Handout 4

Instructions to the Electrical Department

The following items of PPE are to be worn by all personnel, at all times whilst working in the electrical department irrespective of whether electrical related hazards are present in the tasks that are being undertaken:

- safety helmet,
- long sleeved high visibility (day visibility) shirt (100% cotton – 185 grams/m2)
- long pants (100% cotton - 185 grams/m2),
- safety footwear,
- safety glasses in and around plant, and designated workshop areas, and
- ear plugs/muffs in designated hearing protection areas

Personal protective equipment (PPE) additional to the items listed above is to be used and selected in accordance with a JSEA developed for the activity. Working near energised exposed parts requires specialised PPE to be worn. Protective clothing worn by electrical workers when working live and/or others in proximity to exposed energised conductors shall be appropriate for the purpose, fit correctly and be in good condition while the work is being performed.

To protect personnel from electrical hazards, each Power Station is to provide a supply of personal protective equipment that is maintained and tested in accordance with the Australian Standards.

Personnel required to wear items of PPE are not to modify, damage or use PPE in a way contrary to manufacturer's instructions or the training provided for that particular item of PPE.

Items of PPE that are defective or out of test date are to be immediately withdrawn from service and tagged as out of service until repaired and/or tested by a competent person. During the performance of live electrical work, testing de-energised, fault finding or when in close proximity to energised exposed parts, personnel are not to wear or carry conductive items such as pens, mobile phones, radios, tools (unless suitably insulated), metal belt buckles, buttons, chains, studs, jewellery, body piercing, metal rimmed glasses, bracelets, rings, neck chains, exposed metal zips, watches, etc.

NOTE: Wedding rings may be worn provided they do not have sharp edges or protrusions and are suitably insulated by wearing insulated gloves.
When working live, testing to prove de-energised, fault finding, commissioning, as a safety observer or in proximity to energised conductors electrical workers and others are to wear suitable flame retardant/arc flash protective clothing.

Guidance on the correct personal protective equipment to be worn when working on electrical equipment is provided in Attachment 1 – Electrical Safety Personal Protective Equipment.
Arc flash energies are to be managed for electrical work and the selection of correct ppe is to be addressed based on the identified arc flash energies (ATPV) for the electrical equipment being isolated, tested or worked on. Other measures to control the risk may include working at a greater distance from the incident arc source, using longer handles to rack out equipment, using remote isolation or test equipment and modifying protection settings by engineering to reduce the arc flash potential energy. These options are to be addressed in the JSEA for the work involved.

In some instances design of switchboard cubicles may include enclosed switchgear that has been rated for arc flash incidents. In those instances where the switchgear cubicle is designed and rated for arc flash energies is work on the cubicles with the doors closed would only require Level 1 rated PPE.