

UPDATE

International Residential Building Code Adopts Pretreat Requirements Nationwide and Bans Foamboard Below Grade in Certain Areas

The International Code Council (ICC) formally adopted the International Residential Code (IRC) last year and recently the IRC was released for distribution. In the code, the requirements for pretreatments were clarified.

The International Code Council is composed of the regional model building code bodies and sets model codes for the nation. The International Residential Code is the code that covers minimum standards for residential construction.

When a code is released under the International Code Council, it does not have the force of federal law. Rather, each state and in some states, counties or municipalities may adopt the code as is or may adopt the code with changes. Generally, the states adopt the building code as is.

The International Code Council included two very important provisions which affect termite control in its International Residential Code 2000.

Are Pretreats Required?

First, the code specifies that "in areas favorable to termite damage" as shown on a map written into the code, there must be methods of protection either by pretreat, pressure treated wood, termite-resistant wood or physical barriers or any combination.

In February, 2000, NPMA reported through a Library Update that there are builders who are attempting to avoid pretreats or any type of termite protection. Since the hotbed of this activity was the Midwest, the builders assumed that there are no requirements and that termite pressure is inadequate to require considerations about termites when building structures. The International Residential Code has addressed that issue by clarifying the issue.

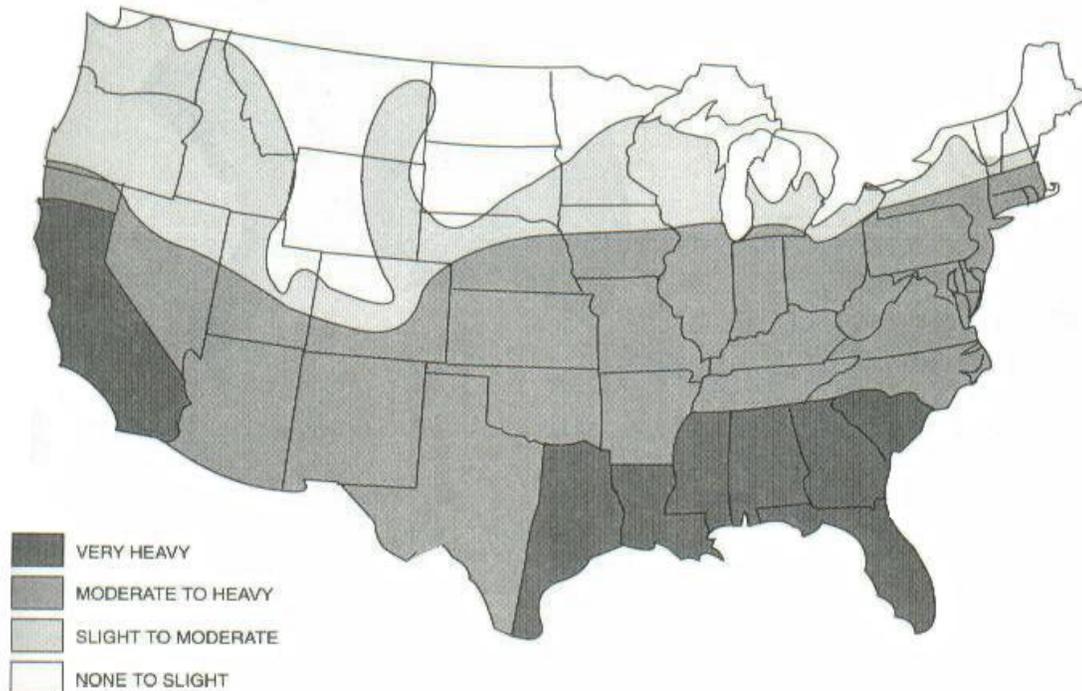
The International Residential Code map (see map below) incorporated by reference shows that the areas favorable to infestation thus requiring termite prevention measures. The map in the code excluded Hawaii and this will be included in the next code printing. Hawaii is considered to have very heavy termite infestation. Alaska was left off of the code map as well and will be added next cycle; however, Alaska is considered to have none to slight infestation.



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The map was developed by the US Forest Service in the Home and Garden Bulletin 64 *Subterranean Termites—Their Prevention and Control in Buildings*.



What this means to PMPs

While there was confusion before the code bodies merged and formed the International Code Council (see Library Update, February, 2000), there should be no confusion about the areas requiring termite prevention/pre-treats. The Termite Infestation Probability Map from the building code included in the code is reprinted here for future reference (see map above). In all shaded areas of the map, termite prevention/pre-treats are required by the model code. In areas unshaded (probability of none to slight infestation) the local code officials will determine whether termite prevention/pre-treats are required.

PMPs should use this Library Update to show lenders, builders, architects, and other decision makers that protection against termites is required by code in nearly all of the continental US.

Beyond the code, the EPA labels on termite control products permit the use of baits and borates for new construction and provided the labels are followed and are being permitted by code officials. There have been questions from some technical experts for the code bodies as to whether the EPA label is adequate for guidance for PMPs for the use of baits for new construction; however, the label is sufficiently clear and local code officials should not force supplementary requirements. Some state regulatory agencies have specific requirements due to local needs but this is not a code issue but rather a state lead agency decision.

Physical barriers of organic material (plastic or composite film) and stainless steel mesh are acceptable as a barrier for new construction provided that the code bodies have approved the use through the National Evaluation Service or the Southern Building Code Congress Evaluation Service.

Use of Foam Insulation

In October 1999, NPMA reported that the ICC has adopted restrictions on the use of foamboard below grade. This comes after years of work including ASPCRO, Clemson researchers, the foam plastic industry, and NPMA. NPMA and the trade organization co-chaired a committee to recommend language for the code, protocols for testing of foamboard protection, and to establish technologies to prevent infestation of foamboard.

Insurers of pest control companies have long expressed concern about foam insulation below grade. Data exists which shows that in areas of very heavy infestation, there should be a ban on foamboard installed below grade. EIFS manufacturers in 1996 specified that foamboard for their installations cannot be installed below grade.

Protection of foamboard to be installed below grade and the structure has been a major issue. If the foamboard can be protected and structure can also be protected, then the foamboard could be installed below grade and there will be gains in energy efficiency, as the foamboard will act as a better insulator. Currently, there are products being tested but there are no clear results other than stainless steel mesh that will protect the foamboard and the structure. Borates added to the foamboard at the factory currently have insufficient public data to show that the foamboard is protected.

The code language is very specific in that it generally bans the use of foamboard below grade in areas of very heavy termite infestation. It should be noted that the foamboard ban is for areas of very heavy termite infestation only and is not nationwide due to lack of availability of nationwide data for infestation of foamboard.

How PMPs should use the foamboard information

PMPs, when confronted with foamboard below grade in new construction should be very cautious about issuing any warranty on the structure. The building code body has banned the material in areas of very heavy infestation and this should be called to the attention of builders and code officials. Structures with infested foamboard are very difficult to successfully treat and since the termites do not have to return to the soil in many foamboard installations due to leaking EIFS or trapped moisture in the foamboard, the infestation will not be controlled and further treatment may be unsuccessful as well. Baits will most likely provide little control since the termites in the structure do not have to return to the soil thus will not encounter bait stations unless the stations are above ground. Foamboard below grade regardless of location significantly increases liability for the PMP and care should be taken on any type of treatment or contract. Foamboard below grade is permitted in areas other than those considered areas of very heavy infestation. Also, the building code has no authority for existing construction so if called to look at an infested existing structure and there is foamboard below grade, there is no code violation. Some state regulatory agencies and state building code bodies are looking to expand the ban.

The language of the code is included below. Be aware that builders are already preparing to request a building code change to eliminate the termite prevention/pretreat requirement when the building code is up for revision in two years.

If you have questions about the code in your area, contact your building code enforcement office in your county or city.

SECTION R324 PROTECTION AGAINST TERMITES

R324.1 Subterranean termite control. In areas favorable to termite damage as established by Table R301.2(1), methods of protection shall be by chemical soil treatment, pressure preservatively treated wood in accordance with the AWPAs standards listed in Section R323.1, naturally termite-resistant wood or physical barriers (such as metal or plastic termite shields), or any combination of these methods.

R324.2 Chemical soil treatment. The concentration, rate of application and treatment method of the termiticide shall be consistent with and never less than the termiticide label.

R324.3 Pressure preservatively treated and naturally resistant wood. Heartwood of redwood and eastern red cedar shall be considered termite resistant. Pressure preservatively treated wood and naturally termite-resistant wood shall not be used as a physical barrier unless a barrier can be inspected for any termite shelter tubes around the inside and outside edges and joints of a barrier.

R324.3.1 Field treatment. Field cut ends, notches and drilled holes of pressure preservatively treated wood shall be retreated in the field in accordance with AWPAs M4.

R324.4 Foam plastic protection. In areas where the probability of termite infestation is "very heavy" as indicated in Figure R301.2(6), extruded and expanded polystyrene, polyisocyanurate and other foam plastics shall not be installed on the exterior face or under interior or exterior foundation walls or slab foundations located below grade. The clearance between foam plastics installed above grade and exposed earth shall be at least 6 inches (152 mm).

Exceptions:

1. Buildings where the structural members of walls, floors, ceilings and roofs are entirely of noncombustible materials or pressure preservatively treated wood.
2. When in addition to the requirements of R324.1, an approved method of protecting the foam plastic and structure from subterranean termite damage is provided.
3. On the interior side of basement walls.