

TECHNICAL BULLETIN

TB-0182

Placing ladders on pole mounted transformer fins

Background

This is to provide awareness of utilising ladders for access to pole substations for construction, maintenance and repairs. It specifically states that the resting of ladders directly onto transformer fins / radiators must cease.

Reference

The *Work Health and Safety Act* (the WHS Act) - "Code of Practice on how to manage the risk of falls in the workplace".

Actions

The practice of placing ladders against transformer fins must cease

The use of the uneven fin area as a support for a ladder is unsafe.

Modern transformer fins are not designed to withstand external pressures or damage. The transformer fins are constructed from steel that is much thinner than the transformer tank itself.

While this thin wall design provides more superior temperature dispersion and allows for expansion and contraction of oil in a sealed tank design it is not mechanically strong for certain dynamic and static external loads and pressure such as the resting of ladders.

Also due to this thin wall construction, if the protective coating is damaged, the rate of rust development could lead to quicker erosion of the thinner metal and produce oil leaks.

Some older transformers with pipe style fins/radiators may appear stronger but they are also not designed to take external pressure, especially around the welded joins, and due to their round construction, are not considered a stable surface.

Therefore when any work is required to be performed on the transformer or other associated equipment such as surge arresters, under no circumstances should the fin area be used to support a ladder.

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