Tagging across the nation

Testing and tagging is one element of electrical safety that has caused confusion and controversy since its inception, writes Appliance Tagging Services business development manager Sarah Allen.

Even in a non-construction environment, up to 10% of appliances fail first round testing, and many of these appliances have the potential to kill.

Many people believe testing and tagging to be an important part of a comprehensive electrical safety management system, some people believe it to be a waste of time and simply an on-cost to businesses across Australia, and then there are those that believe it to be important only in a construction environment. But the facts remain, even in a non-construction environment, up to 10% of appliances fail first round testing, and many of these appliances have the potential to kill.

The Standard that applies in this area – AS/NZS 3760:2003 *In-Service Safety Inspection and Testing of Electrical Equipment* – specifies the safety inspection and maintenance standards for Australia and New Zealand, and can assist in complying with OH&S legislation. It is vital to remember that the Standard should be read in conjunction with State-specific legislation as testing and retesting requirements detailed in legislation vary from State to State.

Many people have been caught out with a 'one size fits all' approach to testing and tagging. For example, NSW legislation specifies monthly testing in a commercial construction environment, and unscrupulous test and tag providers have been known to recommend this practice Nationally.

So, what are the actual requirements?

In Victoria, the OH&S Act 2004 specifies that "An employer, so far as reasonably practicable, provide and maintain for employees a working environment that is safe and without risk to health". The Victorian Electrical Safety Act 1998 also states that all second-hand equipment being made available for sale must be inspected, tested and tagged prior to sale. Similar legislation also exists in Tasmania.

NSW OH&S Regulations 2001 are far more prescribed, and the regulations were taken so much to heart by some businesses, that an amendment to the OH&S regulations was issued in 2006 to clarify which appliances and environments need to be part of an ongoing testing and tagging program. The NSW regulations now state all appliances located in a construction environment and a hostile operating environment must be inspected, tested and tagged regularly by a competent person and a record maintained of the testing. All items not located in these environments should be the subject of a documented risk assessment, which may in fact recommend the testing and tagging of the appliance.

In Queensland, a whole article could be written on the complexity and intricacies of testing and tagging. The legislation surrounding testing and tagging is covered by the Electrical Safety Act 2002 and the amendment issued in 2006, and is exceptionally detailed. QLD legislation is based on six 'classes of work', and dictates the

retest frequencies associated with the testing of appliances within each class of work. The six classes are categorised as construction, manufacturing, office, service, amusement and rural industry work. The legislation also specifies the requirements of RCD installation and testing under AS/NZS 3760, along with requirements surrounding double adaptors and piggy back plugs for different classes of work.

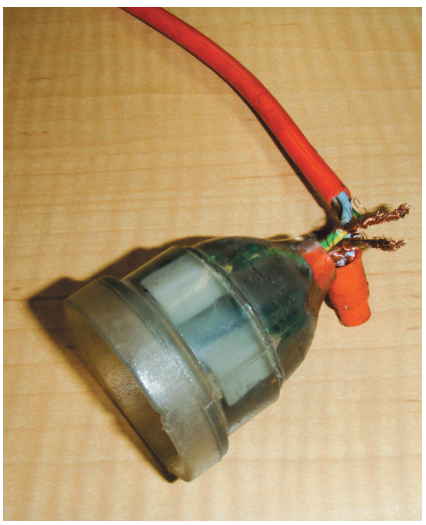
In addition, it is also a requirement under the QLD Electrical Safety Act for a test and tag service provider to hold a restricted electrical contractors licence and for all technicians to have successfully completed a nationally-recognised competency-based test and tag course.

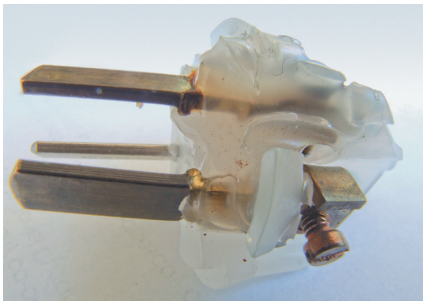
The South Australian OHS&W Act 1986 discusses that employers are required, as far a reasonably practicable, to provide a safe working environment for each employee. The OHS&W Regulations 1995 also discuss the regular testing of RCDs in accordance with AS/NZS 3760.

Similar legislation exists in WA where RCD testing is required to be completed by a licensed electrical worker.

Much mention is made in legislation of RCDs and their installation and testing. It is important to note that the installation and use of an RCD is not a fail-safe method of providing an electrically safe workplace. Yes, an RCD is an important as part of an overall strategy to reduce risks and, when operating correctly, an RCD can and will save lives. An RCD is designed to detect leakage from an electrical circuit and will only trip should leakage be detected. This suggests that in order for an RCD to trip, a worker could potentially be on the receiving end of an electric shock. The severity of this shock will be determined by the speed at which the RCD trips.

Any experienced test and tag provider knows that regardless of the State and type of industry, the majority of items fail visual testing alone. The first step in the test and tag process is for each item to be examined visually for defects and faults, and an appliance is only ever electrically tested after it has passed this visual test. The majority of items that fail this visual test are still in use, and often the user of the equipment is horrified that it has been deemed no longer safe to use.





The first step in the test and tag process is for each item to be examined visually for defects and faults. The majority of items that fail this visual test are still in use, and often the user of the equipment is horrified that it has been deemed no longer safe to use.

For example, recently a technician failed an extension lead that was in use in a primary school. This lead was running across a children's playground, and the active, earth and neutral wires to the plug were all visible at the plug end. Despite the ease at which a plug could be repaired or even made safe using connectors, base wires were visible and could be easily touched. Upon removing this item from service, the staff member in charge at the time was horrified as it was "not near a puddle" and "should be OK to use".

I often use the example of a dripping tap when it comes to explaining the importance of electrical safety to people. A dripping tap is noticeable, not life threatening, but noticeable. The tap will drip faster and faster until it gets fixed, and usually it is repaired before the washers are completely destroyed. Unlike water, electricity is not visible. Most people don't really understand it, and most people have an "it won't happen to me" attitude when it comes to electric shock.

We had a client explain to us recently that she thought the radio we failed because of exposed wiring at the rear of the unit was safe to use. Her pet rabbit, who had been gnawing on the lead over the last few months when it was in operation, had met with no harm when he bit it, so she had assumed that it was safe to use.

When it comes to workplace safety, all employers have an obligation to provide a safe workplace. This is regardless of the attitudes and misconceptions of their staff with regards to electricity, and their sometimes blatant disregard of the seriousness of an electric shock.

In future columns we will look at the variety of test equipment currently available on the market, some of the more common mistakes made by both technicians and electricians when conducting testing and tagging, what you should be looking for when you are choosing a quality test and tag service provider, and take a closer look at the current review of AS/NZS 3760 and the resulting changes to the Standard. ■

Appliance Tagging Services
1300 287 669
sarah@atservices.com.au
www.appliancetaggingservices.com.au