Network Rail

KEYPOINTS

WORKING NEAR OR ADJACENT TO A DC CONDUCTOR RAIL (DCCR)

Issue two valid from July 2017

CERTIFICATION REQUIRED: CURRENT SENTINEL CARD ENDORSED WITH PTS COMPETENCY

Sentinel Cards and Track Visitor Permits (TVP)
can be checked for validity on 0870-162-7979

Keypoint Cards have been produced for many of the track safety competencies, as a reminder of the main duties, rules and requirements.

Further copies are available from Willsons Group Services.

To obtain an order form, email:

denise@willsons.com

(phone **01636 702334** or fax **01636 701396**)

CONDUCTOR RAIL EQUIPMENT

The conductor rail and any of its connections must be treated as live and dangerous at all times.

Conductor rails (third rails) provide trains with up to 750 Volts DC. The live rail is raised and mounted on insulators at the sleeper ends

Make sure you:

- Do not allow yourself or anything you are holding or carrying to make contact with the conductor rail
- Stay at least 300mm (1 foot) away from live equipment
- Use approved insulated tools or that have approved insulation, conductor rail shields and appropriate PPE as required
- Take extra care when working with liquids
- Avoid standing water that may be in contact with the conductor rail

In the London area, lines used by Underground trains are also fitted with a fourth rail located in the four foot. This is also a conductor rail and must be treated as live and dangerous at all times.

CROSSING DC ELECTRIFIED LINES

Use an authorised walking route where one is provided

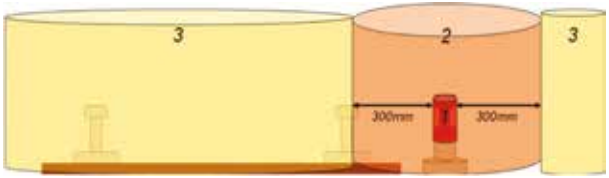
Cross at a conductor rail gap wherever possible

STEPPING OVER CONDUCTOR RAILS

If you need to step over the conductor rail and adjacent running rail you must do so in one step, preferably where the ballast is level and where there is either timber or plastic guard boarding present. Never step between the conductor rail and adjacent running rail.

RISKS LEVELS AND RISK CONTROLS

Risk Levels	Description	Risk Controls
Risk Level 1	The risk of a person, any tool, plant or equipment making contact with the conductor rail(s) cannot be reduced to a tolerable level	Isolation and the issue of a conductor rail permit is mandatory
Risk Level 2	Work that could encroach within 300mm either side of the conductor rail(s) or any space above or below the conductor rail shall be considered as working live	Fit conductor rail shields to prevent accidental contact with the live conductor rail
Risk Level 3	Work not as close as 300mm of the conductor rail(s)	Conductor rail shields are not required. However, if a risk remains that a person, any tool, plant or equipment could encroach within 300mm either side of the conductor rail, then the risk control for Level 2 shall be applied



Ref: NR/L3/MTC/EP0152 – Working on or Adjacent to a DC Conductor Rail (Issue 5)

CONDUCTOR RAIL SHIELDS

NOTE: the number of conductor rail shields used would normally be limited to the number which may safely be removed before the passage of a train; normally this number would not exceed more than one shield for each member of staff on site, excluding lookouts and site wardens.

TOOLS & EQUIPMENT

Insulating hand tools are made totally or predominantly from insulating material. The insulating part of these tools is usually coloured orange and will state the BS standard BS8020.

Insulated hand tools are made of conductive material, fully or partially covered by insulating material

Note: All insulated / insulating tools must be in a fit condition and approved for use. Insulated tools that have an exposed metal section long enough to bridge the conductor rail and a running rail must always be used with an insulated shield.

COSS SAFETY BRIEFING

When the conductor rail has been isolated and a conductor rail permit (CRP) issued, the safe system of work briefing you will receive from the COSS will include:

- The electrical safe working limits stated on the CRP
- The position of live conductor rails and equipment adjacent to or within the site of work

TEST BEFORE TOUCH

After your COSS has been issued with a conductor rail permit the conductor rail(s) must be tested at the site of work immediately prior to the commencement of work.

EMERGENCY SWITCH OFF PROCEDURE

When you contact the Electrical Control Operator (ECO), you must first state:

“This is an emergency call”

Check you are speaking to the ECO and tell them:

- the reason why you want the electricity to be switched off
- whether any person is in danger from live conductor rail
- whether short circuiting bars have been applied
- whether the emergency services are waiting to give assistance

You must stay in contact with the ECO until you have been assured that one of the following applies:

- The electricity has been switched off, or
- Other arrangements have been made

Depending on the circumstances and emergency action required, the ECO may appoint a person to take charge of the electrical emergency (PICEE).

An emergency switch-off of the DC Conductor rail does not mean that train running has been stopped

APPLYING A TRACK CIRCUIT OPERATING CLIP

When applying a track circuit operating clip it must be attached to the running rail furthest from the conductor rail first, and then to the adjacent running rail.

When setting out detonator protection the detonators must be attached to the running rail furthest from the conductor rail

LIFE SAVING RULES WORKING WITH ELECTRICITY

Always have a valid permit to work where required

Always test before

applying earths

Note: For DC Conductor Rails this refers to short circuiting equipment (non emergency)

Never assume equipment is isolated – always test before touch

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Rail Sentinel

Rail Sentinel website offers the latest developments on the new Sentinel Service.

http://www.railsentinel.co.uk

RGS online

RGS online is the website providing free access to all current (many withdrawn) Railway Group Standards, Rail Industry Approved Codes of Practice (RACOPS), Guidance Notes (GNs) and Rail Industry Standards (RISs).

http://www.rgsonline.co.uk

RSSB Rail Safety and Standards Board

RSSB provides support and facilitation for a wide range of cross-industry activities.

http://www.rssb.co.uk

Safety Central - The site is your one-stop shop of safety information, advice, resources and useful contacts, designed to promote consistency and best practice across the whole rail industry.

http://safety.networkrail.co.uk/

There are two ways to report safety concerns. Your first step should be to tell your supervisor or sponsor. If this isn't possible, you can contact CIRAS - the railway's confidential reporting service – **www.ciras.org.uk**

The purpose of this Keypoint Card is to act as a reminder only. If you are unsure about any issue relating to the information given here, you must refer to the appropriate module of the Rule Book GE/RT 8000 Series or Handbook.

In supplying this document, Network Rail makes no warranties, expressed or implied, that compliance with all or any documents it issues is sufficient on its own to check safe systems of work or operation.

Users are reminded of their own duties under health and safety legislation.

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