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1 Purpose

- 1.1 This standard defines the minimum maintenance requirements for trainstops and their associated track crossing cables and termination boxes which connect the trainstop to the fixed cable network.

2 Scope

- 2.1 The primary user of this standard shall be the Asset Steward.
- 2.2 This engineering standard replaces E7151-A5 and TLL-ENG-S7250-A1, which are withdrawn.

Note 1: Workshop overhaul of Trainstops is not covered by this standard.

Note 2: Maintenance of trackside kiosks and boxes are covered by S2545.

3 Requirements

3.1 Planning requirements

- 3.1.1 Asset stewards shall devise a maintenance regime by which trainstops are maintained in a safe and effective 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.

Note: Historically the maintain regime has been time based with a frequency of 12 weeks, but the maintenance interval may be extended providing the change has a safety justification that has been accepted by the Head of Signalling Engineering.

- 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 Standard S1538, 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.

3.2 Pressure Systems Safety Regulations

- 3.2.1 The Asset Steward shall ensure that a written scheme of examination is produced by a competent person as required by the Regulations, and that the scheme is periodically reviewed and kept up to date. Guidance on the Pressure Systems Safety Regulations may be found within the Safety of Pressure Systems approved Code of Practice.
- 3.2.2 The Asset Steward shall arrange for 10% of trainstop flexible hoses, under their stewardship, to be examined by independent persons, with specialist competence on an annual rolling programme. The percentage of flexible hose inspections may fluctuate dependent on the competent persons' previous inspection findings.
- 3.2.3 Reports of inspections undertaken shall be retained so as to formally record findings and observations made during these inspections.

3.3 Functional requirements

3.3.1 Periodic requirements

- 3.3.1.1 Where the following are features of the equipment, the Asset Steward shall ensure throughout the year that the following requirements are met:
- a) check that the air hose and air motor are free from water and other detritus;
 - b) check that the air connections including the 'Jubilee' clips are tight and no air leaks are present;
 - c) check that the air hose is in serviceable condition;
 - d) check that the trainstop casing exhibits no evidence of cracks, in particular around the head bearing;
 - e) check that the trainstop casing is free from oil leaks;
 - f) check that electrical connections linking the trainstop to the fixed cable network (which shall include all 10 core cables and trackside connection boxes) are secure and free from detritus and verdigris;
 - g) check that the interior of the trainstop is free from accumulated water;
 - h) check that the oil filter is clean and the oil level is correct (Shell "Tonna" T220 oil shall be used - London Underground Stores List No.17616/879);
 - i) check that the ramps are secure and intact;
 - j) check that the trainstop arm moves freely and smoothly over its full limit of travel;
 - k) on bull head rail, check that wooden keys, are used, and are secured in position by nails in the area adjacent to the trainstop;
 - l) the trainstop head shall be gauged in the ON position, using a calibrated gauge to ensure the following :