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Issue:	1
Date:	06 March 2010
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NR/L2/CTM/012/047 Competence & Training in Signal Engineering

SWT Mod 3: Signalling Verification Tester.

1 Purpose.

The purpose of this competence standard is to define the competence requirements for persons required to carry out the duties of Signalling Verification Tester.

2 Scope.

This competence standard covers the role of persons undertaking the testing of Signalling systems and equipment to provide suitable and sufficient evidence to confirm that they comply with the design specification, meet the requirements appropriate to the application and are fit for entry into service

The person responsible for undertaking the verification testing of signalling equipment to confirm that the appropriate design, installation and testing specifications are met and that the application is fit for entry into service. Includes location/ equipment rooms inspection, wire count, continuity testing, recovery identification and cable testing.

Module 3 is split into five competencies.

- Mod 3A - Verification Testing of Equipment Housings (factory testing/ non-operational environment.
- Mod 3BL - Functional Testing of Location type circuits
- Mod 3BI - Functional Testing of Interlocking circuits
- Mod 3C - Verification Testing of Equipment Housings (on-site operational environment) environment.
- Mod 3D - Verification Testing of Signalling Cables

3 Competence Standard.

This Competence Standard comprises three elements.

Element 1 Prepare to undertake testing of signalling equipment.

Element 2 Undertake and record tests/checks of Signalling equipment

The first element is concerned with ensuring work locations are accessed safely, to determine the scope of work and the status of previously tested equipment. To identify the testing to be carried out, the methods used and the sequence. Use of documentation and appropriate resources

The second element is concerned with complying with Health and safety and other regulations, following specifications, carry out Tests/Checks using appropriate methods and procedures. Use of correct tools and inspection equipment. To identify and assess defects and variations, to review test results and carry out further testing if necessary. Reporting of testing completion in line with procedures and to identify courses of action from test results.

Ensuring all tools and test devices are removed on completion.

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4 Assessment.

A modular training course is available for all Mod 3 competencies which leads to initial competence in these modules, subject to mentorship requirements, and employers competence assessment in accordance with NR/L2/SIG/30014/B410.

Competence for Mod 3B is split into two categories:

- 3BL Location type circuits.
- 3BI Interlocking circuits

The Locations category is a pre-requisite to the Interlockings category.

It is also possible to carry out conversion training and assessment to convert to Module 3 from SMTH, without attendance at the full modular course(s), due to the previous experience and underpinning knowledge of those holding an SMTH certificate.

The tester will work towards their IRSE license.

4.1 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.

4.2 Knowledge Evidence that is common to the whole unit.

You shall have knowledge and understanding of:

- a) Health and safety legislation, regulations and safe working practices and procedures.
- b) How to interpret and evaluate information
- c) Reporting lines and procedures.
- d) Lines and methods of effective communication.

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Sig Mod 3 Unit – Signalling Verification Tester

Element 1: Prepare to undertake testing of signalling equipment

Performance statements.

You shall be able to:

- a. Confirm work locations are accessed safely, within any agreed timescales and in accordance with the site access procedures. (Railway Specific)
- b. Accurately determine the scope of the work to be carried out, and the status of the previously tested equipment. (Railway Specific)
- c. Identify the Tests to be carried out, the sequence in which they are to be performed, and the methods to be used
- d. Confirm that all documentation required for the work is available, accessible and a current authorised issue. (Railway Specific)
- e. Confirm that all documentation required for the work is available, accessible and a current issue. (Railway Specific)
- f. Check that the resources provided are appropriate for the work (Railway Specific)
- g. Confirm information supplied to the individual testing team members accurately identifies the work to be completed. (Railway Specific)

Scope of Competence.

1. Identify the necessary safety requirements and take relevant action to confirm the safety of yourself, others and railway operations.
2. Accurately establish the location of the task. Locations may include:
 - External (e.g. trackside)
 - Internal (e.g. signal box, equipment room, off-site etc.)
 - Areas to which the Public have access
 - Confined spaces
 - Elevated structures
3. Scope of work includes:
 - Inspection
 - Wire Counting
 - Continuity Tests
 - Insulation Tests
4. Your Interpretation of the information (test specs plans etc) accurately identifies the type and extent of the tests required.
5. Documentation includes:
 - Test plans
 - Design diagrams
 - Specifications
 - Records of previously completed testing
 - Industry procedures