

Overview

This standard identifies the competences you need to establish information for signal engineering maintenance tasks which is technical and detailed and could be from a variety of sources such as drawings, defect history, fault reports, handbooks, maintenance specifications, instructions, procedures and schedules prior to undertaking maintenance and/or fault finding activities. The signalling equipment in this standard can be for over ground or underground rail transportation systems and can be applicable for the new European Train Control System (ETCS).

You will be able to source and interpret the information required to undertake the allocated maintenance and/or fault finding tasks in accordance with your organisation's procedures. You will be required to extract the necessary data from the various specifications and related documentation, in order to establish and carry out the work requirements, and to make valid decisions about the work activities based on the information extracted.

Your responsibilities will require you to comply with organisational policy and procedures for obtaining and using the documentation applicable to the activity. You will be expected to report any problems with the use and interpretation of the data that you cannot personally resolve, or that are outside your permitted authority, to the relevant people. You will be expected to work to instructions, with a minimum of supervision, and to take personal responsibility for your own actions and for the quality and accuracy of the work that you carry out.

Your underpinning knowledge will provide a good understanding of the types of documentation available for use, and will provide an informed approach to applying signal engineering instructions and procedures. You will be able to read and interpret the documentation available, and will know about the conventions, symbols and abbreviations used, in adequate depth to provide a sound basis for carrying out the activities to the required specification.

Safety is a key theme throughout this standard and you will be able to identify all the necessary safety requirements and take the relevant action to ensure the safety of yourself, others and railway operations.

Performance criteria

You must be able to:

1. identify and source the required details for the maintenance and/or fault finding activities
2. obtain and interpret relevant information on technical requirements
3. ensure that the information is current, authorised and contains all essential data
4. identify and deal promptly with information, which is inadequate, contradictory and/or ambiguous
5. identify and deal promptly and effectively with any problems occurring with the requirements and their interpretation

Knowledge and understanding

You need to know and understand:

1. how to source and interpret technical information for maintenance and/or fault finding activities
2. your organisation's procedures for documentation care and control and the requirements for the retention of records
3. how to ensure that documents are current and authorised and reflect the required level of detail
4. how to interpret the relevant conventions, symbols, terminology and abbreviations used in site and equipment diagrams, engineering diagrams and specifications including an understanding of signalling terminology
5. the relevant methods and techniques covering maintenance and/or fault finding of signalling equipment and how to interpret them
6. how to identify, evaluate and respond to problems occurring with the information and its interpretation
7. the relevant reporting lines and procedures that are approved by your organisation
8. the limits of your own authority and responsibility, and those of others involved

Scope/range related to performance criteria

1. Establish the required maintenance technical information for **one** of the following types of signalling equipment:
 1. points
 2. train control (such as signals, balises or other method of authorising train movements)
 3. train detection (such as track circuits or axle counters)
 4. power supplies
 5. ETCS
 6. other industry specific signalling equipment

2. Obtain and interpret information from the following sources as applicable to the equipment being maintained:
 1. drawings
 2. defect history
 3. fault reports (such as customer, monitoring centre)
 4. handbooks
 5. maintenance specifications
 6. instructions
 7. schedules
 8. procedures

Glossary

COSHH

Control of Substances Hazardous to Health Regulations

COSS

Controller of Site Safety

DC

Direct Current

ETCS

European Train Control System

ERTMS

European Train Traffic Management System

HASWA

Health and Safety at Work Act

OHLE

Overhead Line Equipment

PPE

Personal Protective Equipment

PTS

Personal track safety certificate

RIDDOR

Reporting of Injuries, Diseases and Dangerous Occurrences

Regulations

SSOW

Safe System of Work

SWL

Safe Work Leader

Your organisation

This is the company you work for or are contracted to, or, if you are self-employed, the rules you have set for yourself to ensure that you comply with relevant legal and licensing requirements.

Organisation's procedures

These are the procedures your organisation has in place to ensure compliance to the relevant rules, regulations, instructions, policies, procedures and laws relevant to the activity.

SEMRES201

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