

Application of the Electrical Lifesaving Rules

Purpose

The electrical lifesaving rules are;



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



Always test before applying earths or straps.



Never assume equipment is isolated – always test before touch.

The Lifesaving Rules were introduced to support the Network Rail safety vision of Everyone Home Safe Every Day.

The purpose of this document is to describe how these rules are applied to electrical power systems. This guidance is based upon requirements stated in the following company standards:

NR/SP/ELP/29987	ac electrified lines work instruction
NR/WI/ELP/3091	dc electrified lines work instruction
NR/L3/MTC/EP0152	Working on, or adjacent to, conductor rail
NR/WI/ELP/27051	Work instructions for dc electrified lines in the Liverpool area
NR/WI/ELP/27052	Work Instructions for dc Electrified Lines on the Nothern City
NR/SP/ELP/21060	Issue of safety documentation for work on 650/750V dc apparatus
NR/L3/ELP/21067	Instructions for making out issuing and cancelling high voltage permits to work, sanctions for test and state certificates
NR/L3/SIGELP/50001	Working on or near 650V signalling power supplies

The Electrical Safety Delivery (ESD) and Business Critical Rules (BCR) programmes are committed to improving these standards. This means the Lifesaving Rules requirements will evolve as new controls are implemented.

Scope

There are 10 Network Rail Lifesaving Rules. This document focuses on three rules which are specifically relevant to electrical safety and how these apply to the following electrical systems:

- 25 kV ac overhead line equipment
- 750 V dc conductor rail system
- HV distribution systems (switchgear, transformers, etc.)
- 750 V dc distribution equipment (switchgear, rectifiers, etc.)
- Signalling power supplies

Other Rules that are relevant, but which are not detailed in this document include:

- Always use equipment that is fit for its intended purpose
- Never undertake any job unless you have been trained and assessed as competent

Application

These rules must be adhered to by all Network Rail employees or contractors working on Network Rail infrastructure.

Definitions

ac	alternating current
ATF	auto transformer feeder
COSS	controller of site safety
dc	direct current
DCCR	direct current conductor rail
DEP	designated earthing point
DPE	designated project engineer
ECO	electrical control operator
EPME	electrification and plant maintenance engineer
FSP	functional supply point
HV	high voltage (above 1000 volts)
kV	kilo volts
LV	low voltage
OLE	overhead line equipment
PTS	personal track safety
RAM	route asset manager
RC	return conductor
SMOS	structure mounted outdoor switchgear
TP	track paralleling

The application of Electrical Lifesaving Rules

(Please click on hyperlinks to download files)



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Overhead
Line
Equipment

750 V dc
Conductor
Rail System

HV
Distribution
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(Switchgear,
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, etc.)

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