

The Energy Corner

Unvented Roof Amendment Adopted by Board

In response to an increasing number of cases, the Board voted at its February meeting to allow unvented roof systems under limited circumstances. Although this amendment, like any other, does not become official until it has gone through the final review by the Secretary of State's office, the Board did vote favorably on its technical merits.

The change will affect two identical sections of the code: 780CMR 1210.1 ("Ventilation of Special Spaces, Roof Spaces") and 780CMR 3608.6.1 ("Roof Ventilation"). The new sections will read as follows, with the amended language underlined:

Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roofs rafters, shall have cross ventilation for each separate space by ventilation openings that are protected against the entrance of rain and snow. The openings shall be covered with corrosion-resistant mesh not less than 1/4-inch (6mm) nor more than 1/2-inch (13mm) in any direction.

Exception 1: Roof assemblies where an expanding spray foam insulation material providing at least 40% of the total R-value of the required insulation, is in direct contact with the underside of the roof deck and adjacent framing members. If the permeability of the foam material is less than 2 perm-inch, no vapor barrier is necessary.

Exception 2: Roof assemblies where a board foam plastic insulation material providing at least 40% of the total R-value of the required insulation is placed on top of the roof deck. If the permeability of the foam material is less than 2 perm-inch no vapor barrier is necessary.

When either of the: above exceptions is taken, the following conditions must also be satisfied:

1. The roof assembly, including the wall-to-eave-to-roof deck connection, must be made air-tight per 780CMR J4.3.3 or 780CMR 1304.3 as applicable.
2. Thermal barrier requirements, if any, shall be per 780CMR 2603.4 as applicable.
3. The roof assembly must meet the fireresistance rating requirements of 780CMR-when and as applicable.
4. Roofing material must be listed/warranted by its manufacturer for use in an Unvented roof system.

Also, Section J4.2.1 ("Vapor Retarder") was amended to include a second exception:

Exception 1: In construction where moisture or its freezing will not damage the materials or adversely affect the performance of the insulation.

Exception 2: As allowed in 780 CMR 3608.6.1.