

Always test before applying earths to Overhead Line Equipment (OLE)

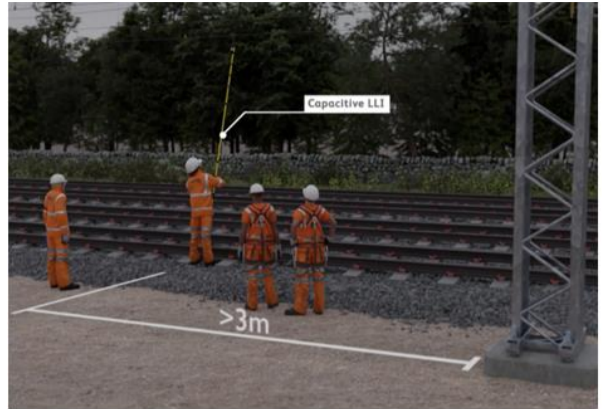
Issued to: **Network Rail line managers, safety professionals and accredited contractors**

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Contact: [Tom Kemp](#), Network Technical Head of Contact Systems AC/DC



Always test before applying earths or straps

Overview

There has been a recent increase in the number of isolation irregularities where portable earths have been incorrectly applied to live 25kV Overhead Line Equipment (OLE) conductors. This has the potential to cause serious injuries to the working group involved, and damage to the OLE which can disrupt planned train services.

Applying earths without first testing the OLE contradicts Network Rail standards NR/L3/ELP/29987 (and NR/L3/ELP/SAI25 where deployed). These mandate that before portable earths are applied, the OLE must be tested using an approved live line indicator to confirm the OLE conductor is de-energised. It is also a breach of the Life Saving Rule *'Always test before applying earths or straps'*.

Only live line indicators that are approved, calibrated and fit for their intended purpose may be used.

If using a capacitive live line indicator e.g. Arthur Flury or Pfisterer, testing must be conducted a minimum of 3 metres along the conductor from OLE structures and/or in-line insulation. Where this is not possible, a resistive type live line indicator must be used e.g. COTEC C31.

Only individuals who hold Authorised Person or Nominated Person competence may test and apply portable earths to the OLE.

Where a Nominated Person is using an Authorised Person to assist in implementing an OLE isolation, the Authorised Person must receive a brief on their planned duties and must retain the signed Switching, Testing and Earthing Details (STED) form.

When arriving at a location where portable earths are to be applied, it is imperative that you check the STED form to confirm you are:

- On the correct line
- At the correct OLE structure number
- Testing the correct conductor

In addition, the condition of the OLE infrastructure e.g. the earth attachment point, the structure-to-rail bond, aerial earth wire, etc. must be checked prior to the application of the portable earths.

Discussion points

- Do you always test the OLE before applying portable earths?
- Who would you raise any electrical concerns or issues with?
- How do you confirm you are at the right location before testing and applying portable earths?
- How do you confirm that the equipment used to implement an isolation is fit for purpose? Do you carry out the required checks?
- How do you confirm with the Nominated Person that all earths have been applied in accordance with the STED form?
- How would you constructively challenge a colleague if the required checks and correct steps for applying portable earths were not being followed?

