

Category 2 Standard

S2538
(Formerly E7154)

Maintenance of Rail Circuits

Issue No.: A6

Issue date: June 2015
Review date: June 2020

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1 Purpose

- 1.1 This standard defines the minimum maintenance requirements for rail circuits and associated equipment used on London Underground.
- 1.2 Rail circuits are safety critical assets, typically used to enable the safe clearing of signals or the safe releasing of routes.

2 Scope

- 2.1 This standard applies to London Underground maintained equipment only.
- 2.2 This standard applies to 10kHz overlay rail circuits, and to de-energised rail circuits using blockjoints. It does not apply to mechanical treadles or to electromagnetic position detectors.
- 2.3 This standard is primarily intended for use by the Asset Steward.
- 2.4 This updated standard replaces E7154 A2 and TLL-ENG-S7253-A1, which are withdrawn.

Note: The functions and performance criteria for track circuit based train detection systems are detailed in S2505 (Train detection systems), and their maintenance requirements are specified in S2541 (Maintenance of track circuits).

3 Requirements

3.1 Planning requirements

- 3.1.1 Asset stewards shall devise a maintenance regime by which rail circuits are maintained in a safe and effective operating state. The regime shall define the frequency or other criteria for maintenance and the tasks to be carried out. Maintenance activities, including the derivation and upkeep of the documented regime and its implementation, shall be controlled by a management system which shall be subject to programmed review and audit.
- 3.1.2 The Asset Steward shall develop a method of verification to monitor the effectiveness of the maintenance regime.
- 3.1.3 The effectiveness of the maintenance regime shall be verified by the Asset Steward:
 - a) at regular intervals;
 - b) following significant incidents;
 - c) in advance of planned changes. Changes to the maintenance regime shall be managed in accordance with the requirements of 1-538 Assurance.
- 3.1.4 Execution of duties shall be verified by programmed audit.
- 3.1.5 Processes shall be established to enable maintainers to report potential deficiencies in the regime and for these to be considered.