



Technical Bulletin

TB 0276 - Conduit Fire Sealing Alternative Products

Purpose

To provide additional products to be used by Endeavour Energy contractors for the protection of openings in fire-resistant separating elements of buildings, particularly containing Low Voltage AC and DC control cables in accordance with SDI 503.

Background

An incident involving an Electric Shock at an Endeavour Energy substation occurred while installing a wet-mix sub fire grout into conduits. Endeavour Energy safety alert 01-19 and Safety Bulletin 15-19 advised of outcomes of the initial investigation while a review of products used took place.

A review of products has taken place in consultation with Projects & Programs, HSE Systems (Environmental) and Transmission Civil Development.

Action

In accordance with SDI503 Clause 5.2, the conduit penetrations of Low Voltage AC and DC control cables must be filled with a two-hour (2-hour) fire rated (minimum) fire-stop product.

If the cables can be visually inspected and confirmed to be in good condition through to at least 300mm inside the conduit¹, the existing fire rated mortar can be used by Endeavour Energy

contractors for fire sealing of the conduit penetrations.

If the cables cannot be visually inspected through to at least 300mm inside the conduit and confirmed safe AND:

- Watertight sealing is not required in accordance with SDI531 Clause 5.3.3, the existing fire rated fire-board or alternatively, Hilti CFS-PL firestop plug (as shown in Figure 1) can be used.



Figure 1 Hilti CFS-PL firestop plug

- Watertight sealing is required in accordance with SDI531 Clause 5.3.3, Filoform FILOseal+HD FIRE duct sealing kit (as shown in figure 2) can be used.

¹ If insulation damage is found during the visual inspection, make safe and cease works until the damage is repaired.



Figure 2 Filoform FILOseal + HD FIRE duct sealing kit

All products must be installed in accordance with manufacturers guidelines to achieve the required fire rating, taking into account the condition of the conduit and cables as well as the products Safety Data Sheet.

Impacted Standards

These changes will be updated in the next release of the following standards:

- SDI503 Transmission and zone substation fire detection, control and suppression systems.
- SDI531 Installation of conduits in transmission/zone substations and switching stations.

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