



Georgia Structural Pest Control Commission

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December 13, 2019

Mr. Ted Miltiades
The Department of Community Affairs
Codes and Industrialized Buildings Section
60 Executive Park South, NE
Atlanta, Georgia 30329-2231

Please accept the attached proposed state code amendment and supporting documents. The amendment is submitted on behalf of the members of the Georgia Structural Pest Control Commission (SPCC). The SPCC serves the public and the professional pest management industry by promulgation of appropriate Rules of the Georgia Structural Pest Control Act, advising the Georgia Department of Agriculture on enforcement concerns and ensure the proper licensing of pest management companies, certification of operators and registration of employees.

Please do not hesitate to use the SPCC as a resource. Thank you for your consideration.

Sincerely,

Chris Gorecki, Chairman
Georgia Structural Pest Control Commission

GEORGIA DEPARTMENT OF COMMUNITY AFFAIRS

CODE AMENDMENT FORM

ITEM NO: _____ (DCA USE ONLY) PAGE 1 OF 2

CODE: IECC SECTION: R402.2.9

PROPOSER: Georgia Structural Pest Control Commission DATE: 12/13/19

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CHECK X Revise section to read as follows: ☐ Add new section to read as follows:
ONE: ☐ Delete section and substitute the following: ☐ Delete without substitution:

LINE THROUGH MATERIAL TO BE DELETED: UNDERLINE MATERIAL TO BE ADDED

☐ Approve ☐ Approve as amended (DCA STAFF ONLY) ☐ Disapprove ☐ Withdrawn

DESCRIPTION:

R402.2.9 Crawl space and Basement walls.

As an alternative to insulating floors over crawl spaces, crawl space walls shall be permitted to be insulated when the crawl space is not vented to the outside. Crawl space and basement wall insulation shall be permanently fastened to the foundation wall. and extend downward from the floor to within 9 3/8 inches (76 mm) of the finished interior grade adjacent to the foundation wall. A 3-inch (76 mm) inspection/view strip immediately below the floor joists at the top and bottom of the foundation wall shall be provided to permit inspections for termites. The band joist and mudsill shall be air sealed then insulated with a removable insulation product to provide for pest control inspection of the wood framing members.

Exposed earth in unvented crawl space foundations shall be covered with a continuous Class 1 clear/non-opaque vapor retarder in accordance with the International Building Code. All joints of the vapor retarder shall overlap by 6 inches (152 mm) and be sealed or taped. The edges of the vapor retarder shall extend at least 6 inches (228 mm) up the stem wall and shall be attached and sealed to the stem wall behind the insulation.

REASON/INTENT:

The Georgia building code requires 3" termite inspection gaps at the top and bottom of the foundation wall, but allow the band joist and mudsill to be covered with permanently fastened insulation, such as spray polyurethane foam, (SPF). However, the installation of SPF on the band joist and mudsill covers the critical areas that the pest management companies need to visually inspect. The mudsill, band joist and joist ends are the first points at which termites can be detected as they enter the wood structure. Subterranean termites can pass through small - 1/64" cracks and gain access to structural lumber by constructing shelter tubes and climbing up the inside or outside of the foundation wall. Termites can also

enter buildings through cracks in the footing and travel through voids in concrete masonry units. Inspection opportunities from the exterior of the building are often obstructed by brick or landscaping features, so inspection from inside the crawlspace is the only option. There are currently no alternative “viable” inspection methods or tools available to perform the inspections through SPF. This amendment will provide for termite inspections, insulation and air sealing in the band joist area.

FINANCIAL IMPACT OF PROPOSED AMENDMENT:

This amendment will take some extra time but will allow for the periodic inspections required to maintain termite warranties/bonds. Additionally, Georgia consumers will be able to take advantage of both valuable services, SPF and termite control.

Spray Foam Insulation and Subterranean Termite Inspection Issues

As building performance requirements have steadily increased to provide lower energy consumption, reduced air leakage, improved moisture management and building durability, the use of Spray Polyurethane Foam Insulation, (SPF) has grown significantly. This has created issues between the SPF industry and pest management companies.

Termites cause more than \$5 billion in structural damage each year in the United States. As part of the termite management process, inspections are performed by trained personnel at various points in the termite management process. Inspections may be performed to identify termite infestation and determine necessary control procedures, as part of a periodic, ongoing warranty/bond programs designed to detect and manage termite infestations (and re-infestations) as early as possible, and as part of real estate transfers (many state rules and all HUD/FHA guaranteed loans and many private lenders in most regions of the U.S.). Successful termite inspections are dependent on having visual access to identify evidence of infestation.

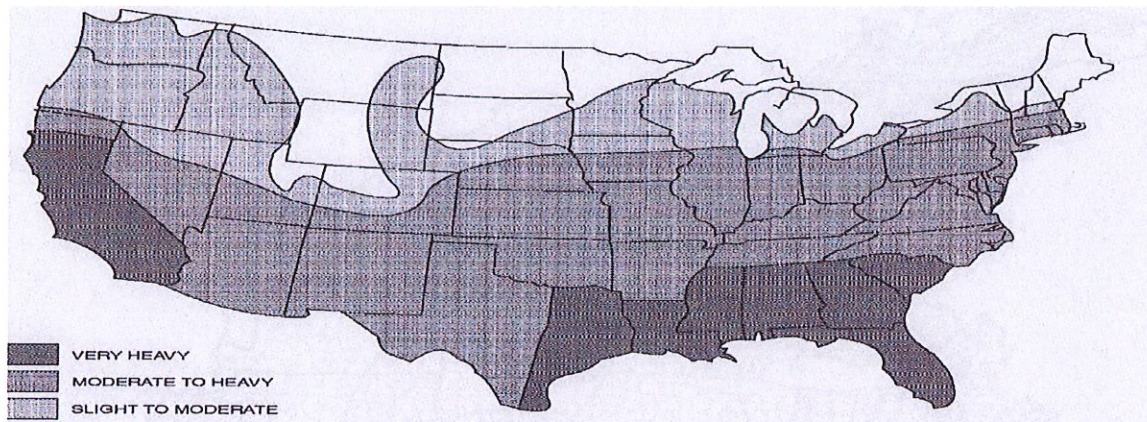
In the regions where subterranean termites are active, as shown in 2015 IRC Table R301.2.(6), (Figure 1), the use of SPF has created an issue with termite inspections. The areas of the building where SPF most commonly interferes with subterranean termite inspections are basement and crawl spaces in which SPF has been installed on the foundation walls, the mud sill and band joist areas. This assembly is known as a sealed or semi-conditioned crawl space, which requires the assembly to be insulated and have a continuous air barrier installed by code. The building industry has increasingly moved to using SPF to achieve its insulation and air barrier objectives. Building codes in Georgia and a few other states (NC, AL & MS) require 3" termite inspection gaps (no foam) at the top and bottom of the foundation wall, but still allow the band joist and mudsill to be covered with SPF. However, the installation of SPF on the band joist and mudsill covers the critical areas that the pest management companies need to visually inspect. The mudsill, band joist and joist ends are the first points at which termites can be detected as they enter the wood structure. Subterranean termites can pass through small 1/32" to 1/64" cracks and gain access to structural or decorative lumber by constructing shelter tubes and climbing up the inside or outside of the foundation wall. Termites can also enter buildings through cracks in the footing and traveling through voids in concrete masonry units. Inspection opportunities from the exterior of the building are often obstructed by brick or landscaping features, so inspection from inside the crawlspace is the only option. There are currently no alternative "viable" inspection methods or tools available to perform the inspections through SFF (see attachment "A": "Spray Polyurethane Foam / Termite Detection Demonstration Project" completed by Dr. Brian Forschler, University of Georgia, Athens GA). Additionally, visual inspections are required by some states and mortgage companies.

A result of this issue has been that homeowners who retrofit their vented crawl spaces to unvented (semi-conditioned) to improve energy and moisture management performance, may be put in a situation that their existing termite bonds or warranties are cancelled. This is due to the fact that the spray foam was installed according to building code requirements but covering the band joist and mudsill prevents termite inspectors from detecting subterranean termite infestations. New construction, based on the building codes can also have the same

outcome, taking away the pest management industry's ability to inspect this crucial area. The Georgia Structural Pest Control Commission (GA SPCC) issued SPCC Notice: 18-04 Spray Foam Insulation & Pest Management on 6/20/18 (see attachment "B") which provides Georgia consumers with important information related to ***Polyurethane Spray Foam Insulation***.

The overall solution to improve building performance and permit visual termite inspection is to provide the code required 3" inspection gaps on the top and bottom of the foundation wall and prohibit the installation of spray foam over the band joist and mudsill. The framing members would need to be caulked at the joints connecting the floor sheathing above, to the top of the foundation, as can be seen on Drawing 1. A non-rigid, removeable insulation, such as a fiberglass batt, would then be placed in the "pocket" to insulate the band joist and the mudsill. This will take extra time but will allow for the periodic inspections required to maintain termite warranties/bonds. Additionally, consumers will be able to take advantage of both valuable services, SPF and termite control.

Figure 1. 2015 IRC Table R 306.1.2 (6) Subterranean Termite Map



Drawing 1

Unvented/Sealed Crawlspace with 1.5 + " Closed Cell Spray Foam on Foundation Wall and Removable Insulation on Band Joist

