

# ETU OHS REPS NEWSLETTER



## NEUTRAL LINK—LIVE PART

A question was asked recently at an Occupational Health and Safety Representatives meeting about what requirements applied to working on switchboards in regards to the neutral link.

Put simply, we first need to establish the status of a neutral link that is connected to supply.

The Wiring Rules requires:

### 1.4.63 Live part

*A conductor or conductive part intended to be energized in normal use, including a neutral conductor and conductive parts connected to a neutral conductor.*

*NOTE: Under the multiple earthed neutral (MEN) earthing system this term does not apply to the following:*

- (a) Earthing conductors.*
- (b) The MEN connection and the neutral bar or link at which the MEN connection is made.*
- (c) The neutral bar or link in a switchboard without an MEN connection where the active supply to the switchboard has been isolated.*
- (d) The sheath of an MIMS cable and associated conductive fittings used as a combined protective earthing and neutral (PEN) conductor in an earth sheath return (ESR) system.*
- (e) Conductive supports and enclosures associated with an unprotected consumers mains that are earthed in accordance with Clause 5.5.3.5.*

### 2.9.3.1 Access to live parts

*Live parts shall be arranged so that basic protection is provided by enclosures, in*

*accordance with the provisions of Clause 1.5.4.*

*Exception: Live parts may be exposed in a non- domestic electrical installation provided that—*

*1) the live parts are arranged so that basic protection is provided by barriers in accordance with the provisions of Clause 1.5.4.4; or*

*2) the switchboard is installed in an area that is accessible only to authorized persons and the means of access to such areas is provided with facilities for locking.*

*In situations where the removal of covers and the like exposes live parts such covers shall be identified in accordance with AS/NZS 3439.*

*Exception: This requirement does not apply to domestic switchboards.*

From the information above it can be determined that in relation to a neutral link (c), the link is not deemed to be a live part if there is no active supply to the switchboard (*i.e. when supply is isolated*).

It also needs to be considered where the neutral link is located, *e.g. where the MEN is established upstream of the main switchboard in accordance with Clause 5.3.5.1 at the MEN connection made at an earth bar or link within a substation.*

### Control Measures

1. Ensure supply to switchboard is effectively isolated (tagged out/locked out) upstream of switchboard.
2. Test between neutral link and earth bar re difference in potential (voltage), and then connect a temporary bond between N link and E bar.

**NEWS**

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**2010 Calendar**

**EEIT OHS MEETING DATES**

10AM -12PM

Melbourne –

23rd June

25th August

20th October

**Held at:**

ETU Office

200 Arden Street  
North Melbourne

**OHS REP TRAINING**

Contact Tanya—0393269377 to book into the courses below.

**Initial 5 Day OHS REPS Course**

July 7, 8, 13, 14, 15

October 6, 7, 12, 13, 14

**1 Day Refresher OHS Rep Course**

Melbourne

July 21

October 27

Country

May 26 Morwell

July 28 Portland

September 22 Shepparton

November 24 Mildura



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