



These advisory notes are issued as and when is necessary to assist in the interpretation of Tasmanian building legislation and to keep the Industry informed of developments occurring with the Building Code of Australia and its reference documents.

New electrical wiring rules - bonding of reinforcing in concrete walls and floors in showers and bathrooms

One of the requirements of the revised Australian Standard AS/NZS 3000:2007 Wiring Rules is for the bonding of the reinforcing within a concrete floor or wall forming part of a shower or bathroom to the earthing system of the electrical installation. Electrical contractors will now be connecting an earth (bonding) wire to the concrete reinforcing in floors or walls forming part of a shower or bathroom.

Clause 5.6.2.5 sets out the new requirement for showers and bathrooms

“Any conductive reinforcing within a concrete floor or wall forming part of a shower or bathroom shall be bonded to the earthing system of the electrical installation to avoid any potential differences that may occur between the conductive piping (including taps, drain, etc.) connected to, or in contact with, the electrical installation earthing system and the concrete floor or wall. An equipotential bonding conductor, in accordance with Clause 5.6.3, shall be connected between the reinforcing material and any part of the earthing system within the room.”

There are a number of ways compliance with the Standard can be achieved, either with a bar electrode or mesh section with earth wire tail, wire tied to the reinforcing or direct connection of an earth wire to the reinforcing within the concrete with the earth wire exiting the concrete through a conduit or by continuation of a section of the reinforcing outside the concrete where the earth wire can be terminated. The installation of this earth wire will be initially unfamiliar to builders and will require cooperation between builders and electrical contractors.

This requirement has been introduced to avoid any potential (voltage) difference that may occur between conductive piping or parts (taps, drains etc) connected to, or in contact with the electrical installation earthing system and the concrete floor or wall. The revised Standard was released in November 2007 and is mandatory from May 2008.

Details about the Wiring Standard are available from the Electricity Standards and Safety Branch of Workplace Standards Tasmania. Phone: 1300 366 322 (inside Tasmania) or (03) 6233 7657 (outside Tasmania).
Email: wstinfo@justice.tas.gov.au Web : www.wst.tas.gov.au

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