

Information for users

To access individual modules referenced within this standard, blue active links are provided from the relevant index pages where these are listed. Clicking on a specific reference will lead to the corresponding document. Please ensure to open **bookmarks** for easier navigation within the document and to access **index of modules**.

Alternatively, you may use the search facility to search for a specific document by using the complete document reference number – such as NR/L3/SIG/30082/002 – in the search field.

Proceed to document ►

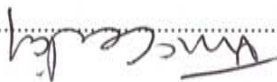
Ref:	NR/L2/CTM/012
Issue:	3
Date:	03 September 2011
Compliance date:	02 June 2012

Level 2

Competence and Training in Signal Engineering

Endorsement and Authorisation

Endorsed by:



Joe McGinlay, Working Group Chair

Authorised by:



Guy Wilmshurst-Smith, Steering Group Chair

Accepted for issue by:



Mick McManus, National Standards Manager

This document is the property of Network Rail. It shall not be reproduced in whole or part nor disclosed to a third party without the written permission of Network Rail.
© Copyright 2011 Network Rail.

Uncontrolled copy once printed from its electronic source.

Published and Issued by Network Rail, Kings Place, 90 York Way, London. N1 9AG.



Documents
Document Sharing Hub

Ref:	NR/L2/CTM/012
Issue: 3	
Date: 03	September 2011
Compliance date:	02 June 2012

Issue record

Issue Date		Comments
01	December 2006	New Issue
02	March 2010	Inclusion of IRSE Licencing performance requirement content. Amendment to Sig 20 and 21. Addition of units of competence for Sig 37, Sig 38, Sig 39, Sig 40, Sig 41, Sig 42, Sig 43, SMTH and SWT
03	September 2011	Ammendment to scope. Addition of units of competence for: Sig 55, Sig 56, and Sig 57

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 02 June 2012.

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.

Reference documentation

NR/L1/CTM/001	Competence Management
NR/L2/CTM/202	Quality Assurance in Training and Assessment
NR/L2/OHS/018	Supplier Requirements for the approval of medical assessments and drug and alcohol screening certification
RT/E/P/10160	Signal Engineering: Implementation of IRSE Licensing Scheme - The Route to Competence

Disclaimer

In issuing this document for its stated purpose, Network Rail makes no warranties, express or implied, that compliance with all or any documents it issues is sufficient on its own to ensure safe systems of work or operation. Users are reminded of their own duties under health and safety legislation.

Supply

Copies of documents are available electronically, within Network Rail's organisation. Hard copies of this document may be available to Network Rail people on request to the relevant controlled publication distributor. Other organisations may obtain copies of this document from IHS. Tel: 01344 328039.

Ref:	NR/L2/CTM/012
Issue: 3	
Date: 03	September 2011
Compliance date:	02 June 2012

Contents

1 Purpose	4
2 Scope	4
3 Definitions	4
4 Requirements	6
5 Application	8
6 Assessment strategy	10
7 Signal engineering training framework summary	12
8 Training requirements	14
9 Competence standards	14

Copyright Network Rail

Ref:	NR/L2/CTM/012
Issue: 3	
Date: 03	September 2011
Compliance date:	02 June 2012

1 Purpose

This specification sets out the minimum requirements for the training and assessment of people who undertake signal engineering work on Network Rail managed infrastructure. It defines processes that to be implemented and the standards to be achieved to confirm that people who undertake signal engineering work are competent to perform the work.

2 Scope

This standard applies to all employers and people who undertake maintenance, faulting, repair, installation and testing of signal equipment on Network Rail managed infrastructure, unless the employer can demonstrate fundamental equality in the assurance of employee competence by using an alternative system.

Refer also to RT/E/P/10160 Signal Engineering: Implementation of IRSE Licensing Scheme - The Route to Competence, for the requirements for IRSE licensing.

3 Definitions

Assessor

A person approved to undertake assessments of people against the requirements of specific Competence Standards.

Assessment

The gathering and judgement of evidence to 'prove' or 'determine' a person's Competence as required by a Competence Standard.

Authority to work

A document that details the work activities that a person is authorised to complete. It includes the details of a person's competence and details of any restrictions that may apply to the way the person works e.g. requirement for supervision.

Candidate

A person whose Competence is assessed by an Assessor.

Competence

The ability to undertake responsibilities and to perform activities to a recognised standard on a regular basis. A combination of practical thinking skills, experience and knowledge, and can include a willingness to undertake work activities in accordance with agreed standards, rules and procedures.

In the context of this standard it also includes the consistent achievement of an identified standard of performance under defined normal, abnormal, and emergency situations; the ability to undertake work in a way that keeps any person who might be affected by the activities safe; and an appropriate level of fitness.

Certificate

A document confirms that specific competence has been demonstrated by an individual against the requirements of a competence standard. The certificate forms the basis for the competence to be added to the Authority to Work.

Ref:	NR/L2/CTM/012
Issue: 3	
Date: 03	September 2011
Compliance date:	02 June 2012

Competence Management System (CMS)

A suitably resourced, logical and integrated cycle of activities within an organisation used to assure competence of those who, through lack of competence, have a impact on the:

- safe operation and maintenance of Network Rail managed infrastructure;
- occupational health and safety of workers on or about the Network Rail or;
- safety of other persons affected by their activities;
- performance of Network Rail's business.

Competence profile

A description of the competences that apply to a specific job role or post. The Competence profile is used to determine the training and assessment requirements for the person occupying the post.

Competence standard

A statement of:

- what a person shall be able to do and how well, in order to achieve the intended outcome of work;
- the range of circumstances in which the ability would have to be demonstrated;
- the knowledge required to complete the work;
- the types of evidence needed to demonstrate that performance is consistent and can be sustained;
- how this would be assessed.

FLMF

First Line Maintenance and Faulting.

Mentoring period

A period of time between the satisfactory completion of training where the person shall undertake the work under supervision of a mentor. This period is used to enable the person to practice the competence and gather evidence ready for assessment.

Person in scope

Anyone whose current or future role involves completing tasks associated with signal engineering maintenance, inspection, installation renewal or testing.

Persons new to signal engineering

Those persons who have not previously undertaken work involving signal engineering maintenance, inspection, renewal or testing tasks. It includes persons that may already be working in, or have worked in, the rail industry before, but in another role, not related to signal engineering. New to signal engineering is not related to grade but to previous experience as described above.

Trainer

A person approved by Network Rail to deliver specific training courses.

Ref:	NR/L2/CTM/012
Issue: 3	
Date: 03	September 2011
Compliance date:	02 June 2012

4 Requirements

4.1 Deployment

Employers shall not deploy any person new to signal engineering on any tasks associated with signal engineering maintenance, inspection or renewal work that has a direct impact on the integrity of the signalling system, until that person has attended and successfully completed the Network Rail Signalling Induction Course.

Additionally people who are not new to signal engineering shall only be deployed on tasks associated with signal engineering work provided the person has attended and successfully completed appropriate training or has been assessed as competent to complete the work. Where a person has been trained they can undertake the work but shall be subjected to an appropriate level of supervision.

4.2 Work on or near the line

Where a person is required to work on or near the line they shall hold the relevant track safety competence(s).

In addition, persons shall be able to demonstrate medical fitness and be screened for alcohol and drugs in accordance with Network Rail Specification NR/L2/OHS/018: Supplier Requirements for the approval of medical assessments and drug and alcohol screening certification.

4.3 Training

Subject to the minimum requirements in **4.1** and **4.2** employers shall have systems in place to identify specific training needs for each person in scope. A training framework and specific training modules have been developed to address the common training needs of persons in scope. Details of this framework are detailed in **7.2**. In addition, a suggested training and development progression guide is outlined in **5.3** for infrastructure maintenance personnel. Employers shall use the information in **7.2** and **5.3** to determine what training is appropriate for each person in scope; they shall additionally use this information to develop training materials in accordance with this standard.

The following steps shall be used and documented to identify and satisfy specific training needs:

- a) identify deployment requirements for the person concerned, taking into account of specific types of equipment that the person shall be required to work on and the type of activities the person shall be required to undertake;
- b) establish the current competence of the person in relation to deployment requirements;
- c) establish what development is required and therefore which training modules are appropriate to match the deployment needs;
- d) agree development plan with the person and establish in what order the training is required to take place;
- e) arrange training;
- f) person completes relevant training.

Ref:	NR/L2/CTM/012
Issue: 3	
Date: 03	September 2011
Compliance date:	02 June 2012

4.4 Mentoring

Following the successful completion of training, where applicable, each person shall be required to undertake a period of workplace experience. The detailed mentoring requirements shall be provided in the requirements for each training course. The person's employer shall appoint a mentor (where required) who shall be responsible for supporting the workplace experience. Employers shall be able to demonstrate that appropriate supervision is maintained during the period of mentoring.

Where new or novel equipment has been installed, in an area, mentors shall be developed in accordance with NR/L2/CTM/306 or the companies own competence management systems.

If, during the mentorship period, insufficient work experience has taken place due to either operational constraints or the infrequent requirement for activities to be completed, the line manager shall make a judgement (levelling/assessing the competence) based on the skills, knowledge and behavioural evidence of the individual. This can also be supplemented by an underpinning knowledge checks or simulation if required. If there is insufficient evidence to remove the requirement for mentoring a development action plan shall be developed to address the issues. This can include, but not limited to;

- supervised practical experience;
- briefing of technical standards;
- professional discussion;
- re-training

Specific mentorship requirements for each of the competences are detailed in the training modules. Where a competence does not have any mentorship requirements, line managers can, where they feel necessary, implement mentorship arrangements.

Each employer shall provide a log book and work experience record, to detail what workplace experience the person has completed for each specific unit of competence and equipment type.

Note1: Additional guidance on mentoring can be found in NR/GN/CTM/401 Learning and Mentoring support

4.5 Assessment

Following successful completion of the relevant training and mentoring the person shall be assessed against the requirements of the relevant competence standard (NR/L2/CTM/012 (/001 – /057))

4.6 Delivery of training

Persons delivering the training listed in 7.2 shall be approved by Network Rail in accordance with the requirements of NR/L2/CTM/202: Quality Assurance in Training and Assessment.

Trainers shall only use the Network Rail approved training plans and assessments to deliver the training event.