Ref:	NR/L2/ELP/24011
Issue:	3
Date:	01 June 2008
Compliance date:	26 August 2008

Level 2

Booster transformer outages

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Issue record

Issue	Date	Comments
1	February 2002	Initial issue
2	June 2005	Re-issued as a SAF 3 Business Process Document (formerly RT/E/P/24011
3	June 2008	Re-issued as a Phase 2A Business Process Document

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 26 August 2008.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 4 to continue to comply with the Issue of any relevant Network Rail Standards current when GRIP Stage 4 was reached and not to comply with requirements contained herein, unless the designated Standard Owner has stipulated otherwise in the accompanying Briefing Note.

Reference documentation

See Clause 6

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1 Purpose

This specification defines the process for managing the outages of booster transformers on Network Rail's 25 kV a.c., 50 Hz electrified lines. It details the actions required to be taken. Further and more detailed information on booster transformer outages can be found in the Network Rail guidance notes NR/GN/ELP/24015

2 Scope

This specification applies to those parts of Network Rail's 25 kV a.c., 50 Hz electrified railway infrastructure, which includes the use of traction return conductors and booster transformers. It mandates the requirements for the operation of Network Rail's 25 kV a.c., 50 Hz electrified railway, where there is an occurrence of booster transformer outage(s).

This document does not include instructions for specification, approval, installation, commissioning, maintenance or day-to-day use of booster transformers.

3 Compliance with standards

The operation of the 25 kV a.c. 50 Hz electrified railway shall confirm that accessible and touch potentials, inclusive of metallic equipment connected to remote earth, do not rise to a potential that will cause hazards to persons operating or maintaining the system. For accessible voltages the total r.m.s. level of a.c. voltage is required to comply with the limits stated in the documents identified in the section entitled "Reference documentation".

4 Action to be taken in the event of booster transformer outages.

4.1 Immediate reporting procedure

In the event of a failed booster transformer, the relevant Electrical Control Room (ECR) shall be informed of the incident **immediately**; the ECR will then inform the relevant parties **immediately**.

Sufficient clearly visible warning shall be displayed for all relevant parties in order to assist the safety of all personnel.

Further action is then required in accordance with the following sections. Throughout the incident, the situation shall be monitored in accordance with Section 5 of this procedure.

4.2 Procedures to be followed

The following subsections define the procedures required for the various scenarios of booster transformer outages. Details of how to undertake the isolation and timescales for replacing the booster transformers can be found in Sections 4.3 and 4.4, respectively.

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