Creating A Non Hostile Electrical Work Environment

by Tested & True ~ test & tag Adelaide

A ***Non Hostile Environment*** is a workplace that is dry, clean, well organised and free of operating conditions that may result in damage to electrical equipment or the flexible supply cord. These measures are to be applied to ALL areas wherever possible.

Electric Shock

- State regulations require all cases of electric shock and damage to property from electrical incidents to be reported, so that the cause of the shock/damage can be investigated and corrected.
- Staff working on live electrical equipment need to be familiar with cardio-pulmonary resuscitation techniques.

Extension Leads

- Run extension cords and power leads around the walls and around the backs of desks.
- Do not run cords across walk or trafficable areas, under chairs or furniture, under carpets or between rooms.
- Use heavy duty extension cords outdoors and use a residual current device (RCD) for personal protection.
- Do not squash extension cords between furniture, walls, and windows.
- Keep cords away from hot or wet surfaces.
- Look to see that cords are in good condition. Discolouration can indicate overheating due to overloading which needs to be reported and checked to see if it still safe to use.
- Extension leads and power cords are separate electrical items and need to be tested as separate items to ensure they have been wired correctly.
- Even leads with moulded plugs and sockets may have manufacturing defects and should be checked for correct wiring.
- To help reduce subsequent testing costs, tested leads can be attached to a portable electrical appliance and tested as an integral part of the item, providing a visual inspection is still done of the lead.
- If a lead is cut or damaged it must be replaced unless it can be repaired by a suitably licensed person.

Electrical Appliances

- All electrical appliances used on the premises must be visually inspected and tagged before use.
- All users of electrical appliances should conduct a visual check of equipment they are about to use to ensure it is safe to use. Most faults with electrical appliances can be detected with a visual inspection.
- Switch off and if safe, unplug any faulty or suspect electrical appliance, do not continue to use it, place a label on it showing it is faulty and report it

so it can be tested, repaired or replaced.

- Do not use portable electrical appliances where they may become wet or have liquid spilt on or into them.
- Switch off and unplug any wet appliance or lead if safe to do so.
- Do not remove any fixed covers from portable electrical appliances as there is a high risk of electric shock occurring if the appliance is plugged in while the covers are removed.
- Only use portable electrical appliances for the task they were designed for.
- Try not to overload power points and power boards. As a guide, high wattage devices such as electric heaters and jugs should have their own power point as they typically draw half to three quarters the capacity of the power point, so when used in conjunction with several other appliances, they could blow a fuse or trip a circuit breaker, or cause a fire.
- Users shall ensure *electrical equipment* has a current tag attached before using the equipment. If no tag is attached or if the equipment is overdue for inspection/testing it is the user's responsibility to ensure that this is done.
- If you purchase new electrical equipment from Australian manufacturers or from importers and the equipment has approval markings or overseas equivalent such as CE (Conformité Européenne,) for Europe or UL (Underwriters Laboratories) for USA, the equipment can be used in a non hostile environment without any electrical testing being required, providing it has had a tag attached by a competent person after a visual inspection has occurred and it has determined that the equipment has not been damaged.
- The "Tagging" is a mandatory requirement under AS/NZS 3760:2003 section 1.2.1
- If an electrical appliance is moved into an area where the risk assessment is hostile, such as a laboratory or workshop, the appliance will have to be tested and tagged in accordance with AS/NZS 3760:2003.
- If an electrical appliance is faulty and has to be repaired, the appliance will have to be tested and tagged in accordance with AS/NZS 3760: 2003. before it can be returned to the non hostile environment, with its retest period being set as not required as it will be receiving annual visual inspections as part of workplace safety inspections.

Lighting and Heating

- Halogen desk lamps are hot when operating and can become a fire risk if flammable materials come into contact with them, such as curtains or paper.
- Consider using a compact fluorescent as a cooler alternative to a halogen lamp.
- Compact Fluorescent lamps overheat if put in an enclosed light fitting so ensure there is adequate ventilation.
- Never leave your office with appliances such as heaters operating.
- Portable fan-heaters (1500W maximum) with 60 minute timers only may be used in areas where no air conditioning or heating is provided.

Overhead Power Lines

- Be aware of overhead power lines and the risk they pose for work involving cranes, boat masts, height access equipment, and ladders.

Power Boards

- All power boards used on the premises need to have overload protection fitted.
- Switch off appliances before unplugging from power boards or use power boards with built in switches.
- Place power boards in ventilated areas, keep them free of dust and dirt and off the floor wherever possible to stop liquid entry and keeps leads tidy.
- Double adaptors and similar are NOT to be used as they have no overload protection.
- Piggy back plugs are allowed but power boards are preferred DO NOT Stack Piggy back plugs on top of each other.

Power Points

- Make sure that all power points have Earth Leakage Circuit Breakers (ELCB) or Safety Switches fitted and are labelled to indicate what type of protection is in use and to which circuit the power point is connected.
- Contact Facilities Management to have power points labeled and residual current device or safety switch outlets tested.
- Make sure that plugs are pushed fully into the socket, so that no part of the pins are exposed.
- Report any damaged power points so they can be repaired.
- To avoid a shock, switch off power points before plugging and unplugging appliances.
- Remove appliances from the power point by holding the plug, not by pulling the cord

Safety and Health Induction

- Electrical safety should be included in the general safety and health induction conducted for all new staff, students (as applicable) and contractors.
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