

ASP Safety Alert Service & Installation Compliance

Alert Number: SA04_22

4 March 2022

Subject: No Live Work on Service Termination Boxes

Key messages

Work undertaken to disconnect a live underground service connection within a Service Termination Box (STB) has resulted in a phase to phase arc flash.

Ausgrid's NS199 standard 'Safe Electrical Work On Low Voltage Underground Assets' (clause 10.2) prohibits live work on Service Termination Boxes. Workers must not remove the cover from or perform any work on a Service Termination Box unless electricity supply to the box has been isolated.

Dear ASPs,

An incident has occurred while work was being undertaken to disconnect a service Underground to Overhead (UGOH) connection while live, at an underground STB that was mounted on an Ausgrid pole. During the disconnection process, a phase-to-phase arc flash has occurred. No one was injured and the incident is under investigation.



Figure 1: An example of a Service Termination Box

Extent of impact

These boxes were principally installed on or in customer premises several decades ago, when Ausgrid was converting certain areas from overhead mains supply to underground mains supply. (They contain the connection between the underground service mains and the consumer mains).

However, these boxes have also been installed outside of customer premises in Ausgrid's low voltage or street lighting distribution systems.

Due to the advanced age and possible deterioration of the electrical connections within many of these boxes, they pose a serious safety hazard to workers who remove the cover from the boxes whilst the conductors are energised. There is a high risk of a short circuit and electrical arcing occurring.

Immediate action to be taken

Workers must not remove the cover from or perform any work on a STB unless electricity supply to the box has been isolated.

Workers are reminded of the following requirements for all work on or near live exposed low voltage conductors.

- Workers must only carry out live tasks in accordance with the Ausgrid Electrical Safety Rules - Appendix A (see below):

Underground Mains	LV Pillars - various types	See page 3 of this Appendix	
	Pillar-Standards	See page 3 of this Appendix	
	Link boxes	Any work other than operating, testing/measurement, or connecting identification & phasing equipment	No
	Pits/bays	Work on or near exposed live LV in a cable pit or joint bay	No
		Work on or near exposed live LV in "pit & duct" systems (see page 3 of this Appendix)	
	Cables	Work on cores or sheath of CONSAC cable	No
		Work on underground cable with visible damage to the insulation	No
		Cable jointing in a cable pit or joint bay	No
		Carry out repairs to cable sheath	No
	Standards	Replace metallic streetlight standard/column	No
Points of connection	Work on bakelite service termination boxes on customer installations	No	
	Work on meter cabinets	No	

- In safety critical situations, you need to have 'courage to intervene' and should always stop work immediately if a task is being undertaken in an unsafe manner, including where work is being carried out live and you believe it should be carried out de-energised.

Ausgrid's Electrical Safety Rules and Appendix A can be accessed via the links below.

- [ESR](#)
- [Appendix A](#)

Please ensure this is communicated to your employees and sub-contractors who may be involved in this type of work.

Service & Installation Compliance

Ausgrid