

# MELBOURNE SCHOOL OF ENGINEERING SAFETY BULLETIN

8<sup>th</sup> October 2015

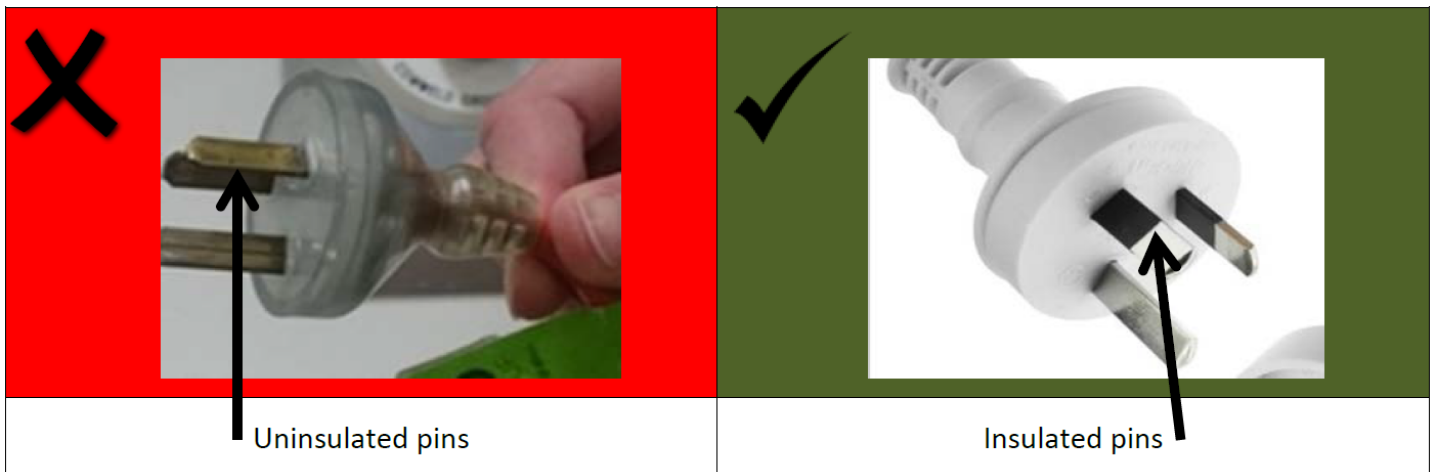
## Topic: Un-insulated 240 volt electrical appliance plugs

### Issue:

The School of Engineering and a number of other Faculties across the University have had recent near miss incidents involving the unplugging of electrical plugs on portable electrical appliances.

In each of these incidents it was identified that the electrical plugs had un-insulated pins (see diagram below) and this was a significant causal factor of the incident.

Since April 2005, all 240 volt electrical appliances sold in Victoria are required to have insulated electrical plugs. Prior to this date most electrical appliances would have been sold with un-insulated plugs.



### Control Measures:

#### 1. Standard Operating Procedure

The University has published a Standard Operating Procedure (SOP) for electrical appliances

<http://safety.unimelb.edu.au/docs/standard-operating-procedures-for-electrical-appliances.pdf#page=2&zoom=auto,-274,834> that includes instructions on;

- Inspecting plugs before use,
- Connecting and disconnecting electrical appliances,
- What to do with damaged electrical appliances,
- What to do with appliances that have un-insulated plugs.

#### 2. What to do with appliances that have un-insulated plugs

If you become aware of an electrical appliance that does not have an insulated plug:

- Was it recently purchased? If so,
  - Do not use, "tag it out" as per Section 5 of the SOP listed above.
  - Notify the supplier that it does not conform to Australian Standard AS3112 and request they replace the item with an insulated plug OR accept a return and refund your money.
- If the age of the item is indeterminable;

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- Assess the risk or contact with the un-insulated pins, taking into account
  - Is it regularly plugged into/un-plugged from a socket?
  - Is there the potential for accidental/partial un-plugging from the socket?
  - Is the appliance used in wet or dusty environments?
  - Can someone (or something) touch the plug pins if the plug is partially disconnected?

Some examples of appliances that potentially have un-insulated pins but are low risk include:

- Fridges,
- Microwaves,
- Desk top computers,
- Lab equipment that is always plugged in.

The most common type of appliances that potentially have un-insulated pins and may be high risk include:

- Lab equipment that is regularly plugged in / un-plugged from sockets,
- Kitchen equipment that is regularly plugged in / un-plugged from sockets.

If an appliance with an un-insulated plug has been risk assessed and determined there is a risk of an electrical incident;

- Do not use, “tag it out” as per Section 5 of the SOP listed above.
- Arrange to have the plug changed to an insulated type by submitting a Maintenance Request <http://830s-beims-webp.its.unimelb.edu.au/BEIMSSRS>

### **3. Annual Testing & Tagging of portable electrical appliances**

The contractors who undertake then annual Testing & Tagging of portable electrical appliances will place stickers on the power cord of any appliance that has an un-insulated plug so that local users can readily identify these items and assess whether the plug should be changed to an insulated type, using the risk assessment criteria set out above.

### **4. Testing & Tagging conducted by the Engineering Workshop**

Where portable electrical appliances are requested to be tested or repaired by the Engineering Workshop as per [MSE OHS Procedure 10-011 Portable electrical equipment](#), appliances found to have an un-insulated plug will have the plug replaced free of charge. (NOTE: There will be a minimum 7 day turn-around time for replacement of plugs).

This service is only available for appliances that are repaired by the Engineering Workshop or student owned items as described in Section 3 of MSE OHS Procedure 10-011. All other requests for plug changes need to be submitted via a Maintenance Request.