

# SAFETY ALERT!



## Attention: All Unison employees

*Note- Audience identified above must stop work, discuss and complete sign off as soon as practicable.*

Subject	Inadvertent livening of shutdown area		
Alert Number	SA 127	Date Issued	1/07/2019
Issued by	UCSL Health and Safety Manager	Effective	Immediately

### SAFETY ISSUE/BACKGROUND

On 24 May 2019, a staff member received an electric shock whilst involved in pole replacement work in rural Hastings.

The work party (including the impacted individual) was working under a **shutdown** access permit 152003738.

Under the parameters of the access permit the 11Kv supply was isolated, proven de-energised and temporary earths applied either side of the work area.

The low voltage circuits were also tested and proven to be de-energised. Earths were not applied to the low voltage circuit.

Whilst carrying out work on a pole, the staff member experienced an electric shock. The employee attended hospital for a precautionary check-up and was subsequently cleared and discharged. The staff member was wearing rated/insulated gloves and tested/insulated boots at the time.

It was discovered that the source of the inadvertent livening was a private generator at a residence within the shutdown area. The generator had been **incorrectly** connected and subsequently 230v was back-fed into the permit area.

With more customers expected to install in-home generation in the future – managing multi directional power flows is an increasing risk for line workers. This risk is compounded where install work is sub-standard.

To mitigate the risk of inadvertent livening from customer installations, the following interim measures shall be immediately applied:

- All low voltage circuits (bare or insulated) must be bonded to earth either side of the work site (including ground-based work), with at least one set of earths within 5m (or as close as practicable) to each work position. **(Please note: this will apply when all equipment has arrived and been distributed)**
- Underground low voltage cable must be bonded to earth at the points of isolation. If this is not practicable, 'live techniques' including full cover ups must be used.
- Staff are reminded that the mandatory minimum PPE requirement during "shutdown work" includes insulating gloves and electrically tested boots. These must be worn "ground to ground" and any time conductors are being handled.
- Because ABC conductor is fully insulated and difficult to earth - 'live' work techniques shall be used when handling it during de-energised work.

To further strengthen control measures one of the following **must** be implemented:

- Insulated cover-up gear shall be applied to maintain **single points of contact**. Or
- Low voltage and service fuses removed, and neutral disconnected for domestic residential customers to guarantee positive isolation of supply.

Other measures to be taken by Unison are:

- Highlight to customers (via the planned shutdown notice) the requirement to contact Unison if they own a generator and intend to use it during an outage.
- If a customer notifies they plan to use a generator during a shutdown - the low voltage and service fuses must be removed, and for domestic residential customers, the neutral shall be disconnected.
- When planning work all possible sources of back feed must be considered and controls put in place to isolate from these sources where practicable.
- Further investigative work will be applied to underground services to provide similar appropriate protection from the risk of potential back feeding.
- Switching methodologies will be reassessed to potentially include additional steps to formalise these enhanced mitigations. This may include a permit system for Low Voltage work.
- A guide to LV de-energised works will be produced to assist in the training of employees in the required procedures.

Additional equipment [earthing leads and cover-up gear] has been ordered to achieve these control measures.

## ACTIONS REQUIRED

**Operations Managers/Supervisors must ensure that:**

- This safety alert is brought to the attention of all Unison employees and subcontractors.
- Positive confirmation of receipt of this safety alert by employees and contractors will be required. (See below)
- A copy of this safety alert is placed on all Unison Health and Safety notice boards.
- Operations Managers/Supervisors must ensure these measures are adhered to by observing activities and monitoring Worksite Safety plans.
- Works Performance Assessors will undertake a series of audits to ensure compliance.
- A guide is written, and training scheduled within 3 months of this safety alert being released.

Once the Safety Alert has been discussed with the identified audience they must complete this sign off form. Once the form is completed please return it to the Health and Safety Team.

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DATE	NAME	REGION	COMPANY	SIGNATURE
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