

# Clemson University Department of Pesticide Regulation

## South Carolina Standards for the Control of Termites and Other Wood-Destroying Organisms

Winter 2007



Department of  
Pesticide Regulation

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Bulletin 15

### *A Guide for Homeowners, Buyers, and Builders*

We know that your house is one of your family's most important investments. We also know that a termite or other wood-destroying organism infestation can be one of your family's biggest fears, and it can turn into one of your biggest nightmares.



Your dream house can be eaten alive!  
Remember to have your house  
checked yearly by a licensed pest  
control operator.

South Carolina Regulations establish a minimum level of service that must be provided during any treatment or inspection for subterranean termites, decay fungi, or wood-destroying beetles. Treatments and inspections for these organisms are called "structural pest control."

Clemson University's Department of Pesticide Regulation (DPR) is the agency responsible for enforcing those Regulations. This publication details the minimum Treatment Standards for subterranean termite control. For every subterranean termite treatment performed in South Carolina, the applicator is required, at a minimum, to provide the services listed on page 2 or to obtain written consent from the customer via the Official Waiver of Standards Form to omit certain Standards. (If waivers are issued, a copy must be supplied to the property owner and a signed copy must be maintained by the pest control operator.) All persons performing structural pest control of any kind for compensation on the property of another must be licensed by DPR.


### How the Department of Pesticide Regulation Can Help You

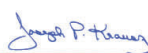
The goal of DPR is to ensure that all applicators have met a certain level of competency in pesticide use and pest identification. We do this by requiring that they pass a comprehensive certification exam before receiving their pesticide applicator's license and by mandating that each applicator receive a minimum of 10 hours of training in each five-year "recertification block." Applicators must also demonstrate financial responsibility by maintaining insurance coverage for property damage and public liability.

Expiration Date December 31,  
S.C. CERTIFIED APPLICATOR LICENSE

is qualified as a certified applicator in categories

and is certified to purchase restricted use pesticides in accordance with the  
South Carolina Pesticide Control Act

  
DIRECTOR

  
HEAD

**A SC certified applicator license  
issued by DPR.**

Our field staff routinely conducts inspections of recently-treated structures to establish whether the minimum standards have been completed. Inspectors

also respond to complaints regarding termite treatments or other aspects of pesticide use. The Department takes enforcement actions when violations and deficiencies are found. These may range from verbal warnings to civil penalties. Discrepancies in treatment procedures found during any inspection must be corrected within 30 days of written notification to the applicator. Failure to correct these discrepancies within the 30-day period may result in additional civil or criminal penalties. The enforcement histories of pest control companies doing business in SC can be found on our website at <http://regfocus.clemson.edu/dpr/greenbook.htm>.

## Treatment Standards

(1) All cellulose debris (wood such as stumps or construction debris, paper, *etc.*) must be removed from crawlspaces. Applicators must also remove any other debris or rubble that may interfere with a proper treatment.

(2) Any wooden form boards that are in contact with the soil or less than eight (8) inches from it must be removed. Any other contact between wood or other building materials that are susceptible to termites (such as synthetic stucco systems) must be broken by cutting the material off and/or placing it on an impervious base. Treated wood of the proper rating (*i.e.*, ground-contact) may be left in place.

(3) All visible and accessible termite shelter tubes on both the masonry foundation and the wooden substructure must be scraped off (not merely broken). Subterranean termite shelter tubes are essentially "termite tracks;" therefore, shelter tubes must also be removed after any re-treatment of the structure.

The above Standards must be completed or waived on every subterranean termite treatment, both pre- and post-construction, regardless of the method of treatment (liquid, bait, barrier, or a combination). The ventilation Standard, continued below in #6, must be completed or waived on every post-construction treatment.

(4) For conventional liquid treatments, the applicator should cut a narrow trench in the soil around any part of the building that touches the ground: the interior and exterior foundation walls, piers, pillars, and other supports, and pipes. This type of treatment establishes a barrier between the foundation and the soil. If the foundation footings are not covered by soil, the trench should be cut adjacent to, but not below, the footing. If the soil next to the foundation is covered by a concrete slab, the slab must be drilled at intervals of no more than 12 inches and treated at the same rate as the trenches unless the slab is more than 18 inches vertically from the nearest wooden foundation element.

(5) The treatment of hollow voids is also a required part of most conventional barrier treatments, although a few products are beginning to appear in the marketplace that do not require the treatment of voids under all circumstances. Voids must be treated unless they are covered by a solid (*i.e.*, poured concrete) masonry cap; usually only older earth-filled porches are built this way. Voids are normally found in precast-block walls and piers, the bases of chimneys, and between multiple courses of brick. Voids must be treated at intervals of no more than 16 inches. (Voids filled with concrete are no longer required to be treated, provided that test-drilling is conducted to verify that fact.)

(6) Ventilation reduces the overall moisture load in the crawlspace, and so the Standards also require that adequate ventilation be provided. There must be at least one eight (8) by 16 inch foundation ventilator for every 150 square feet of crawl space, with no "dead ends" or corners left unventilated.

(7) There must be enough clearance in the crawlspace to allow a good inspection to be made and for the application of control measures. Eight inches of clearance is the absolute minimum, and applicators must excavate the crawl space to provide at least this much clearance between the soil and the wooden substructure.

(8) The same general principles apply to slab construction, although they are applied using different techniques. For structures built on a concrete slab the soil beneath all points of potential termite entry must be treated, usually by drilling holes and pumping termiticide under pressure into the soil beneath interior and perimeter expansion joints, plumbing pipes, and voids. Expansion joints must be treated at intervals of no more than 12 inches, and voids must be treated at intervals of no more than 16 inches, just as in the Standards above. Drill holes in slabs must be no more than 12 inches away from the construction feature being targeted.

(9) Open bath traps (bath traps where soil is visible) must be accessed and treated so that subterranean termites will not enter the structure from these areas.

(10) Finally, the Regulations require that inspections be conducted in accordance with the terms of the warranty or the product label, whichever results in more frequent inspection of the structure.

## Other Control Strategies

Some liquid termite control products contain label language that will allow them to be applied in a less invasive way. Specifically, they can be applied to an existing structure by trenching and applying the liquid to the soil and making the application as described above to the outside of a structure that has a concrete slab foundation, as well as to any place inside the structure that has been infested by termites. Using the same methods, these products can be used to treat a structure that has a crawlspace foundation, with the exception that the foundation piers must also be trenched and treated. This way, a treatment may be done without having to drill and treat all of the areas of a structure that would otherwise normally have to be treated. This type of treatment is called a perimeter or an exterior perimeter/limited interior treatment (EP/LIT). In these situations, Waivers are not required for standards that the label does not require to be completed.

Currently these types of treatments are only allowed for existing structures. Structures that are under construction provide unrestricted access to the important construction elements that need to be treated; therefore, they may be treated with normal treatment techniques.

## Baiting Systems for Subterranean Termite Control

Termite baits exploit the food-sharing behavior of worker termites to spread active ingredient from a bait station throughout the colony. Some bait systems claim that they will eliminate the colonies of subterranean termites that feed on them; others promise only a reduction in the size of the colony, or in the number of colonies in the area in which the stations are placed. All of the bait systems seek to reduce the overall population of termites around the structure to the point where the risk of infestation is low enough to be acceptable. Bait systems have been in the marketplace for over a decade, and there is now essentially no difference between the level of warranty protection applicators provide when using baits versus liquid-treatment technologies.



A pest control operator demonstrates one of the several types of termite bait stations available on the market.

There are several situations where baits may be the preferred treatment option. Baiting systems apply a very small amount of pesticide in a very target-specific manner: nothing but termites eats the termite bait. This makes them well-suited to environmentally-sensitive locations or accounts where “chemical sensitivity” is a concern. Home owners concerned about the aesthetic impact of a treatment may also prefer a bait system installation, as it requires far less disturbance of the structure. Bait systems may also be a good choice where the design or the construction of a structure makes conventional treatment difficult or excessively costly.



Installation of a bait station outside a home.

Just as there are disadvantages to a liquid treatment, there are certain disadvantages to using a baiting program. Bait stations must be located and fed upon by the termites before any control begins. During this time some additional damage may occur. The bait stations must be inspected at relatively frequent intervals and the baits or monitoring materials exchanged if they become damaged or unpalatable to the subterranean termites. The structure itself must also be inspected at regular intervals, at least annually, to make sure that termites have not foraged past the bait stations and infested the structure.

Several of the baiting systems are labeled for stand-alone use, while others are intended to be used as part of a combined approach to subterranean termite control. Many applicators prefer to use a combined liquid-plus-bait approach when dealing with an established active infestation in a structure, applying a liquid treatment to the areas of infestation to quickly interrupt the termites’ access to the house, and then installing bait stations to reduce their populations and prevent them from becoming re-established.

## Treatments and Warranties for New Construction

Termiticide labels have specific instructions for the treatment of buildings under construction. In the trade these are known as “pretreats.” All of the required Standards detailed above must be completed during a pretreat, unless the applicator receives specific written permission from the Dept. of Pesticide Regulation to waive part of the treatment or the label of the product being used specifically does not require a Standard to be completed.

The Regulations require that a renewable warranty be issued for every residential pretreat. The warranty must cover damages for the first year, and must at least cover retreatment after that. It must be renewable annually for at least five years, and transferable to any owner of the property within that time if it has been kept in effect continuously prior to the transfer. The customer must pay each year’s annual renewal. If they do not, the warranty and the transfer requirements cease to be in effect.

If a Standard is not properly completed during a pretreat, the Regulations require that the applicator either complete it using post-construction techniques (e.g., drilling and injection) or use another appropriate technology (e.g. bait stations, direct wood treatment) to protect the structure.

The applicator is not required to warranty structures where violations of the Standard Building Code are present, or where there is wood or synthetic stucco in contact with the ground. They are also not required to provide warranty coverage for structures with inadequate clearance, untreated additions, or extensive disturbance of the treated areas (by landscaping or utility installation, for example) after the treatment.

### What Kind of Warranties are Offered?

There are two general types of warranties against re-infestation: some cover only the cost of retreatment, and others cover both the cost of retreatment and the repair of any damage done by a re-infestation of subterranean termites during the warranty period. Not all companies offer repair warranties, and not all structures will qualify for them.

Warranties almost always must be renewed annually, but firms vary in the maximum length of coverage they offer. Lifetime warranties and transferable warranties are less common than they were in years past. The length of the warranty period and the price charged for the annual renewal within that period varies depending on the company's assessment of the risks involved and the type of warranty offered. Structures are generally inspected once a year, although some firms choose to inspect high-risk structures (e.g., those in some coastal areas where Formosan subterranean termites are prevalent) more frequently. The Regulations require that inspections be conducted as specified by the product label or the warranty contract, but do not require a particular frequency of inspection.







### What if My Problem is Beetles Rather Than Termites?

Infestations of beetles that are not capable of reinfesting seasoned wood normally do not require treatment unless very large numbers of beetles are present, as is sometimes the case in log homes and other rustic dwellings. The wood in these structures often has a higher moisture content than dimensional lumber, sometimes ranging up around 20% or greater. These conditions can support such very high numbers of buprestid and cerambycid beetles that control may be necessary even though no reinfestation is possible.

In other cases the Regulations require either that an infestation of beetles capable of reinfesting wood be determined to be present and active, or the customer be given written notice that the treatment is being performed without evidence of activity. This is often accomplished simply by having the customer sign or initial a notation on the contract about the absence of activity.

Please see Bulletin 19, Other Wood Destroying Organisms, for more information.

### Checklist for Selecting a Pest Control Company

-  Get several bids, which usually are free, from different Pest Control Operators. While looking at bids, compare not only the "up-front" costs, but also compare the annual fees to maintain the coverage. In comparing companies, inquire about what type of coverage is offered, along with the provisions for transferring the coverage to a new owner if you sell the house.
-  Ask the company for references and check them out. Ask friends and neighbors to recommend a firm.
-  Get a termite contract. Contracts are usually written for five to 10 years. The most useful contracts cover damage, namely treatment and repair.
-  Have your house inspected regularly for termites.
-  A licensed company must place its yellow pesticide sticker, business license number, company name, and location on their company trucks.
-  To learn whether a company is licensed, all the Clemson University Department of Pesticide Regulation at 864.646.2150. To learn about a company's history, please visit our Enforcement Database at <http://regfocus.clemson.edu/dpr/greenbook.htm>.