

V2.0

NR/L3/ELP/27720:

Test Before Touch for Overhead Line Equipment

Frequently Asked Questions (FAQs) Version 2.0, 15/12/22

This document will evolve over time as more questions are submitted. To submit your question, please email: ESDSAISupport@networkrail.co.uk or scan the QR code:



Text with this side bar is updated or new text from the previous version of this document.

This document is broken down into distinct sections. Please click on the relevant category to navigate to the required section in this document:

[Briefing materials and compliance](#)

[Equipment Competent Person](#)

[The standard](#)

[Live Line Indicators](#)

[Initial Business as Usual Training](#)

Briefing Materials and Compliance

Q. Who is the briefing material aimed at?

Detailed Briefing

- Persons holding one or more of the following competencies: Nominated Person (NP), Authorised Person (AP), COSS (OLP).
- Persons who will undertake the duties of an 'Equipment Competent Person' (ECP) under method 1 as described in the standard.
 - For Network Rail colleagues an ECP is someone that holds OLE 2 and OLE 4 (attained via OLE maintenance 3), and NP or AP
 - For supply chain colleagues an ECP is someone that holds OLEC 3 elements 2,3 and 4, and NP or AP

V2.0

A variation pending standard change (TR82501) was published on 15/12/22 which provides a separate arrangement for ECP competence requirements for colleagues working as part of the Overhead Condition Renewals (OCR team) in Route Services.

- Persons involved in the day-to-day planning of isolations and associated OLPs. (This does not include Electrical Control Operators or route based Isolation Planners.)

A learning event, with a short code of TBTOLDB, must be recorded in Oracle (Network Rail) or Sentinel (supply chain) to record a colleague's attendance at / undertaking of a detailed briefing.

Overview Briefing

- Colleagues that might request an Overhead Line Permit (OLP) to enable their work to be carried out and anyone who would like to know more about the process and why it is important

Please do NOT record the attendance at an overview briefing in Oracle or Sentinel.

Q. Where can I access the briefing materials?

For Network Rail colleagues, they can be accessed via the standards and controls intranet.

[NR/L3/ELP/27720/BRIEFING/2 \[Issue: 1 \] Test Before Touch for Overhead Line Equipment - Detailed Briefing](#)

[NR/L3/ELP/27720/BRIEFING/1 \[Issue: 1 \] Test Before Touch for Overhead Line Equipment - Overview Briefing](#)

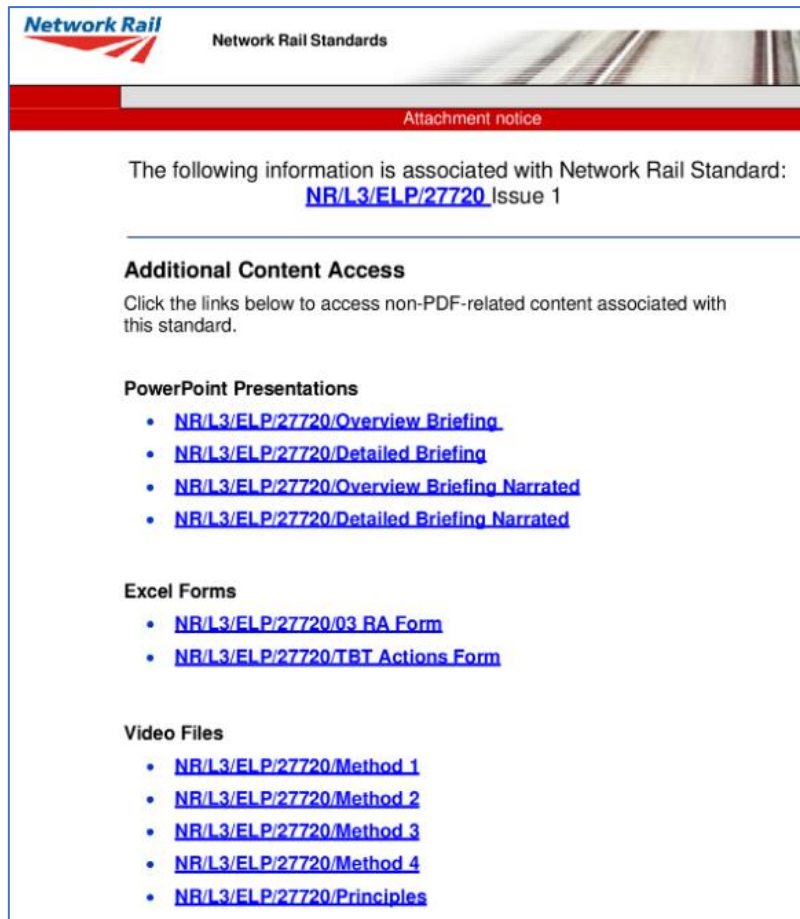
For supply chain colleagues, the materials are available via the Network Rail portal hosted by IHS. For more information on accessing Network Rail standards please see:

[Accessing-Network-Rail-Standards-V2.pdf \(newnetworkrail.wpenginepowered.com\)](#)

Please note there are two versions available for both the detailed and overview briefings, one narrated and one without narration. We would recommend making use of the narrated versions.

The short, animated films should be used to support the detailed briefing. They help to set the scene for the briefing's attendees and each film should be watched before the relevant section of the detailed briefing materials.

The materials available via the IHS Network Rail portal are as follows:



The screenshot shows a webpage header with the Network Rail logo and 'Network Rail Standards' text. Below the header is a red bar with the text 'Attachment notice'. The main content area contains the following text:

The following information is associated with Network Rail Standard: [NR/L3/ELP/27720](#) Issue 1

Additional Content Access

Click the links below to access non-PDF-related content associated with this standard.

PowerPoint Presentations

- [NR/L3/ELP/27720/Overview Briefing](#)
- [NR/L3/ELP/27720/Detailed Briefing](#)
- [NR/L3/ELP/27720/Overview Briefing Narrated](#)
- [NR/L3/ELP/27720/Detailed Briefing Narrated](#)

Excel Forms

- [NR/L3/ELP/27720/03 RA Form](#)
- [NR/L3/ELP/27720/TBT Actions Form](#)

Video Files

- [NR/L3/ELP/27720/Method 1](#)
- [NR/L3/ELP/27720/Method 2](#)
- [NR/L3/ELP/27720/Method 3](#)
- [NR/L3/ELP/27720/Method 4](#)
- [NR/L3/ELP/27720/Principles](#)

The five animated films that support the detailed briefing are now also available via Safety Central using these links:

[Lifesaving Rules | Safety Central \(networkrail.co.uk\)](#)

[Single Approach to Isolation \(OLE\) | Safety Central \(networkrail.co.uk\)](#)

V2.0

Q. What is the compliance date for the standard?

The standard was published on the 3rd September 2022. It has a revised compliance date of 4th January 2023.

- Compliance is required for any Overhead Line Permit (OLP), that falls under the scope of the standard, issued as part of an isolation that has a start time* after 20.00 hrs on 4th January '23.
- You are still encouraged to adopt the process before this date, where practicable.
- Please consider what you will be doing instead of the requirements of the standard to comply with the Lifesaving Rule – “Never assume equipment is isolated – always test before touch”.
- Derogation TR 82587, approved 16/11/22 enables the revised compliance date

* As published in the relevant Isolation Planning Form.

All relevant personnel requiring the detailed briefing need to be briefed so that they will be able to apply the requirements of the standard before the compliance date.

Q. What happens after the compliance date if a COSS (OLP), Nominated Person or Authorised Person, or persons acting as an ECP has not attended/undertaken a detailed briefing?

Collectively we must do better in relation to Test Before Touch for OLE, so we need to consistently apply the requirements of the new standard.

After 20:00 hrs on 4th Jan '23 if a person has not had the required detailed briefing they cannot undertake NP, AP or COSS (OLP) duties, or duties of an ECP, as required by the standard.

This is because they would not be able to implement the actions to be compliant to the standard.

Our present position is that we will not suspend competences affected by the detailed briefing. However, we expect all NP, AP, COSS (OLP) holders to complete the detailed briefing and we may choose to suspend relevant competences in the future.

It is important to note that the attendance at a detailed briefing is not an ‘authority to work’. There is no competence awarded.

Nominated Persons should check, prior to issuing an OLP where it is planned for conductors to be touched, that the COSS (OLP) who will receive the OLP has had the detailed briefing.

This can be achieved by the COSS (OLP), or other competence holder, logging into ‘My Sentinel’ – ‘Cardholders’ element of the Sentinel system at www.railsentinel.co.uk on a mobile device, or by showing a printed copy of their Sentinel profile including their picture and the Events section. See the next question and response (below).

We are liaising with the team responsible for the development of the Sentinel App to see if it can be configured to show Events as well as Competences when a card is scanned using the App. More details to follow asap.

In the meantime, please continue to logon via My Sentinel to view your profile or print your Sentinel profile as use the printout as evidence of attending/undertaking the detailed briefing.

Q. How do I confirm if someone has attended/undertaken the detailed briefing for Test Before Touch for OLE

At this stage the Sentinel app does not display Events when a person’s card is scanned via the app. We are working with the Sentinel team to look at updating the App to enable this.

In the meantime, where required, persons can demonstrate their attendance at, undertaking of, a detailed briefing via the Sentinel system using the ‘My Sentinel’ – ‘Cardholder’s’ login.

See <http://www.railsentinel.co.uk>

The image below shows how the learning event for the detailed briefing is shown on the Sentinel system.

The image shows a screenshot of the Sentinel app interface. On the left, there is a 'Competences' table with columns for Alias/Competence, Category, Valid, Valid Until Date, and Ex. Below this are sections for 'Takedowns', 'Competence Assessments', 'Events', 'Site Inductions', and 'Medicals'. The 'Events' section is circled in red, and a specific event, 'Test Before Touch for OLE Detailed Briefing' on 01/11/2022, is highlighted. A blue arrow points from this event to a larger, detailed view of the 'Events' list on the right. This detailed view shows a list of events with columns for 'Date Achieved' and 'Event Name'. The event 'Test Before Touch for OLE Detailed Briefing' is at the top of this list, with a date of 01/11/2022. Other events include 'Annual Capability Conversation' and 'Briefing: Live Dropper Inst and Removal Kit'.

A hard copy of the form with the person’s picture on is also an acceptable means of demonstrating that they have had the detailed briefing. This applies just for TBT for OLE detailed briefing event.

We recommend that you check with your relevant colleagues that they have the Sentinel App on their phones and that they have an active login to the ‘my Sentinel’ system. The file below shows how to create a log in account for the Sentinel system to display Events.

If there are concerns about application of this process or due to other factors such as working in areas where access to the Sentinel website might be an issue due to mobile coverage a hard copy of the person’s Sentinel profile should be made available.



Q. In the supply chain who can deliver the detailed and overview briefings and who do I address technical questions to?

Network Rail has not set any specific briefing requirements in relation to the briefing of this standard in the supply chain. However, we would encourage the following good practice.

- Detailed briefings should make use of the narrated version of the materials supported by the short, animated films;
- Detailed briefings should preferably be carried out face to face;
- Where face to face meetings are not practicable and systems such as MS Teams are used, then organisations should confirm attendance and might choose to check attendees understanding to validate the attendance for the duration of the briefing;
- Where detailed briefings are face to face or via MS Teams (or such like) it should be facilitated by someone with experience of overhead line equipment and/or safety briefings;
- Use of the supply chain organisations' own briefing system to enable colleagues to access and undertake the detailed briefing using the Network Rail published materials.

Technical queries should be addressed to Network Rail (after checking the published FAQs) via ESDSAISupport@networkrail.co.uk.

Equipment Competent Person (ECP)

Q. What is the purpose of an Equipment Competent Person?

The Equipment Competent Person has been identified, for use under Method 1, as a person with the knowledge and ability to identify dynamically where a Test Before Touch action will be required on the day/night of the work without prior planning of Test Before Touch actions taking place.

Q. Who can act as an Equipment Competent Person?

The competences required to undertake the duty of an ECP are:

- OLE 2 & OLE 4 (via OLE maintenance 3) and Authorised Person or Nominated Person;
or
- OLEC 3 with the minimum elements of 2, 3 & 4 and Authorised Person or Nominated Person

Where an individual does not meet the above, please refer to module 1 of the standard for further guidance and requirements on the duties of an ECP.

A Variation Pending standard change (TR82501) was published on 15/12/22 which provides a separate arrangement for ECP competence requirements for colleagues working as part of the Overhead Condition Renewals (OCR team) in Route Services.

V2.0

Q. What happens if the work is planned with an Equipment Competent Person, but they aren't available on the night?

If you planned to use Method 1 and the ECP becomes unavailable (and cannot be replaced) then Method 4 must be utilised to enable the work to continue.

Q. Can the COSS (OLP) who is holding the OLP also act as the Equipment Competent Person (ECP)?

Yes. However, if the ECP is also the person undertaking the Test Before Touch actions then another member of the working must also witness and record each Test Before Touch action.

Where practicable, this should be the person supervising the physical task delivery (the person in charge).

The standard

Q. When does Test Before Touch for Overhead Line Equipment apply?

A Test Before Touch action, or set of actions, must be implemented where an OLP is issued and it is planned for a person, tool or an item of equipment/plant to come within 600mm of an exposed conductor described by the OLP.

There might be other occasions where a Test Before Touch action is appropriate and 'good practice'. The standard and the supporting detailed briefing material sets out guidance on this.

Q. Why are there four different methods to implement Test Before Touch?

We want Test Before Touch for OLE to be applied consistently. When developing the standard, we were challenged by stakeholders not to be too prescriptive and so we have developed four different methods to suit all task delivery methods and OLE configurations.

Q. Is there a preferred hierarchy of the different Test Before Touch methods?

There is no preferred hierarchy with regards to which method is selected in terms of electrical safety. The response to the previous question sets out why there are different methods.

Method 4 was included to enable Test Before Touch actions to be consistently implemented in urgent situations or where methods 1 – 3 cannot be sustained. It was not intended to be used for 'planned' work as a means to avoid robust forward planning and proper assessment of electrical risks.

We will monitor the use of each of the different methods.

Q. Who selects the Test Before Touch method and how is this communicated to the working party?

Planned work

Whenever an Overhead Line Permit (OLP) is issued and the standard applies then the Test Before Touch method to be used should be selected by those person(s) responsible for planning the implementation of isolation(s) and associated OLP(s), and the resources that are required.

The person selecting the Test Before Touch method should liaise with the representative of the organisation that requires the OLP to be issued, as necessary, to aid the selection of the most appropriate Test Before Touch method.

This approach applies even where Method 1 or Method 4 is selected. The Nominated Person responsible for the isolation and issuing OLP(s) needs to be informed of the identified method and blank Test Before Touch action form(s) made available to them for issuing to the COSS (OLP).

Unplanned urgent work where the timescales do not allow for methods 2 or 3 to be employed

Where the working party responding to the urgent work contains an ECP then Method 1 might be employed. In this situation, once the approach has been agreed between the Nominated Person and the ECP, then the ECP should record that decision by ticking the Method 1 box at the top of page 1 of a blank Test Before Touch actions form. They should sign the ECP declaration (also on page 1) following the Nominated Person briefing and before proceeding with the Test Before Touch actions.

Where Method 4 is employed in this situation then the Nominated Person must agree the approach with the COSS (OLP). This should be completed as part of the Nominated Person to COSS (OLP) briefing prior to the OLP being issued.

The COSS (OLP) must sign the Test Before Touch actions form to accept responsibility for requesting a Test Before Touch action in accordance with the briefing from the Nominated Person. This is on page 1 of the Test Before Touch actions form and is in addition to the COSS (OLP) recording their details at the top right of page 2 of the form.

Q. As an industry we have a record of certain OTP inadvertently coming into contact with conductors that are covered by an OLP. Should we undertake Test Before Touch actions due to this, even though we are not planning to touch?

The Test Before Touch for OLE standard is not in place to control this type of risk.

Other controls should be in place to prevent OTP e.g. 360 excavator jibs, crane arms, etc. from coming within 600mm of or into contact with the earthed conductors, to mitigate the risk of damaging the infrastructure.

We do not want this standard to cause un-necessary Test Before Touch actions.

However, if it is possible, subject to the other controls in place, for the OTP to come within 600mm of a conductor defined on the OLP then, as noted above, it is good practice to demonstrate to the recipient of the OLP that the OLE is de-energised. As a minimum this should be at the on-tracking location.

Where it is **planned** for the OTP, or persons within the OTP (e.g. within a basket), to come within 600mm of a conductor defined on the OLP then one or more Test Before Touch actions must be implemented.

We will monitor this specific matter during the first few week's following the standard's compliance date.

Q. Are Test Before Touch actions required to allow a MEWP to travel under OLE, that is defined by an OLP, to a location of work which requires it to pass under several discrete in line OLE features?

On the basis that all parts of the MEWP will remain greater than 600mm from the conductors defined on the OLP there is no requirement to undertake Test Before Touch actions.

Q. Who can undertake a Test Before Touch action?

Individuals holding Authorised Person or Nominated Person competence are the only people permitted to use Live Line Indicators for OLE.

Q. Why is it that only a Nominated Person or an Authorised Person can undertake the Test Before Touch action?

Today, our competence framework only allows a Nominated Person or an Authorised Person to use Live Line Indicators to undertake a Test Before Touch action.

Q. Can the action of testing before earthing apply as the Test Before Touch action if witnessed by the COSS(OLP)?

No, there is potential for this to cause confusion as the OLP has not been issued at this stage.

Q. Why has the Test Before Touch action form been introduced?

We acknowledge that the introduction of another form is not ideal, but when we looked at whether we could make use of existing forms (Form B, OLP – Form C) we found that they could not be changed to accommodate the requirements of the standard.

We will look at this again as part of the ongoing work to update NR/L3/ELP/29987 as we introduce the phased implementation of Single Approach to Isolations, taking into account feedback provided as this standard is implemented.

Q. What version of the Overhead Line Permit do I use?

Issue 7 of the Overhead Line Permit (Form C), as published on 3rd September 2022, must be used when applying the requirements of the Test Before Touch for OLE standard, and in all cases where an OLP is issued from 20:00 hours on 4th January '23.

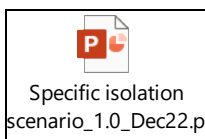
Q. Who is responsible for completing and returning the Test Before Touch actions form.

The standard requires the COSS (OLP) to witness and record Test Before Touch actions. The COSS (OLP) must retain their completed version of the Test Before Touch actions form and return it as part of their completed Safe Work Pack.

The Nominated Person might choose to take/request a photocopy / photo of the completed form for their own records, but this is not a requirement of the standard.

Q. What is the process where there is an isolation where a Nominated Person issues multiple OLPs to different parties that require an OLP?

The attached PowerPoint slides works through a specific scenario. We will review the content within this document as operational experience is fed back following the standard's compliance date.



Live Line Indicators

Q. Can I use any approved OLE Live Line Indicator (LLI) for Test Before Touch?

When used in accordance with the specific work instructions, the devices will always indicate that a conductor is live when it is energised at the system voltage e.g. 25,000V AC or 1500V DC.

A Test Before Touch action is the final step in our isolation process and is there to confirm that the working party are in the right place in accordance with the OLP's defined conductors and safe working limits.

Undertaking Test Before Touch actions consistently using any of our approved LLIs would have prevented colleagues from being seriously injured when they inadvertently come into contact with conductors live at system voltage.

There is further information on the use and application of Live Line Indicators in the detailed briefing materials.

V2.0

Q. What Live Line Indicators should I be using for Test Before Touch?

Any product approved Live Line Indicator (LLI) can be used in accordance with the relevant work instructions.

Please remember that where a capacitive LLI is used on 25kV OLE then a Test Before Touch action must take place at a minimum of 3 metres along the conductor away from an OLE structure or item of in-line insulation (if there is sufficient conductor length). Where this is not possible, a resistive Live Line Indicator must be used.

Only resistive Live Line Indicators can be used on DC OLE.

Initial Business as Usual Training

Q. When will the initial training materials for competences affected by this standard be updated?

Work has started and the initial, business as usual, training material will be updated in early 2023.

Until this point any new entrants to COSS (OLP) or AP or NP or OLE 3 (OLE 2 and OLE 4) or OLEC 3 (elements 2,3 & 4) will need to have the detailed briefing

Persons progressing through the competence framework, for example, AP to NP should re-take the detailed briefing to review the content specific to a NP.

All training materials will be updated to include all necessary requirements of the standard within the initial and recertification materials; therefore no detailed briefing will be required. We will communicate this out.
