition barrier is justified because there is a lower probability for exposure of the foam plastic to fire in an unvented crawl space with limited access.