

Ref:	NR/L2/CTM/012/046
Issue:	1
Date:	06 March 2010
Compliance date:	04 September 2010

NR/L2/CTM/012/046 Competence & Training in Signal Engineering

SWT Mod 2: Principles Tester.

1 Purpose.

The purpose of this competence standard is to define the competence requirements for persons required to undertake Signalling Principles testing

2 Scope.

This competence standard applies in all circumstances where any person is responsible for Signalling Principles Testing on Network Rail managed infrastructure.

Signalling principles Tester/s test to confirm that the signalling system provided conforms to Railway Group and Network Rail Standards and Statutory requirements and is fit for purpose. Includes Control table Testing, Aspect Sequence Testing and Principles Testing.

3 Competence Standard.

This Competence Standard comprises three elements.

Element 1 Prepare and plan principles testing

Element 2 Undertake Principles testing

Element 3 Confirm the operational status of the signalling system

The first element is concerned with the collection of information to prepare the plan, to identify Health and safety issues and procedures, identification and agreement of protection arrangements. To identify testing operations and methods to be used and special requirements needed, estimate timescales, plan and record the testing, inform the appropriate people when testing is complete and deal with any problems.

The second element is concerned with safe working practices throughout the testing, following procedures for use of tools and equipment. To carry out tests to agreed timescales and record the results review and re-test if required. Deal with damage to working equipment to establish and maintain communications with relevant people.

The third element is concerned with working safely in accordance with the regulations, gathering all data to carry out analysis and compare against specifications and record, dealing with inconsistencies. To decide the course of action based on the testing evidence. Decide actions to be taken where testing cannot be completed.

4 Assessment.

4.1 Initial Assessment

A modular training course is available for Mod 2 which leads to initial competence at Module 2S, subject to mentorship requirements, and employers competence assessment in accordance with NR/L2/SIG/30014/B410.

The simple works control tables testing category is a pre-requisite to the simple works principles testing category. Progression following the Mod 2 training course will normally be control tables testing followed by principles as more experience is

Ref:	NR/L2/CTM/012/046
Issue:	1
Date:	06 March 2010
Compliance date:	04 September 2010

obtained, but depending on the previous experience and competence of the individual, it may be possible for both competencies to be attained simultaneously.

Progression to Mod 2CP shall be via suitable and sufficient work experience under mentorship.

The tester will work towards their IRSE licence.

4.2 Re-Assessment

Licence holders will undergo surveillance after 5 years in order to retain their licence with a renewal IRSE Licensing assessment required after 10 years. Employers may have their own additional assessment processes in addition to this, and shall employ suitable surveillance of SWT staff.

4.3 Knowledge Evidence that is common to the whole unit.

You shall have knowledge and understanding of:

- a) What planning needs to be completed before the work is undertaken, and what information is required.
- b) Information and document systems.
- c) What operational, legislative requirements and signalling principles apply
- d) Health and safety legislation, regulations and safe working practices and procedures.
- e) Information and document systems
- f) How to establish what equipment may be affected by the work and how to define the limits of testing.
- g) What testing procedures/methods are available

Ref:	NR/L2/CTM/012/046
Issue:	1
Date:	06 March 2010
Compliance date:	04 September 2010

Sig Mod 2_Unit –Principles Tester

Element 1: Prepare and plan principles testing

Performance statements.

You shall be able to:

- a. Collect the information needed to prepare your plan for undertaking Principles Testing.
- b. Identify health and safety issues and safe working practices and procedures that shall be followed.
- c. Identify any required protection arrangements and agree and co-ordinate them with the relevant authorities. (Railway Specific)
- d. Identify the testing operations to be carried out and determine their sequence.
- e. Establish which methods are required and what resources are to be used.
- f. Identify any special requirements and incorporate them in your plan for undertaking principles testing.
- g. Estimate timescales required.
- h. Prepare and record your plan for undertaking principles testing.
- i. Inform the appropriate people when your plan for undertaking principles testing is completed.
- j. Deal effectively with problems within your control and report those that cannot be solved.

Scope of Competence.

1. Confirm that the information gathered is relevant to the scheme and is current, complete and authorised.
2. Information includes:
 - Design details / Operational specification
 - Signalling principles / Legislative requirements
 - Testing Plan
3. Identify all the necessary safety requirements and take the relevant action to confirm the safety of yourself, others and railway operations.
4. The safety requirements include: relevant local safety certificates, the implementation of relevant documentation, the implementation of a safe system of work, the use of relevant personal protective equipment.
5. Accurately establish the location of the task, Location may include:
 - External (e.g. trackside) / Internal (e.g. signal box, equipment room etc)
 - Confined spaces / Elevated structures
 - Areas to which the public have access
6. Identify and specify a safe system of work for all aspects of the testing activity for both the operational railway and personnel.
7. Interpretation of the information accurately identifies the type and extent of the tests that are required.
8. Tests include:
 - Functional / Correspondence
 - Aspect sequence / Dynamic
 - System integration
9. Identify the resources that are required. Resources include:
 - Documentation, (current and appropriate)
 - Tools, plant and test equipment (calibrated and serviceable)
 - Materials, replacement equipment and consumables
 - Communication equipment
 - Personnel (total required and competence)