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SA HEALTH TERMITICIDE (SAFE USE) CODE OF PRACTICE

To be used in conjunction with the current
Australian Standard
dealing with the control of subterranean
termites



Government
of South Australia

SA Health

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1. SCOPE

This code provides instructions for the pest control operator on how to:

- (1) Apply termiticides for the prevention and treatment of termite infestations in existing buildings, buildings under construction and other areas;
- (2) Protect himself/herself, other people, animals and the environment from adverse effects of the termiticide used;
- (3) Decontaminate premises where spillage of termiticide has occurred.

2. APPLICATION

Methods specified in this code are to be used in conjunction with the current Australian Standard dealing with the protection of buildings from subterranean termites, published by Standards Australia, as amended from time to time.

3. INTERPRETATION

For the purposes of this code, unless the context otherwise requires, the following words and expressions shall have the meanings hereby respectively assigned to them:

'False floor' means a wooden floor which is built over another floor and includes a stage, dais or platform.

'Living area of buildings' means parts of buildings which people or animals normally inhabit or work in.

'Immediate area' means the area within a six metre radius of an operator.

'Slab injector' means the piece of equipment used to inject a measured volume of liquid termiticide through holes drilled in a concrete slab in order to form a chemical barrier in soil beneath the slab.

'Spill' includes overflow, leak, splash, pour out, upset, or incorrect or inappropriate application, spillage and each of the other derivatives of spill have a corresponding interpretation.

'Termiticide' means a pesticide registered and approved by the National Registration Authority for the control or destruction of termites.

4. HEALTH

- (1) All termiticides may enter the body by absorption through the broken or intact skin, by inhalation or by swallowing. The presence of organic solvents in a formulation increases the rate of absorption into the body.
- (2) Chlorpyrifos does not accumulate in the body but repeated minor exposures may cause depression of cholinesterase levels. This depression may be monitored by blood tests and is reversible by removing the affected person from further contact with anticholinesterase compounds for a period of time.
- (3) Repeated small exposures to arsenic compounds may lead to chronic poisoning.
- (4) **Poisoning**
 - (a) *Symptoms of poisoning by organophosphorus termiticides:*
Headache, nausea, vomiting, stomach pains, general malaise, dizziness, muscle twitching, excessive sweating, blurred vision, slurred speech, weakness.

NOTE: The above symptoms are not specific to termiticides but may occur as a result of other illnesses. Should any of these symptoms occur during or after the use of a termiticide, consult a doctor.

(b) *Symptoms of poisoning by arsenic trioxide:*

If swallowed - burning pain in gullet, vomiting, watery bloody diarrhoea. If inhaled - restlessness, cough with foamy mucous, difficulty in breathing.

(5) **First Aid**

- (a) If any symptoms of poisoning occur, stop work immediately and move from contaminated area.
- (b) *If termiticide is on skin or clothing*, remove contaminated clothing and wash skin thoroughly with soap and water, flushing area with large quantities of water. Do not re-use contaminated clothing until it has been thoroughly washed (see Section 11.7).
- (c) *If termiticide is in eyes*, hold eyes open and flood with water.
- (d) *If termiticide is swallowed*, and if more than 15 minutes from a hospital, induce vomiting, preferably using Ipecac syrup APF. If unconscious or convulsing, do NOT induce vomiting. If chlorpyrifos is swallowed, and medical assistance is not immediately available, one atropine sulphate tablet should be taken every 15 minutes until dryness of the mouth occurs.
- (e) *If person is not breathing*, apply artificial respiration.
- (f) When consulting a doctor or hospital specify which termiticide was used or alternatively take the label or the complete container with you.

5. PROTECTIVE CLOTHING

- (1) Any person who:
 - (a) applies a termiticide;
 - (b) is present when a termiticide is being applied; or
 - (c) enters the area in which a termiticide has been applied before all work has been completed,must wear appropriate protective clothing.
- (2) Any person cleaning up spilled termiticide must wear the appropriate protective clothing.
- (3) If protective clothing becomes wet with termiticide, it must be removed immediately. Where skin contact with the termiticide has occurred immediately wash the contaminated skin with soap and water.
- (4) Do not re-use clothing until it has been thoroughly cleaned. (see Section 11.7)

6. PROHIBITIONS

- (1) In existing buildings being treated with a termiticide, persons not wearing protective clothing must not enter the immediate area where termiticide is being or has been applied until:
 - (a) the application has been completed;
 - (b) all means of access to subfloor areas have been closed and all drill holes have been plugged; and

- (c) the chemical odour has been reduced to an acceptable level. Where spillage has occurred ventilation must continue for three hours after the contaminated area has been cleaned by an approved method and dried (see Section 11).
- (2) In buildings under construction being treated with termiticide, persons not wearing protective clothing must be advised not to enter the immediate area while termiticide is being applied and not to enter the area without protective clothing until the area is visibly dry or has been covered with a waterproof membrane.
- (3) Termiticides must not be applied if any person in the immediate area is not wearing appropriate protective clothing.
- (4) Termiticides must not be applied to wood that is subsequently to be used as fuel for heating or cooking purposes.
- (5) Termiticides must not be applied to sub-floor crawl spaces through ventilators or holes drilled in floors unless the equipment used and the method of application has been approved for this purpose by the Health Commission. In the use of such equipment, continuous visual observation of the area being treated must be maintained at all times.
- (6) Termiticides must not be used in buildings or structures where animal or human food is stored or prepared until all food or food preparation surfaces have been removed or covered to prevent contamination with termiticide.
- (7) Termiticides must not be used in buildings with underground water tanks or wells located within or adjacent to the foundations of the building unless precautions are taken to ensure that the termiticide does not enter the tank or well.
- (8) Termiticides must not be sprayed or painted into or onto air-conditioning, heating or cooling system ducts.
- (9) Termiticides must not be applied in crawl spaces from which air is drawn for interior ventilation purposes.
- (10) Termiticides must not be applied to soil or fill that is wet and unable to absorb additional liquid.
- (11) Termiticide emulsion must not be prepared from the concentrate in areas where spillage would constitute a serious health or environmental hazard, such as within buildings.

7. EQUIPMENT

- (1) Spray equipment used for the application of liquid termiticides must be fitted with:
 - (a) a pressure regulator; and
 - (b) a pressure gauge.
- (2) Slab injectors must be fitted with:
 - (a) a flow meter or some other method of continually monitoring the flow;
 - (b) a non drip nozzle; and
 - (c) an adequate means of forming a seal between the injector and the slab.
- (3) All external parts of equipment used for application must be kept clean and free from contamination with termiticide.

- (4) The operator must check all application equipment especially hose connections, seals and valves to ensure that it is free of leaks and working correctly before commencing each job.
- (5) The operator must have on the vehicle:
 - (a) sufficient absorbent materials to soak up spills; and
 - (b) appropriate equipment and materials to clean spill-affected areas.

8. APPLYING TERMITICIDES IN EXISTING BUILDINGS

- (1) *Before commencing any work:*
 - (a) plans and specifications of buildings should be obtained, where practical;
 - (b) the entire area to be treated and its surrounds must be inspected by a competent operator who shall supervise and be responsible for the work to be done. During the inspection the operator must note all problem areas (pipes, conduits, ducts, cracks and joints in concrete floors, false floors, cellars, floor coverings and how they are fixed to the floor, built in furniture, wells and water tanks, swimming pools, presence of animals, etc) and plan the treatment accordingly;
 - (c) where possible, the operator must determine if a building or area has been previously treated, and if so, by whom, when and with what termiticide. (If correctly treated on a previous occasion and the chemical soil barrier has not been broken or bridged further application of termiticide may not be necessary);
 - (d) the operator must advise the owner or his/her agent and ensure that the occupiers of a building or area are informed of:
 - (i) the procedures, including the name and nature of the termiticide, that are to be used during the treatment; and
 - (ii) the co-operation or assistance that will be required from them including restriction of access to the area to be treated.
- (2) *Before applying any termiticide:*
 - (a) all persons not wearing appropriate protective clothing, pets, poultry and other animals must be excluded from the immediate area where termiticides are to be applied;
 - (b) warning notices (see Appendix A) must be placed at all entrances or approaches to the area to be treated. These notices are to remain in place until treatment and clean-up have been completed.
- (3) *Applying liquid termiticide to soil beneath suspended floors:*
 - (a) where direct access to the sub-floor crawl space is available from the outside of a building, entry and application of termiticide to the sub-floor areas must be made through this access point.
 - (b) where direct access to the sub-floor crawl space is not available from the outside of a building-
 - (i) carpets and other floor coverings must be turned back where possible to allow access holes to be opened in the floor;
 - (ii) application hoses must be taken by the shortest practical route to each access hole.

- (4) *Applying liquid termiticide to soil beneath concrete floors or exterior concrete slabs:*
- (a) carpets and other absorbent floor coverings must be lifted and removed at least one metre from the area to be treated or, where possible and practical, be supported off the floor.
 - (b) where carpets or other absorbent floor coverings are glued to the floor, a section of the floor covering must be removed where each hole is to be drilled provided that the section removed is large enough to avoid contamination of floor covering surrounding the hole.
 - (c) large and irregular shaped areas must be divided into observable sections for treatment.
 - (d) holes must be drilled in the floor or concrete slab in accordance with the current Australian Standard.
 - (e) holes must not be drilled in more than one room at a time or in an area that is not observable by the operator during application of the termiticide unless each hole is temporarily plugged to prevent the spillage of termiticide from the holes.
 - (f) apply termiticide as per current Australian Standard ensuring that an effective seal is maintained between the slab injector and the floor or slab. Avoid overflow from adjacent holes, cracks and joints in the floor. If spillage or overflow occurs clean up immediately.
 - (g) on completion of treatment in a room or observable area all holes must be plugged with compound that is moistureproof and prevents discharge of termiticide from the holes when applying termiticide in the next room or area.
 - (h) on completion of all work, inspect treated areas to make sure that the application and clean up procedures have been conformed with.

9. APPLYING TERMITICIDE IN TREES

- (1) When using liquid termiticide, bore downward sloping holes into the trunk of the tree at various heights:
 - (a) to locate termite workings; and
 - (b) to determine the extent of the infestation and damage.
- (2) Apply up to 20 litres of 0.5 per cent chlorpyrifos emulsion into the tree through one or more of the holes that penetrate into termite galleries or nest at a pressure not exceeding 170 kPa (25 pounds per square inch). Avoid overflow from adjacent holes.
- (3) When using arsenic trioxide dust, bore the holes horizontally into the trunk of the tree. Puff arsenic trioxide dust lightly into each hole, ensuring that no dust makes contact with the sapwood area.
- (4) After completion of the termiticide or arsenic trioxide treatment:
 - (a) fill all holes with plugs or dowels and cut them off level with the surface of the trunk;
 - (b) seal plugs or dowels and area surrounding them with a suitable grafting compound.

10. APPLYING LIQUID TERMITICIDE FOR BUILDINGS UNDER CONSTRUCTION

- (1) *Before commencing any work*, the operator must advise the builder or his/her agent, of:-
 - (a) the procedures to be used during the treatment; and
 - (b) the co-operation or assistance that will be required including restriction of access to the area to be treated.
- (2) *Before applying any termiticide*, all persons not wearing the appropriate protective clothing, pets, poultry and other livestock must be excluded from the immediate area where termiticides are to be applied.
- (3) Termiticide must be applied at a pressure which does not produce small droplets which are likely to drift.

11. TREATMENT OF SPILLS

- (1) *Where a liquid spill occurs on concrete floors, non-absorbent floor coverings or other non-absorbent surfaces* (gloss painted surfaces, formica, metal, tiles):
 - (a) stop the source of the spill;
 - (b) stop the spill from spreading further, if necessary using suitable material to form a barrier;
 - (c) absorb as much liquid as possible with waste rag, paper, cat litter, soil, lime or other absorbent material;
 - (d) remove used absorbent and barrier material, and place in drum or strong plastic bag and seal for disposal (see Section 13);
 - (e) immediately wash the spill affected area with industrial detergent and water, rinse with clean water, removing all wash and rinse water for disposal (see Section 13);
 - (f) Allow to dry thoroughly.
- (2) *Where a liquid spill occurs on wooden floors:*
 - (a) stop the source of the spill;
 - (b) stop the spill from spreading further, if necessary using suitable material to form a barrier;
 - (c) absorb as much of the liquid as possible with waste rag, paper, cat litter, soil, lime or other absorbent material;
 - (d) remove used absorbent and barrier material and place in drum or strong plastic bag and seal for disposal (see Section 13);
 - (e) scrub the spill affected area with industrial detergent and water, rinse with clean water, remove all water used for this purpose for disposal ;
 - (f) allow floor to dry;
- (3) *Where a liquid spill occurs on absorbent floor coverings* (carpets, rugs, etc):
 - (a) stop the source of the spill;
 - (b) absorb as much of the liquid as possible with paper towels, rags, sponges, mops or other absorbent material;

- (c) remove used absorbent materials and place in drum or strong plastic bag and seal for disposal;
 - (d) decontaminate the floor covering by steam cleaning or using a commercial carpet shampoo.
- (4) *Where a liquid spill occurs on absorbent surfaces* (brick, cement blocks, cement, rendered walls, timber, unpainted plaster or plasterboard):
- (a) stop the source of the spill;
 - (b) stop the spread of the spill;
 - (c) absorb as much liquid as possible with sponges, rags, paper towels or other absorbent material, seal in drum or strong plastic bag for disposal (see Section 13);
 - (d) wash the spill affected surface with industrial detergent and water, rinse with clean water and remove all wash and rinse water for disposal (see Section 13);
 - (e) allow surface to dry thoroughly;
- (5) *Where a liquid spill occurs on absorbent wall paper or other absorbent decorative materials:*
- (a) stop the source of the spill;
 - (b) stop the spread of the spill;
 - (c) absorb as much of the liquid as possible with sponges, rags, paper towels or other absorbent material, seal in drum or strong plastic bag for disposal (see Section 13);
 - (d) if chlorpyrifos is involved, wash area with household cleaner containing ammonia.
- (6) *Where a spill occurs on soft furnishings* (curtains, upholstered furniture, etc):
- (a) stop the source of the spill;
 - (b) if contamination involves chlorpyrifos, steam clean or clean using a dry cleaning agent for commercial upholstery or carpet shampoo.
- NOTE: Soft furnishings that have been in a room where termiticide has been applied but have not been in direct contact with the liquid do not require decontamination.
- (7) *Where a liquid spill occurs on clothing:*
- (a) stop the source of the spill;
 - (b) if clothing is contaminated with chlorpyrifos remove and launder with hot water and laundry detergent, and ammonia or washing soda.
- NOTE: Clothing that has been in a room where termiticide has been applied but has not been in direct contact with the termiticide does not require decontamination.
- (8) *Where a liquid spill occurs on soil:*
- (a) stop the source of the spill;
 - (b) if the spill involves termiticide concentrate or sufficient termiticide emulsion to form a pool, stop the spread of the spill by creating a barrier and remove as much liquid as possible;

- (9) *Where an arsenic trioxide spill occurs:*
- (a) stop the source of the spill;
 - (b) carefully remove the dust and place in a drum or strong plastic bag and seal and label for disposal (see Section 13);
 - (c) if spill is on soil remove contaminated soil and dispose with the dust;
 - (d) if spill is on hard surface wash area and remove washing water for disposal (see Section 13).

12. NOTIFICATION OF SPILLS

- (1) *Where total spillage in excess of 3 litres of termiticide emulsion has occurred in any building the operator must, as soon as practicable after the spill, notify:*
- (a) the Environmental Health Branch of the South Australian Health Commission;
 - (b) the owner of the premises or his/her agent; and
 - (c) the occupiers of the premises.

13. WASTE DISPOSAL

- (1) *Empty termiticide containers must be:*
- (a) rinsed thoroughly with water at least three times. Rinsings must be added to the spray tank;
 - (b) rendered unusable by holing or crushing; and
 - (c) buried in a waste depot licensed by the South Australian Environment Protection Authority for the purpose.
- (2) *All materials used for absorbing and cleaning up termiticides, and all other contaminated articles (carpets, rugs, wall paper, furnishings, clothes) which are to be disposed of must be:*
- (a) carefully collected and placed in a suitable container; and
 - (b) buried in a waste depot licensed by the South Australian Environment Protection Authority for the purpose.
- (3) *Wash and rinse water collected during decontamination procedures must be disposed of:*
- (a) by placing in a trench against the footings;
 - (b) by adding to contents of the spray tank; or
 - (c) in a manner approved by the South Australian Environment Protection Authority.

WARNING

**AREA BEING TREATED
WITH
APPROVED PESTICIDE
NO UNAUTHORISED ENTRY**

(Name, address and telephone number of pest controller)

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