

Ref: **NR/L2/ELP/27238/APP-B**
Issue: 07
Date: 4 July 2014
Compliance date: 1 November 2014

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Electric points heating installations

Appendix B

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B.1 Purpose

This document states the maintenance periodic requirements for electric points heating installations.

B.2 Scope

This document applies to all electric points heating equipment on controlled infrastructure where the point heating is supplied from a points heating control cubicle.

B.3 Definitions

B.3.1 heating season

The period of time during which the points heating is required to be activated and fully operational applicable to each installation.

B.3.2 installation

All electrical and mechanical equipment associated with the operation of a points heating equipment site.

B.4 Maintenance Requirements

B.4.1 General

The content of the maintenance tasks stated in this standard prevent danger and sustain operational availability of the system throughout the heating season. The frequency of the maintenance tasks shall depend upon the particular track circuit type at the installation.

Where available RCMS can be used.

The heating season is defined within the route specific winter preparedness plan.

The summer/winter switch, where fitted shall be used to prevent inadvertent operation of the heating outside the points heating season unless otherwise agreed with the RAM (E&P) for remote monitoring purposes.

Where remote monitoring is required outside of the heating season for rail temperatures, additional measures such as the isolation of the transformer feeds shall be considered as a mitigating action. Otherwise any alarm indicating heating when not required shall be treated as a defect requiring attention.

After the end of the heating season, the system shall be switched to summer mode within one month. The system shall be switched to winter mode no more than six weeks before the start of the heating season.

Either an annual or a seasonal inspection shall be performed six weeks before the start of the heating season.

The system shall be fully functional before the start of the heating season.

B.4.2 Records

The following specific information shall be maintained for each installation :-

- Track circuit compatibility
- Heating system condition (rating)
- Type of heating
- Type of controller
- Controller settings
- Insulation resistance
- Transformer type (single or dual wound)

B.4.3 Annual (F inspection)

This task shall be carried out once per annum to each installation. This is to be completed outside of the heating season.

To establish the integrity and correct operational status of the installation the following shall be inspected, tested and overhauled:

- a) Control cubicle/satellite cupboard;
- b) Condition monitoring equipment;
- c) Sensors;
- d) Functional test;
- e) Transformers;
- f) Cables, blocks, harnesses and connection boxes;
- g) Heaters.

B.4.4 Seasonal (C inspection)

In addition to the annual inspection each points heating installation shall be inspected during the heating season to a level appropriate to the route and the equipment. Changes of the C maintenance frequencies to be requested by the Maintenance Organisation. These changes are to be agreed with the Route Asset Manager (E&P) before implementation, subject to the Maintenance Organisation assessing and recording the following:

- Route criticalities
- Track condition
- Points heating equipment condition.

Three types of C inspection can be performed:

- C1: On-site inspection and test;
- C2: remote status check using intelligent infrastructure;
- C3: on site status check.

The equipment shall receive a C inspection every month during the heating season unless agreed otherwise.