



## Title: Working in Load Centres and Vaults

**Approved:** August 20, 2004

**Review Frequency:** Yearly

**Procedure Type:** Underground

**Reason for Review:** Yearly Requirement

**Final Approver:** Mr. In charge

**Primary Audience:** Operations

### PURPOSE:

This Safe Work Procedure has been developed to allow various "Hands-On" work applications to be performed once a safe work area has been established at Load Centres and Vaults. The work applications to be considered would be installations, maintenance or trouble-shooting.

### REQUIREMENTS:

All personal protective equipment required to work on energized apparatus, live line tools and equipment for moving fibre boards and fuse barrels (if needed), full line potential indicator, temporary grounds for de-energizing purposes and a heat gun for specific jobs. A Hold-Off shall be considered during switching operations and in addition any planned work must be done under a Work Permit and with a written tailboard sheet.

### RATINGS AND CLARIFICATIONS:

The term "Hands-On" is intended to define work methods that are done **without** live line tools.

### JOB STEPS:

#### General

1. Contact control or a supervisor regarding status of equipment, switching procedure, hold off requirements and issuance of a Work Permit.
2. Confirm information as to location and nomenclature.
3. Perform switching operation and place Tags (Work Permit) or confirm status of switching operation and placement of tags done on your behalf. This to be done with an Order to Operate. Control to be informed of operations.
4. Upon completion of switching for isolation of equipment to be worked on, perform testing procedures to verify potential indicator and then to prove isolation. Install fibre barrier(s) between live and isolated apparatus.
5. Contact Control for issuance of Work Permit. Accept and document Work Permit number.
6. Install temporary grounds at "all" locations that will be considered as a source of energy. Note: If the work is to be done under an existing Work Permit in effect, verify all isolation points and install grounds.
7. Review written Tailboard with Work Group(s) and prepare to perform planned job. Secure area with appropriate "guarding".

**Title: Working in Load Centres and Vaults****8. Total Isolation of Load Centre or Vault:**

This is to be the preferred work method for any “hands-on” cable work. Open required cabinet(s), verify nomenclature, perform potential test and install “proof ground” at all locations to be worked on. The “proof ground” is done as a last check prior to working on the de-energized apparatus.

NOTE: SHOULD ANY SWITCHGEAR BE SCADA CONNECTED IT MUST BE PLACED IN LOCAL CONTROL, THE DC PLACED IN THE “OFF POSITION”, THE 120 VOLT AC SUPPLIED DISABLED OR DISCONNECTED AT SOURCE AND THE MOTOR OPERATOR DECOUPLED.

**9. Partial Isolation of Load Centre or Vault:**

This would include maintenance, cable testing or performing work downstream from the Load Centre or Vault such as cable splicing. Open required cabinet(s), prove potential indicator on known live equipment and then verify isolation. The sequence for the removal of the fuse barrels is to open and remove then insert the fibre barrier. Repeat process until all barrels have been removed and fiber barriers have been installed. Then install temporary grounds or “proof ground”. If barriers are not installed and “Hands-On” work is to be done, the load centre must be totally isolated.

NOTE: SHOULD HANDS-ON WORK BE REQUIRED AT THIS LOCATION A HEAT GUN SHALL BE USED ON THE ENERGIZED APPARATUS PRIOR TO INSTALLING FIBER BARRIERS. THE BARRIERS ARE TO BE VISUALLY INSPECTED, WIPED DOWN OR CUSTOM BARRIERS MAY BE USED.

10. Upon completion of job ensure all nomenclature is in place, connections checked, tools removed and temporary grounds removed.
11. Contact Control to surrender Work Permit and update on system status.
12. Ensure any system information such as new nomenclature, equipment changes etc. are forwarded on to the correct person or appropriate Department.