REVIEW ANALYSIS OF INDIAN STANDARD

(To be submitted to the Sectional Committee)

1. **Sectional Committee No. & Title:**Building Construction Practices Sectional Committee CED 13

2. **IS No: IS : 6313 (Part I)**

3. **Title: Code of Practice for Anti-Termite Measures in Buildings**

Part I Constructional Measures

4. **Date of review:**

5. **Review Analysis**

i) Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.

Standard (No.& Title)	**Whether the standard has since been revised**	**Major changes**	**Action proposed**
RentokilPCI- Signs of termite damage	Yes	2. PRELIMINARY CONSTRUCTIONAL OPERATIONS 2.1 Presence of Termites	Addition in existing 2.1 Following are some common signs of presence of termites: • Mud tubes on wall: Subterranean termites build shelter tubes made of mud, dirt and debris in order to travel to and fro the food source without being seen. These tubes are

			about the size of a coin and are usually found on exterior and interior walls leading up to the entry points of the building. • Sightings of termites swarmers (flying termites) or discarded wings: Usually the first sign of infestation noticed by property owners are the presence of swarmers or alates. Another common indication is the remnants of discarded wings on windowsills and floors. • Papery or hollow sounding timber: Termites usually consume woods from the inside out, leaving a thin veneer of timber or paint. So when you knock or tap on an area that has termite damages, it will sound hollow or

			papery due to parts of the timber having been eaten away. • Tight fitting door or hard to open window: As termites devour timber, their excrement or ‘mud’ creates a protective environment that traps heat and moisture. This causes timber to swell, making it harder to open or close the infested windows and doors. • Tunnels in the wood: Also known as ‘galleries’ which are quite difficult to see from the outside. • Termites droppings: After consuming wood, dry wood termites often leave behind brown coloured and grainy faecal mounds. These faecal

			pellets are usually found beneath the infested wood. • Floor damage: Termites can damage laminate flooring and even skirting boards. Affected flooring may blister and sag in certain areas and checking underneath the flooring may help to uncover termite activity. • Wall damage: Look foe unexplained cracks on internal walls. As termites consume cellulose found in timber within walls, the visible cracks could be a sign of termite activity inside. • Ceiling damage: Wooden ceilings, beams, architraves and rafters in attics are just as much at risk of termite damage as

			wooden structures located nearer ground level. Look for cracks on ceilings and cornices. • Foundation damage: The type of foundation has a big impact on how easy it may be for termites to gain entry in search of food. Although a lot of foundations nowadays are made of concrete-they are able to aqueeze into any crack within these concrete blocks and from there gain access to floor joists, which are still made out of wood. In case of extension of building, laying a chemical termites barrier beneath the concrete slab in order to prevent termites from travelling through foundation cracks. Homes with crawl spaces appear to be at greater risk of damage as their

			foundations are still tradionally made out of wood. • Damage Roof Tiles: Access moisture in home due to loose, broken or damp roof tiles can attract termites. Broken roof tiles are a great source of moisture, which will attract termites and allow them access further inside home. Once inside, termites are able to maneuver through a property easily and attack and eat away at wood components in all locations. Replace any damaged or water-logged roof tiles to avoid make roof a haven for termites.
THE PIED PIPER- TERMITE DETECTION PROS/ PEST CONTROL TECHNOLOGY (PCT)		2. PRELIMINARY CONSTRUCTIONAL OPERATIONS 2.1 Presence of Termites	New Addition 2.1.2 Termite Detection Radar: Termite Detection system is detection tool that

			can precisely detect termites without penetration into the walls, floors or ceilings. This can help remove the need for post-inspection repairs. By utilizing this technology, the risk of disruption and displacement of a termite colony is decreased to provide more targeted termite treatments. 2.1.3 Remote Thermal Sensor with Laser Guide: Active termites will often generate a significant amount of heat within the walls of a structure. To help detect termite activity in suspect locations and trace termite nests or entry points. 2.1.4 Moisture Meter/ Sensor: Termites need moisture sources to ensure their survival. For this

			reason, the detection of moisture sources is critical for proper detection of termite prone locations throughout the structure. A moisture meter can locate areas of high moisture that are often associated with termites and other wood infesting pests in joists, sills, rafters and other wood or in other materials. Some meters use pins that are inserted into wood while others measure moisture remotely without making pinholes when they are placed against a surface(induction or impedence). In areas without moisture problems, moisture level in heated living areas usually range between 5 % and 10 % percent. In unheated areas and crawlspaces from 12 % to 19 %. Moisture levels above 20 % signal trouble. The Bluetooth connectivity of this handheld device allows to

			accurately detect termites in the most confined or inaccessible areas. This Bluetooth connectivity also allows data readings and reports to be stored easily with an android device for later analysis. 2.1.5 Borescope: Borescopes are fiber-optic probes that allow visual inspection through a 7 mm to 12 mm drill hole. They can enable to see termite tubes, galleries and carton inside wall voids, but are limited by insulation in walls and the fact that many holes are necessary to fully inspect a structure. 2.1.6 Other High-Tech Equipment: High-tech detection equipment includes sound equipment (ranging from inexpensive

			stethoscope to sound amplification systems similar to those used by security firms), methane detectors for termite activity and microwave sensing devices.
Hi Care- Tips to identify and control the termites		2. PRELIMINARY CONSTRUCTIONAL OPERATIONS	New Addition 2.5 • Ensure proper ventilation • Reduce moisture levels
ORION PEST SOLUTIONS PVT LTD / ORKIN /PESTS/TERMITES/COLONY		APPENDIX A (Clause 0.3) A SHORT ON TERMITE A-1. CLASSIFICATION	Addition in existing A-1 CLASSIFICATION • Indian Subterranean Termites (Coptotermes gastroi)- The Hidden Invader: The Indian Subterranean Termite, scientifically known as Coptotermes gestroi, is a highly destructive termite species commonly found in India. These termites build their nests underground and establish

			extensive colonies, making them difficult to detect until significant damage has occurred. They primarily feed on wood and cellulose-based materials, posing a serious threat to wooden structures, furniture and even books identifying the presence of Indian Subterranean Termites may require professional assistance, as they often create mud tubes for protection while foraging. • Eastern Subterranean Termite (Reticulitermes flavipes)- A Widespread Nuisance: The Eastern Subterranean Termite, Reticulitermes flavipes, is one of the most common termite species found across India. They are known for their extensive tunneling capabilities,

			allowing them to travel long distances and access valuable wooden structures. These termites typically build their nests in soil or wood, making them versatile and adaptable. Signs of an Eastern Subterranean Termite infestation may include the presence of mud tubes, discarded wings or wood damage. Early detection and prompt action are crucial in effectively managing these termites. A-1.4.1 Termite colonies live in nests or mounds that they build themselves. Termite nests are extremely large, spreading over a 50 to 100 meter radius. Subterranean termites require an

			association with continous and a lot of moisture, so they build their nests in underground soil. The nests may be located between 4 to 18 inches or more underground and are made up of several rooms, called galleries. These galleries are connected by tunnels made of mud. The tunnels not only connect galleries, but also connect the termites to food sources. Subterranean termite foraging area may involve ½ acre and workers may forage more than 250 feet from one spot to another. A-1.4.2 Drywood termites are apty named, as dry wood is exactly where they prefer to live. They do not need much moisture to survive, so it is

			not necessary for the wood they inhabit to be close to or connected to the ground and thus remain moist. As drywood termites inhabit and feed off the wood, they create maze-like tunnels from the inside out. A-1.4.3 Dampwood termites do not require contact with the soil to obtain moisture, but do require environments with more moisture than their drywood counterparts. They prefer to infest wet, rotting wood that is close to the ground. Dampwood termites often pose a problem in wood that may already be affected by wood decaying microorganisms such as fungi. They may choose to infest wooden structures in case of leaking

			roof, plumbing issues or other water related damage. A-1.4.4 Formosan termites, a species of subterranean termite, build the largest nests of any termite species. Due to their colony size, which can contain millions of termites, Formosan termites cause the most damage of any termite species. Formosan termites can build nests both above and below ground. Above ground, these nests are called cartons. Cartons are formed from soil mixed with chewed and unchewed wood and can be found in the walls of homes. A-1.4.5 Termite mounds are above- ground

			structures made from termite fecal matter, saliva and mud. They are built by termite species in hot climates and are designed to protect termites from scorching temperatures.

ii) Status of standards referred in the IS

Referred standards (No. & Title)	IS No. of this standards since revised	Changes that are of affecting the standard under review	Action proposed

iii) Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard)

Standard (No. & Title)	Provisions that could be relevant while reviewing the IS	Action proposed

iv) Technical comments on the standard received, if any

Source	Clause of IS	Comment	Action proposed

v) Information available on technical developments that have taken place (on product/processes/practices/use or application/testing/input materials, etc)

Source	Development	Relevant clause of the IS under	Action proposed

		review that is likely to be impacted (Clause & IS No.)	

vi) Issues arising out of changes in any related IS or due to formulation of new Indian Standard

Related IS and its Title (revised or new)	**Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision**	**Changes that may be necessary in the Standards under review**	**Action proposed**

vii) Any consequential changes to be considered in other IS

Related IS to get impacted	**Related IS Title**	**Requirements to be impacted**

6. Any other observation:

7. Recommendations:

To refer the following segment for the proposed for the proposed changes marked in red.