

No: IGS 243

Infrastructure Group Safety Bulletin

Inspection of OLE Catenary following insulator flashover

This bulletin is for the attention of:

IMDMs, IMEs, E&PME Maintenance Engineers, OLE Section Managers, OLE Shift Supervisors and Staff, OLE Planners and Maintenance Support Engineers (Contact Systems).

Background

A recent incident occurred at Elstree Tunnel when staff who, after replacing a 'flashed over' insulator went to check the OLE Catenary; upon their approach the OLE Catenary parted in front of them causing a dewirement of the OLE. It appears that the OLE conductor had only one or two strands holding it, and the movement of the cantilever whilst the insulator was being changed added to the stress on the stranded wires resulting in the wire parting.



Figure 1: Stranded conductor



Figure 2: Flashover damage to top tube insulator

Actions:

All OLE staff are to be re-briefed and reminded, specifically;

- That **prior** to checking and changing any OLE insulator that is part of the registration arrangement supporting a conductor, staff must follow the instructions contained in OLE Work Instruction NR/OLE B12 High level Catenary Intrusive Inspection.
 - This work instruction covers the activities for high level intrusive inspection of catenary at suspension points where there is an increased risk of premature conductor failure.
 - Please note an increased risk of catenary failure due to arc damage and work hardening of the individual strands is evident in both Mk1 and UK1 modified Mk1 types of OLE.
- To inspect the catenary for parted or flattened strands, abnormal wear and corrosion arc erosion or burning at the following locations
 - At suspension clamps and within 1m of a suspension clamp paying particular attention to the hidden area of the conductor within the clamp itself;
 - At pulley wheel suspension points and within 1m of the pulley wheel paying particular attention to the area of the conductor in contact with the pulley wheel.

Please refer to Task Risk Control Sheets NR/L3/MTC/RCS0216/OLE 07 'Dismantling of OLE and work under tension' and NR/L3/MTC/RCS0216/OLE 012 OLE 'Insulator Replacement' for further information.

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