

Application guide – Test before Touch on 25kV a.c OLE

Briefing



Never assume equipment is isolated
– always test before touch.

Background

The Life Saving Rule (LSR), test before touch, came into force in August 2012 when the original LSR's were published

Due to concerns in how the rule was being interpreted for Electrical Power assets an application guide was published in December 2015.

<https://safety.networkrail.co.uk/wp-content/uploads/2016/12/Application-of-the-Electrical-Lifesaving-Rules.pdf>

Feedback from front line staff and recommendations from recent audits have indicated that test before touch is not being consistently applied to the 25kV OLE. As a result a Safety Advise Note, NRA 18/12, was published in July 2018.

https://safety.networkrail.co.uk/safety-advice-nra-18_12-lifesaving-rules-test-before-touch-on-25kv-ole/

This briefing is for the updated application guide for test before touch on 25kV which has been designed to build on Safety Advise Note, NRA 18/12, and provide complete clarity on test before touch.



Never assume equipment is isolated – always test before touch.

What is being changed?

The change to the application guide for the Electrical Life Saving Rules is limited to the final step in the process of test before touch/approach.

The existing application guidance for the following steps remains unchanged:



Always be sure the required plans and permits are in place, before you start a job or go on or near the line.

<https://safety.networkrail.co.uk/wp-content/uploads/2016/12/25KV-Overhead-line-equipment.Always-be-sure.pdf>



Always test before applying earths or straps.

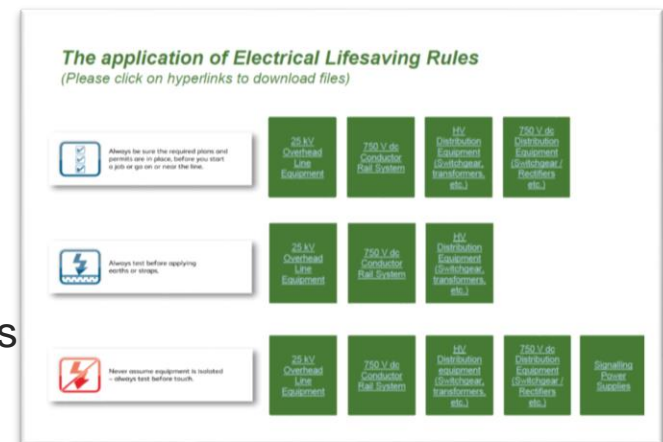
<https://safety.networkrail.co.uk/wp-content/uploads/2016/12/25kV-overhead-line-equipment.Always-test.pdf>

All steps in the process must be followed to demonstrated the OLE is safe to touch or approach

Scope of Test before touch or approach

The new application guide comes into force on 30th June 2019 and applies to all OLE components which may be energised at 25kV a.c. This includes:

- Catenary system including contact wire
- Bare feeders
- Autotransformer Feeder (ATF)
- Supplementary conductors
- Exposed cable terminations
- Booster Transformers and associated return conductors
- Harmonic Dampers
- H.V distribution cables



Note, a supporting HV distribution permit to work may be required in addition to a Form C for some of the above.

Note, it is advised that the guidance is applied in advance of the compliance date if there is any confusion with the current test before touch rule.

Before issuing or accepting a Form C

“When working on or near 25kV a.c overhead line equipment, the equipment shall be assumed live unless in receipt of a Form C. All Form C holders shall witness a test prior to accepting a Form C and commencing work. The test shall be carried out within the specified isolation limits.”

Key points of clarity:

- A test shall be witnessed by all Form C holders before accepting a Form C.
- The test shall be carried out within the specified isolation limits, i.e the Form C shall be issued on site within the isolation limits.
- Nominated Person issuing the Form C shall confirm that the Form C holder fully understands the safe work limits and details of any residual electrical hazards stated on the Form C.
- If the Form C holder is relieved, they shall inform their relief of conditions set out on the Form C. If there is any doubt, then the test should be performed again

What is “touch” in the context of test before touch on 25kV OLE?

“For the purposes of this document “touch” is defined as any circumstance which requires a person, or any tools (excluding approved insulated tools), coming within 600mm of 25kV a.c overhead line equipment.”

Key points of clarity:

- The definition of “Touch” has been aligned to “work less than 600mm from live equipment”, detailed in Network Rail standard NR/L3/ELP/29987 “Working On or About 25kV a.c Electrified Lines”.

When “touching” the OLE

“When touching the 25kV a.c overhead line equipment, once in receipt of a Form C a further test shall be carried out prior to work commencing for the first time at the site of work. The test shall be performed or witnessed by all members of the working group.

For competent overhead line equipment staff touching 25kV a.c. overhead line equipment, once in receipt of a Form C and having carried out an initial test before touch, you shall test the new location if you have moved beyond discrete features in the Overhead Line (such as Section Insulators, Neutral Sections, Insulated Overlaps), moved onto a different track; or moved on to different conductor.

If there is any doubt, then the test shall be performed again.”

Key points of clarity:

- When “touching” OLE a further test shall be performed at the worksite, this may be combined with the initial test for receipt of the Form C.
- A further test shall be performed when you move beyond an OLE discrete feature

Voltage testing devices and their use

“Only approved test devices shall be used to perform testing.

Testing of the overhead line equipment prior to issuing a Form C shall only be performed by a Nominated Person or an Authorised Person.”

Key points of clarity:

- Standard NR product accepted Voltage testing devices used for testing the OLE in accordance with Network Rail’s isolation process, NR/L3/ELP/29987, or any other NR product accepted test before touch specific testers, e.g PA05/06351, shall be used.

Questions / Feedback



Never assume equipment is isolated
– always test before touch.