

# TCN 001 – 2013

## Exemption from Requirement to Provide RCD

### **Background**

Clause 2.6.3 of AS/NZS 3000:2007 (the Australian Wiring Rules) details the requirements for using Residual Current Device's (RCD's). RCD's are typically used to provide additional protection to electrical circuits to minimise the risk of electric shock.

The use of RCD's in certain types of electrical installations is mandatory under the requirements AS/NZS 3000:2007.

### **Exemption for Traffic Signal Installations**

However, under certain circumstances, as defined under Clause 2.6.3.2, an exemption may be applied to the use of RCD's.

*Clause 2.6.3.2*

*Exception: This requirement does not apply: .....*

- 5. Where the disconnection of a circuit by an RCD could cause a danger greater than earth leakage current.*

The disconnection of the mains power circuit to a traffic signal controller, creating an uncontrolled intersection, is deemed to cause a potentially greater risk than earth leakage current.

This exemption has been confirmed by Energysafe Victoria. See the attached letter from Energy Safe.

It must be noted however, that this exemption ONLY applies to the traffic signals. The socket outlet provided in the controller MUST be a type that includes an integral RCD.

For further information contact Stephen Purtill on 9854 2111.

→ S. Purcell,



Ex: X-54887/1s  
4 February 2009

Mr Steve Bean  
Acting Director – Road User Services  
Vic Roads  
60 Denmark Street  
KEW VIC 3101

Dear Mr Bean,

**EXEMPTION: RCD'S CONTROLLING SUPPLY TO TRAFFIC SIGNAL INSTALLATIONS**

I refer to your correspondence, received 29 January 2009, wherein application is made in accordance with Regulation 416 of the Electricity Safety (Installations) Regulations 1999 for permission to depart from strict compliance with Clause 2.6.3.2 of AS/NZS 3000:2007 (Electrical Installations – known as the Wiring Rules).

Your application, relating to general exemption for all traffic signals installations, is in respect of the following requirements now mandated by the current edition of the Wiring Rules:

*Residual Current Devices (RCD's) provision for final sub-circuits supplying external lighting installations having a rated current not exceeding 20 amps – Clause 2.6.3.2*

I understand from your application that you have had previous exemption from Energy Safe Victoria dated 28 October 2005 in relation to providing additional protection by residual current devices.

In reply, you are advised that your request for exemption is not required because there are provisions in AS/NZS 3000:2000 Clause 2.6.3.2. Exception 5 which provides for the omission of RCD's where the disconnection of the circuit by an RCD could cause a danger greater than earth leakage current.

It must also be noted that all electrical equipment associated with the traffic lights installations but not directly effecting the operation of the traffic lights, must be RCD protected in accord with Clause 2.6.3.2 of AS/NZS 3000:2007.

If you require any further information on this matter, please contact John Stolk via telephone (03) 9203 9746.

Yours sincerely

A handwritten signature in black ink, appearing to read "Ken Gardner".

Ken Gardner  
**DIRECTOR ENERGY SAFETY**

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