Proposed Minimum Subterranean Termite Treatment Standards

Introduction

This document is intended to serve as a model for states considering the adoption of standards for soil application of termicidves. This model represents the minimum soil treatment standards for subterranean termite control recommended by the Association of Structural Pest Control Regulatory Officials (ASPCRO). This standard only addresses soil treatments intended as chemical barriers and does not reference other types of pesticide treatments applied as aerosols, foams, baits, dusts, aerosols or fumigants; nor does it address application technologies such as biological control agents.

Part I Labeled use of Soil Treatment Termicidve Products

Termiticide approved for the control subterranean termites (termites) shall be only those products that are registered by the United States Environmental Protection Agency (USEPA) and the State of __________________, and labeled for the control of termites. A termiticide shall be used only by persons licensed by the state for the use and a the specific rate, volume and manner, including the concentration and dosage prescribed by the label; except in the situations described in Part V.

Part II General Treatment Standards

A. All accessible cellulose-bearing debris including scrap wood, wood chips, and paper must be removed from beneath the structure. Removal must be performed by the pest control operator, or through an agreement between the customer and the pest control operator.

B. All direct wood to soil contact, both inside and outside the foundation, shall be corrected by the pest control operator or through an agreement between the customer and the pest control operator.

C. Termite tunnels - Remove all accessible termite tunnels from foundation walls, pillars and the wood under structure.

D. Securely plug or fill with mortar all drill holes into masonry elements in living areas, basements, and other commonly occupied areas immediately following treatment.

Part III Pre-Construction Termite Treatment

Pre-construction treatment (pretreatment) is a termicidve application made to a structure prior to the installation of the finished grade or applications of soil applied termicidve subject to the requirement of USEPA Pesticide Regulation Notice 96-7, the applicator may not apply the termicidve at a lower dosage, concentration, or frequency than specified on the termicidve label.

A. **Pretreatment of Foundations for Crawlspace and Basement Construction**

Create a horizontal barrier by treating the soil prior to concrete footings being poured. If this is impossible due to completion of footings and foundation, treat available masonry voids. When treating soil adjacent to foundations, apply the termicidve as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to the footing or to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed, from grade to footing or to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the
footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

B. Pre-treatment of Slab Construction

1. Monolithic Slab
   After grading is completed and prior to pouring of the slab, create a horizontal barrier with termite control by treating the soil which will lie beneath the entire slab area as directed by the termiticide label. Treat all critical areas including, bath traps, plumbing lines, electrical conduit openings, and other openings with a termite control. After installation of the final grade, trench or trench and rod and treat the entire perimeter of the slab foundation with a termite control as specified on the termiticide label for pre-construction foundation soil treatment.

2. Suspended (Supported) and Floating Slabs
   Treat and described in (1) above for monolithic slab. In addition to this treatment, treat soil in the bottom of the trench with a termiticide prior to pouring the footing. If this footing is poured prior to pretreatment, treat the available masonry voids in the foundation wall with termite control. After foundation walls are erected and prior to pouring the slab, trench or rod and trench and treat soil adjacent to interior foundation walls. Treat exterior perimeters of foundation walls with a termite control as specified on the termiticide label.

Part IV Post-Construction Treatment

Post-construction treatment is the application of a termiticide after the final grade is installed. For vertical soil treatment areas, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements at the rate prescribed on the termiticide label from grade to the top of the footing. When the footing is more the four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed on the termiticide label to a minimum depth of four(4) feet.

A. Crawl Space and Basement Construction
   Create a horizontal barrier by treating the soil prior to concrete footings being poured. If this is impossible due to completion of footings and foundations, treat available masonry voids. When treating soil adjacent to foundations, apply the termiticide as the backfill is being replaced, or if the construction contractor fails to notify the applicator to permit this, treat the foundation to the footing or to a minimum depth of 4 feet after the backfill has been installed. The applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation elements, at the rate prescribed from grade to footing or to a minimum depth of 4 feet. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

B. Pre-treatment of Slab Construction

1. Monolithic Slab
   After grading is completed and prior to pouring of the slab, create a horizontal barrier with termite control by treating the soil which will lie beneath the entire slab area as directed by the termiticide label. Treat all critical areas including, bath traps, plumbing lines, electrical conduit openings, and other openings with a termite control. After installation of the final grade trench or trench and rod and treat the entire perimeter of the slab foundation with a termite control as specified on the termiticide label for pre-construction foundation soil treatment.
2. Suspended (Supported) and Floating Slabs
   Treat as described in (1) above for monolithic slab. In addition to this treatment, treat the soil in the bottom of the trench with a termiticide prior to pouring the footing. If this footing is poured prior to pretreatment, treat the available masonry voids in the foundation wall with termiticide. After foundation walls are erected and prior to pouring the slab, trench or rod and trench and treat soil adjacent to interior foundation walls. Treat exterior perimeters of foundation walls with a termiticide as specified on the termiticide label.

Part IV Post-Construction Treatment

Post-construction treatment is the application of a termiticide after the final grade is installed. For vertical soil treatment areas, the applicator must trench and rod into the trench or trench along the foundation walls and around pillars and other foundation element at the rate prescribed on the termiticide label from grade to the top of the footing. When the footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed on the termiticide label to a minimum depth of four (4) feet.

A. Crawl Space Construction
   1. Crawl Space Construction Treatment
      For crawl spaces, apply vertical termiticide barriers at the rate of four (4) gallons of emulsion per 10 linear feet per foot of depth from grade to the top of the footing, or if the footing is more than four (4) feet below grade, to a minimum depth of four (4) feet. Apply by trenching and rodding into the trench, or trenching. Treat both sides of foundations and around all piers and pipes. Where physical obstructions, such as concrete walkways adjacent to foundation elements prevent trenching, treatment may be made by drilling through such walkways and rodding alone. When soil type or other conditions make trenching prohibitive, rodding may be used. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. Read and follow the mixing and use direction section of the termiticide label when situations are encountered where the soil will not accept the full application volume.
      a. Rod holes and trenches must not extend below the bottom of the footing.
      b. Rod holes must be spaced so as to achieve a continuous chemical barrier and may not be more than 12 inches apart.
      c. Trenches must be a minimum of six (6) inches deep or to the bottom of the footing, whichever is less, and need not be wider than six (6) inches. When trenching in sloping (tiered) soil, the trench must be stepped to ensure adequate distribution and to prevent termiticide from running off. The emulsion must be mixed with the soil as it is replaced in the trench.
      d. When treating crawl spaces, turn off the air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

   2. Inaccessible Crawl Spaces
      For inaccessible interior areas, such as areas where there is insufficient clearance between floor joists and ground surfaces to allow operator access, excavate, if possible, and treat according to the instructions for accessible crawl spaces. Otherwise, apply one, or a combination of the following two methods.
      a. To establish a horizontal barrier, apply to the soil surface, one gallon of emulsion per 10 square feet overall using a nozzle pressure of less than 25 p.s.i. and a coarse application nozzle. For an area that cannot be reached with the application wand, use one or more
extension rods to make the application to the soil. Do not broadcast or power spray with higher pressures.

b. To establish a horizontal barrier, drill through the foundation wall or through the floor above and treat the soil perimeter at a rate of one gallon of emulsion per 10 square feet. Drill spacing must be at intervals not to exceed 24 inches.

c. When treating crawl spaces, turn off air circulation system of the structure until application has been completed and all termiticide has been absorbed by the soil.

3. Other Construction Elements

a. Pipes - The soil adjacent to pipes underneath the structure shall be treated by rodding or trenching according to label directions. When pipes are covered with insulating material to penetrate soil below the depth to which such covering extends.

b. oil - Other construction elements along foundations including concrete slab porches, steps, chimneys, porch columns, patios, walkways and driveways shall be treated by one of the following methods:

   1. Excavation - Remove soil in at least a 12 inch by 12 inch area beneath the slab adjacent to the main foundation wall and treat soil as specified by the termiticide label.

   2. Drill and Treat

      i. Drill vertically through slab or other hard surface along a foundation as close as possible to the foundation wall at no more than 12 inch intervals and treat soil beneath slab to the top of the footing, or to a minimum depth of four (4) feet. In determining the drilling interval, attention should be paid to soil type and compaction. Drill holes shall be placed so as to establish a continuous termiticide barrier in the soil; or

      ii. Drill horizontally through the wall of slab or its support structure at no more than 12 inch intervals beginning immediately below the bottom of slab and rod soil from the bottom of the slab to the top of the footing. Drill holes shall be spaced so as to establish a continuous termiticide barrier in the soil. In determining the drilling interval, attention should be paid to soil type and compaction.

4. Masonry Voids

Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to be treated. Apply at a rate of two (2) gallons of emulsion per 10 linear feet of footing using a nozzle pressure of less than 25 p.s.i. When using this treatment, access holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely examined: Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

B. Slab Construction

Post-construction treatment for subterranean termites in structures with slab construction be in conformance with the following procedure:

1. Foundation Treatment

   The applicator must trench and rod into the trench or trench along the foundation walls and other foundation elements, at the rate prescribed on the termiticide label from grade to the top of the footing.

2. Other Construction Elements
a. Treat all traps and other accessible openings in the slab.
b. Treat all expansion joints, visible cracks and other openings in the slab with a termiticide by rodding under or drilling through the slab and thoroughly treating the area beneath the slab where the above state conditions exist.
c. Soil - Other construction elements along foundations including concrete slab porches, steps, chimneys, porch columns, patios, walkways and driveways shall be treated by of the following methods:
   1. Excavation- Remove soil in at least a 12 inch by 12 inch area beneath the slab adjacent to the main foundation wall and treat soil as specified by the termiticide label.
   2. Drill and Treat- Drill vertically through slab or other hard surface along a foundation wall at no more than 12 inch intervals and treat soil beneath slab to the top of the footing or to a minimum depth of four (4) feet. In determining the drilling interval, attention should be paid to soil type and compaction. Drill holes shall be placed so as to establish a continuous termiticide barrier in the soil or;
      bb. Drill horizontally through the wall of slab or its support structure at no more than 12 inch intervals beginning immediately below the bottom of slab and rod treat soil from the bottom of the slab to the top of the footing. Drill holes shall be spaced so as to establish a continuous termiticide barrier in the soil. In determining the drilling interval, attention should be paid to soil type and compaction.

3. Masonry Voids
   Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to be treated. Apply at that rate of two (2) gallons of emulsion per 10 linear feet of footing using a nozzle pressure of less than 25 p.s.i.

C. Basement Construction
1. Treatment Along Foundations
   The applicator must trench and rod into the trench or trench along the foundation walls and around other foundation elements, at the rate prescribed from grade to the top of the footing. When the footing is more than four (4) feet below grade, the applicator must trench and rod into the trench or trench along the foundation walls at the rate prescribed to a minimum depth of four (4) feet. The actual depth of treatment will vary depending on soil type, degree of compaction, and location of termite activity. When the top of the footing is exposed, the applicator must treat the soil adjacent to the footing to a depth not to exceed the bottom of the footing. However, in no case should a structure be treated below the footing.

2. Treatment of Masonry Voids
   Drill and treat voids in multiple masonry elements of the structure extending from the structure to the soil in order to create a continuous treatment barrier in the area to the treated. Apply at the rate two (2) gallons of emulsion per 10 linear feet of footing using a nozzle pressure of less than 25 p.s.i. When using this treatment, access holes must be drilled below the sill plate and should be as close as possible to the footing as is practical. Treatment of voids in block or rubble foundation walls must be closely examined: Applicators must inspect areas of possible runoff as a precaution against application leakage in the treated areas. Some areas may not be treatable or may require mechanical alteration prior to treatment.

3. Treatment of Basement Floors
   Treat beneath the basement floor along the inside of the foundation walls, along cracks in
the basement floors along interior load bearing walls, around sewer pipes, conduits and piers.

4. **Other Construction Elements**
   a. All other construction elements including concrete slab porches, steps, chimneys, porch columns, patios, walkways and driveways, shall be treated by one of the following methods:
      1. *Excavation* - Remove soil in at least a 12 inch by 12 inch area beneath the slab adjacent to the main foundation wall and treat soil as specified by the termiticide label.
      2. *Drill and Treat*
         i. Drill vertically through slab or other hard surface along a foundation as close as possible to the foundation wall at no more than 12 inch intervals and treat soil beneath slab to the top of the footing or to a minimum depth of four (4) feet. In determining the drilling interval, attention should be paid to soil type and compaction. Drill holes shall be placed so as to establish a continuous termiticide barrier in the soil; or
         ii. Drill horizontally through the wall of slab or other structure at no more than 12 inch intervals beginning immediately below the bottom of slab and rod treat soil from the bottom of the slab to the top of the footing. Drill holes shall be spaced so as to establish a continuous termiticide barrier in the soil. In determining the drilling interval, attention should be paid to soil type and compaction.

**Part V Exemptions From Standards**

Both pre-construction and post-construction treatments establish a continuous chemical barrier in all applicable and labeled areas while utilizing at least the minimum application concentration and volume prescribed by the termiticide label with the intended result of at least five years of efficacy in preventing termite entry into the treated structure. Limited deviations from the treatment standard application volume and placement for post construction treatment may be permitted if the conditions outlined in both (A) and (B) are met.

A. At least one or more of the following conditions is documented:
   1. Specific environmental conditions are such that application of a pesticide at the full labeled concentration and volume is likely to result in adverse environmental impact. Examples may include the presence of a well, a footing drain that empties into a water body, a high water table, and other environmental hazards identified in the precautionary statements on the termiticide label.
   2. Structural barriers, soil conditions or soil types exist that prohibit application of the labeled volume or limit access to applicable soil treatment areas.
   3. The customer requests a partial treatment and has signed a waiver acknowledging such action by the pest control operator.

B. The following information shall be furnished in writing to the customer:
   1. A full disclosure explaining the difference between a complete treatment and the partial treatment to be performed. The disclosure shall outline any deviation from the label application volume and placement as well as reason for such variation.
   2. The pesticides used, including brand name and EPA registration numbers.
   3. The total volume of termiticide applied.
4. Specific information of sufficient detail to distinguish where treatment actually occurred, including a graph of the structure identifying treated areas, utilities and locations of termite activity.

5. A clear, concise statement indicating whether the application has any guarantee or warranty, and the terms of the guarantee or warranty, e.g. pre-treatment (full or partial), damage and re-treatment, or no warranty.