Ref:	NR/L3/SIG/10661
Issue:	14
Date:	5 March 2016
Compliance date:	4 June 2016

Level 3

Work Instruction

Signalling Maintenance Task Intervals

Endorsement and Authorisation

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User information

This Network Rail standard contains colour-coding according to the following Red–Amber–Green classification.

Red requirements – *no variations permitted*

- Red requirements are to be complied with and achieved at all times.
- Red requirements are presented in a red box.
- Red requirements are monitored for compliance.
- Non-compliances will be investigated and corrective actions enforced.

Amber requirements – *variations permitted subject to approved risk analysis and mitigation*

- Amber requirements are to be complied with unless an approved variation is in place.
- Amber requirements are presented with an amber sidebar.
- Amber requirements are monitored for compliance.
- Variations can only be approved through the national non-compliance process.
- Non-approved variations will be investigated and corrective actions enforced.

Green guidance – *to be used unless alternative solutions are followed*

- Guidance should be followed unless an alternative solution produces a better result.
- Guidance is presented with a dotted green sidebar.
- Guidance is not monitored for compliance.
- Alternative solutions should be documented to demonstrate effective control.

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Issue record

Issue	Date	Comments
14	March 2016	Updated for March 2016 SMS updates and removal of RBM Standards

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 4 June 2016.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (Option Selection) to continue to comply with the issue of any relevant Network Rail standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

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1 Purpose

The purpose of this document is to set the safety and performance intervals applicable for carrying out signalling maintenance tasks and tests.

The intervals shown are intended to maintain the designed safety and reliability by detecting and correcting deficiencies to signalling infrastructure before there is deterioration or failure.

2 Scope

This document applies to all staff that carry out preventative or corrective maintenance to signalling assets on NRMI.

The intervals relate to the maintenance tasks defined in the Signal Maintenance Specifications.

3 Definitions

Interval	The time between applications of a maintenance task.
Maintenance Task	The individual task which is carried out in order to achieve the required level of safety and reliability whilst optimising the useful working life of an item of infrastructure.
Maximum Interval between services	The maximum interval between services that Network Rail can currently justify.
Minimum Interval between services	The minimum interval between services that meets most requirements for Signalling Infrastructure maintenance.
Normal Interval between services	The standard interval between services that meets most requirements.

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4 Signal Maintenance Specification Application

4.1 General Requirements

The intervals currently being applied shall continue until an application to change is made and approved. The change process shall be applied to justify and approve any interval proposed which extends the task interval.

If due to local variation or historical reasons, an existing maintenance task interval is being applied which exceeds the maximum interval documented below, the interval shall be reduced to the maximum interval.

Any existing maintenance task interval which is currently applied at less than the normal task interval shall be advised to the Professional Head (Signalling).

Normal interval frequency may be increased for performance and reliability.

The S&TME shall arrange that Ellipse is adequately controlled to manage the required maintenance at the agreed intervals.

No scheduled maintenance interval should exceed the stated maximum interval unless a risk assessment indicates that it is safe to do so.

4.2 Early Maintenance

Maintenance may be undertaken ‘early’, provided this is within one week of the scheduled maintenance for ‘weekly’, ‘monthly’, ‘6 weekly’ and ‘3 monthly’ services. Longer interval services may be undertaken ‘early’ within one month of scheduled service.

Interval	Daily	Weekly	Monthly	6 Weekly	3 Monthly	6 Monthly	Annual & Above
Early	N/A	Up to - 1 week	Up to - 1 week	Up to - 1 week	Up to - 1 week	Up to - 1 month	Up to - 1 month

Table 1 – Early Maintenance

4.3 Late Maintenance

Scheduled maintenance services that are not completed fully or are only partly completed by the scheduled day, shall be to be classed as ‘late maintenance’.

‘Late maintenance’ shall be reprogrammed as follows:

- within 100% of the scheduled maintenance interval for ‘daily’ or ‘weekly’ tasks
- within 50% of the scheduled maintenance interval for ‘monthly’ or ‘6 weekly’ tasks
- within 25% of the scheduled maintenance interval for all other maintenance intervals.

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Interval	Daily	Weekly	Monthly	6 Weekly	3 Monthly	6 Monthly	Annual & Above
Late	< +100% Interval - - - - - - - < = + 1 day	< +100% Interval - - - - - - - < = +1 week	< +50% Interval - - - - - - - < = + 2 weeks	< +50% Interval - - - - - - - < = + 3 weeks	< +25% Interval - - - - - - - < =+ 3 weeks	< +25% Interval - - - - - - - < = + 6 weeks	< +25% Interval - - - - - - - < = + 3 months

Table2 – Late Maintenance

4.4 Missed Maintenance

Any maintenance only partly completed shall be classed as 'missed maintenance' and shall be reported to the S&TME.

Missed maintenance' shall be reprogrammed as follows:

- 100% of the scheduled maintenance interval for 'daily' or 'weekly' tasks, or
- 50% of the scheduled maintenance interval for 'monthly' and '6 weekly' tasks, or
- 25% of the scheduled maintenance interval for all other maintenance intervals

Interval	Daily	Weekly	Monthly	6 Weekly	3 Monthly	6 Monthly	Annual & Above
Missed	> +100% Interval - - - - - - - > + 1 day	> +100% Interval - - - - - - - > + 1 week	> +50% Interval - - - - - - - > + 2 weeks	> +50% Interval - - - - - - - > + 3 weeks	> +25% Interval - - - - - - - > + 3 weeks	> +25% Interval - - - - - - - > + 6 weeks	> +25% Interval - - - - - - - > + 3 months

Table3 – Missed Maintenance

Missed maintenance shall be caught up. Should such catching up prove difficult, the S&TME shall assess the risk of the 'missed maintenance'. The risk assessment shall consider the maintenance history of that item, its failure rate, and any safety hazards that might be introduced by deferring the service.

4.5 Missed Maintenance After Risk Assessment

Services scheduled between one and 6 weekly, where the risk assessment indicates it is safe to do so, may exceptionally be cancelled completely (i.e. service deferred until the next scheduled service) provided no more than 4 'weekly' services or 2 longer services are missed in any 52 week period.

In no case shall 2 consecutive 'weekly' or longer interval services be 'missed'.

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