Electrical Equipment - Inspect, Test and Tag

The *Occupational Health and Safety Act 1989* places a duty of care to provide a safe work place. Failure to maintain electrical equipment in a safe condition, or to use equipment in accordance with manufacturer's instructions may result in injury or death to yourself, employees, or other parties.

To meet the duty of care it is necessary to ensure that risk of injury from electric shock for all people at the workplace is reduced as far as is reasonably practicable. A method of achieving this duty is by testing and tagging electrical equipment, and implementing procedures for use of electrical equipment.

Inspection and testing

Electrical equipment needs to be inspected and tagged on a regular basis. Inspections are to be carried out by a licensed electrician or a person certified as competent to undertake the testing.

Inspection and testing needs to be in accordance with the performance specifications of:

- Australian Standard 3760: 2003 In-service safety inspection and testing of electrical equipment.
- Australian Standard 3012: 2003 Electrical Installations – Construction and demolition sites.
- Australian Standard 3002: 2002 Electrical Installations – Shows and carnivals.

In-Service procedures

Where applicable, in-service testing and inspection shall include:

- External inspection of the equipment and the connecting facilities (eg flexible supply cord);
- Protective earth continuity tests for Class 1 equipment, power boards and cord sets;
- Insulation testing, which may be achieved by measuring insulation resistance, or leakage current; and
- Confirmation of the correct polarity of live connections in cord sets with re-wireable plugs and cord extension sockets.
- Checks for damage to flexible supply cords that include:
- The inner cores of flexible supply cords are not exposed or twisted;
- The external sheaths of flexible supply cords are not cut, abraded, twisted, or damaged to such an extent that the insulation of the inner cores is visible; and
- Unprotected conductors or the use of banding insulation tape are not in evidence.

Note: Refer to AS 3760:2003, 2.3.2 for more information relating to Physical Inspection of electrical equipment.

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Compliant equipment

Following testing, compliant equipment shall be fitted with a durable, non-reusable, non-metallic tag or other indicator.

Note: This does not preclude tags from also bearing a code to facilitate electronic data collection.

A Residual Current Device (RCD) or safety switch should be used at the commencement of the supply to all extension leads and portable electrical equipment or appliances.

Refer to AS 3760:2003, 2.3.3.4 – Testing requirements for RCDs.

Additional procedures

Operators should be appropriately trained in the use of the electrical equipment and familiar with the relevant Australian Standard for the location and type of work performed.

All machine guards must be in place, and equipment operation complies with safety procedures.

All personnel should use the appropriate Personal Protective Equipment (PPE).

Unsafe equipment.

To meet your duty of care under the *Occupational Health and Safety Act 1989* and to comply with the Australian Standard 3760:2003, equipment that may be unsafe should be withdrawn immediately from service and have a label attached warning against further use.

Arrangements should be made, as soon as possible, for such equipment to be disposed, destroyed, or repaired by an authorised repair agent or competent person. The owner or person responsible for the safety of the site shall determine the choice of remedial action, disposal or other corrective action.

Further Information

Electrical Regulation Section, ACT Planning and Land Authority, Phone: 6207 7161.

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