Centre for Rail Skills

National Occupational Standards

for the

Maintenance and Renewal of the Permanent Way

November 2003
Introduction

This document sets out the work done within the rail industry to revise the Council for Rail Skills (CfRS), formerly known as the Rail Industry (RITC) National Occupational Standards for Engineering as they relate to the Maintenance and Renewal of the Permanent Way.

These Standards do not refer explicitly to the installation of new Permanent Way. If there is a need for Standards to assess the competence of those working on such installations then some of the Standards for renewals will be appropriate. Also it is considered likely that there will be Standards available for use from the Construction sector.

Those involved with the work have taken, as the basis of their work, the Engineering Competence Standards (ECS) that have been issued by the Occupational Standards Council for Engineering (OSCEng). This is in common with the rest of the engineering work streams within the rail industry and the engineering sector in general.

The reader should note that each unit shows the original ECS component number after the title. The inclusion of the ECS number is to allow all of those involved in the assessment and recording of competence process to trace the contextualised component back to its source.

Furthermore, for the purpose of awarding qualifications, the units have been grouped into frameworks of National and Scottish Vocational Qualifications (N/SVQs) at levels 2 and 3.

These frameworks do NOT include Standards for track welding and related activities. This is the subject of separate work and discussion.

Explanatory Notes on the Structure and Content of the Standards

Each standard (element or single element unit) begins with a brief summary (immediately following the title). This is a short statement that is designed to give the reader a clear idea of what the standard is about. The summary is not part of the standard but it should assist Assessors and Candidates to decide if the unit is appropriate for the functions that need to be assessed.

The “performance statements” list the activities or functions that a competent employee (the Candidate) must be able to do. All of the performance statements must be completed satisfactorily before competence can be confirmed for that standard.

The detail contained in the “scope of the standard” that appears after the performance statements is meant to define the breadth of application of the statement/s. It seeks to provide information about the type of activities that should (or must, in some cases) be performed by the Candidate so that enough valid evidence is provided to confirm competence. Also the scope will provide guidance, where appropriate, about the level of responsible and/or authority of the Candidate.

The scope should also guide the Candidate and his/her Assessor in terms of identifying examples of jobs/tasks that will provide opportunities for the generation of valid evidence.

Further guidance about how much of the scope must be achieved, and how it should be assessed, is contained in the “Evidence requirements” that accompany each standard.

The “Knowledge statements” within each standard set out the level of understanding that a Candidate must have if they are to perform their work safely and acceptably.
A reference to any Act or Regulation does not mean that the Candidate is expected to have a detailed knowledge of its contents. Rather they are expected to have an adequate understanding about how those Acts and Regulations impact upon their work role AND any specific responsibilities that they have under their terms.

The Knowledge statements are linked to the performance statements. In many cases it can be safely inferred that the performance evidence produced by the Candidate meets the Knowledge statements. In other cases questioning will be needed to ensure that the Knowledge statements are met.

**Glossary of terms**

In order to avoid misunderstandings, and to help provide a common basis for assessment, the following words and terms shall be deemed to have the meanings shown for the purposes of these Standards. It is not the purpose of this glossary to define technical engineering terms. Rather the glossary is concerned with helping to clarify words or terms that are associated with the writing of Standards and the principles of assessment, and evidence gathering. This glossary should be read in conjunction with the earlier “Explanatory Notes”.

Words such as “appropriate”, “relevant” and “suitable” shall be taken as meaning the right thing to do or to use. Where there are approved methods set down, or specified people to be contacted, or particular equipment to be used, then these words must be interpreted as meaning compliance with those requirements. For example, in unit P1 (PS b) “Follow the relevant maintenance schedules” means that the schedules to be used will be those that are specified by the company for the type of maintenance required and for the track components concerned. If the employee/candidate faces a situation where the action to take, or the way in which a task should be carried out, is not specified, then due consideration must be given to known good practice and/or the application of common sense.

The term “appreciation” is used in a number of the Evidence Requirements. When used here the term means that the employee/candidate must satisfy the assessor that he/she is aware of the value, purpose and importance of the issue or item concerned. It does not mean that the employee/candidate has to provide evidence of detailed knowledge and understanding of the issue or item.

**Abbreviations**

The following abbreviations are used in one or more of the Standards. Their full meanings are generally understood within the industry but to avoid any misunderstanding they can be taken as meaning:

COSH – Control of Substances Hazardous to Health regulations
OHLE – Over-head Line Equipment
DC – Direct Current
AC – Alternating Current
RIDDOR – Reporting of Injuries, Diseases and Dangerous Occurrences Regulations
N/SVQ – National and Scottish Vocational Qualifications
HR – Human Resources
OTM – On Track Machine
S&C – Switches and Crossings
The Framework of Standards

P1: Undertake routine preventative maintenance of the permanent way (ECS 5.01)
P2: Adjust permanent way assets to meet operating requirements (ECS 5.02)
P3: Replace permanent way assets and components (ECS 5.04)
P4: Install permanent way assets and components (ECS 5.04)
P5: Restore track geometry to operational condition by the manual repair of permanent way assets (ECS 5.06)
P6: Identify and deal with hazards in the railway environment (ECS 7.04)
P7: Prepare small plant, measuring equipment and tools for permanent way renewal or maintenance (ECS 2.13)
P8: Dismantle and remove permanent way assets and components (ECS 5.03)
P9: Develop yourself in the work role (ECS 8.01)
P10: Contribute to effective working relationships (ECS 8.02)
P11: Deal with risks arising from contingencies within the railway (ECS 7.06)
P12: Assess and prepare permanent way materials, components and equipment for moving (ECS 2.14)
P13: Lift and move permanent way materials, components and equipment (ECS 4.08)
P14: Inspect the permanent way infrastructure (ECS 6.06)
P15: Conduct non-destructive testing of rails (ECS 6.02)
P16: Monitor the performance and condition of permanent way assets (ECS 6.04)
P17: Assess the performance and condition of permanent way assets (ECS 6.05)
P18: Undertake detailed inspection of the permanent way infrastructure (ECS 6.06)
P19: Gather and interpret information needed for permanent way engineering activities (ECS 1.13)
P20: Plan permanent way maintenance activities (ECS 1.19)
P21: Establish track geometry and position (ECS 1.17)
P22: Restore track geometry to operational condition by the mechanised repair of permanent way assets (ECS 5.06)
P23: Prepare work areas for permanent way engineering activities (ECS 2.11)
P24: Control the obtaining and preparing of materials and components needed for the renewal or maintenance of the permanent way (ECS 2.12)
P25: Control the preparation of small plant, measuring equipment and tools for permanent way renewal and maintenance (ECS 2.13)
P26: Implement and monitor safe working systems for permanent way maintenance or renewal activities (ECS 1.22)
P27: Secure the work area during and following permanent way maintenance or renewal activities (ECS 2.15)

P28: Minimise the effects of hazards in the railway environment (ECS 7.04)

P29: Control the use of resources to achieve permanent way engineering requirements (ECS 1.26)

P30: Organise and control the work activities of the team (ECS 7.08)

P31: Plan permanent way renewal activities (ECS 1.19)

P32: Control the assessment and preparation of permanent way materials, components and equipment for moving (ECS 2.14)

P33: Ensure that the track is fit for operational purposes following work (ECS 7.01)
Unit P1: Undertake routine preventative maintenance of the permanent way (CfRS/ECS 5.01)

Summary
This covers routine maintenance using basic tools and equipment for work undertaken by track operatives. It includes activities that contribute to the overall safety of staff. These tasks are undertaken regularly and frequently, usually under the guidance and direction of a track supervisor or charge man.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Follow the relevant maintenance schedules to carry out the required work
c. Carry out the maintenance activities within the limits of your personal authority
d. Carry out the maintenance activities in the specified sequence and in an agreed time scale
e. Report any instances where the maintenance activities cannot be fully met or where there are identified defects outside the planned schedule
f. Complete relevant maintenance records accurately and pass them on to the appropriate person

g. Dispose of waste materials in accordance with safe working practices and approved procedures

**Scope of the Standard**

1. **The level and extent of responsibility** includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. **The assets or equipment to be maintained** will be aspects of the track and its associated infrastructure. It could include the maintenance requirements for:

   - Plain line
   - Switches and crossings
   - Drains
   - Vegetation

3. **The types of maintenance activities** involved will follow set procedures and must take account of track access limitations. The activities could include:

   - Tightening to torque bolts, nuts and screws
   - Filling and replenishing lubricators
   - Cleaning out ditches, drains and catch pits
   - Fixing, fitting or refitting pads, insulators, clips, fishplates and bolts
   - Applying lubricants
   - Cutting back/clearing vegetation
   - Removing and disposing of waste
   - Boxing in ballast
Knowledge statements

You must have knowledge and understanding of:

i. **Health and safety legislation, regulations and safe working practices and procedures that must include:**
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii. **Maintenance schedules and related specifications that are set by the company. They must include schedules that are seasonal and periodical.**

iii. **Identification and selection of appropriate permanent way components**

iv. **Maintenance methods and procedures that must include:**
   - Method statements
   - Hot weather restrictions
   - Extreme weather plans

v. **Procedures for the recording of work carried out specified by the company.**

vi. **Calibration checks and care and control procedures specified by the manufacturer.**

vii. **Waste disposal procedures as specified by the company. This will include knowing whom to approach for authorisation.**

viii. **Reporting lines and procedures as specified by the company and must include those required for:**
   - Line management reporting
   - Submission of forms and reports
   - Dealing with problems

ix. **The likely impact of your work on the operations of other departments and the impact of their work for you.**
Unit P2: Adjust permanent way assets to meet operating requirements
(CfRS/ECS 5.02)

Summary
This covers the adjustments made to sleepers, rails, and ballast profiles on plain line, and
switches and crossings, to meet the operational specifications.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Follow the appropriate operating specifications for the equipment being maintained
c. Carry out adjustments within the limits of your personal authority
d. Make the required adjustments in the specified sequence and in an agreed time scale
e. Confirm that the adjusted equipment meets the required operating specification
f. Report any instances where the equipment fails to meet the required performance after
adjustments or where there are identified defects outside the required adjustments
g. Maintain documentation in accordance with organisational requirements

Scope of the Standard

1. **The level and extent of responsibility** includes both your own safety and that of work colleagues.
   Where necessary, authorisation must be obtained before work is carried out. You will be expected to
   work within approved procedures and specifications and will be responsible for the quality of your work.

2. **The type of equipment to be worked on** will be that associated with plain line and switches and
   crossings.

3. **The type and complexity of adjustments to be made** will be:
   
   • Rail adjustment and regulation
   • Adjustment switch setting
   • Sleeper spacing and squaring
   • Ballast re-profiling and boxing-in
   • Stressing rails
   • Straightening of rail ends

4. **The quality standards and accuracy to be achieved** will be in line with the set specifications and
   approved procedures. It must include reinstating assets to within operational tolerances.
Knowledge statements

You must have knowledge and understanding of:

i. **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations

ii. **Maintenance schedules and related specifications** as set by the company. They must include schedules that are seasonal and periodical.

iii. **Maintenance methods and procedures**
    that must include:
    - Method statements
    - Risk assessments
    - Hot weather precaution plans
    - Extreme weather plans
    - Emergency preparedness plans

iv. **Maintenance records and documentation procedures** as specified by the company. The records must be both paper based and computer based.

v. **Equipment operating and care and control procedures** as specified by the company. This must include calibration requirements.

vi. **Waste disposal procedures** as specified by the company. This will include knowing whom to approach for authorisation.

vii. **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems

viii. **The likely impact of your work** on the operations of other departments and the impact of their work for you.
Summary
This covers the replacement work undertaken by an operative during renewal or maintenance activities.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Obtain all the required components and ensure that they are in a suitable condition for replacement and fit for purpose
c. Ensure that any replacement components used meet the required specification
d. Take adequate precautions to prevent damage to components, tools and equipment during replacement
e. Replace the components in the correct sequence using appropriate tools and techniques
f. Make any necessary settings or adjustments to the components to ensure they will function correctly
g. Deal promptly and effectively with problems within your control and report those that cannot be solved
h. Maintain documentation in accordance with organisational requirements

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The type of asset to be worked on will be plain line and switches and crossings equipment and associated fastenings.

3. The type of components to be replaced in respect of either plain line or switches and crossings include:
   - Ballast (wet beds)
   - Rails
   - Sleeper/bearers
   - Drains
   - Fastenings
   - Insulations
   - Chairs and base plates

4. The assembly methods and techniques to be used will include:
   - Manual methods
   - Mechanical methods
   - Use of small plant and equipment

5. The complexity of the assembly operations will be influenced by:
   - Track configuration
   - Using variable/diverse sources of information
   - Track stability procedures
   - Environmental procedures

6. The quality standards and accuracy to be achieved will be as specified by the company and the manufacturer and must include reinstating to operational tolerances.
Knowledge statements

You must have knowledge and understanding of:

i Health and safety legislation, regulations and safe working practices and procedures that must include:

- Safety Critical Work Regulations
- Relevant sections of the Health and Safety at Work Act
- COSHH
- Track access restrictions
- Current rule book
- Regulations for working under OHLE and in the vicinity of DC lines where appropriate
- Manual handling regulations

ii Related specifications as issued by the company.

iii Component assembly methods and techniques as specified by the company. These can be:

- Manual
- Mechanical
- Measuring to check tolerance

iv Handling equipment, methods and techniques as specified by the company including:

- Manual handling
- Mechanical handling
- Use of small tools
- Equipment handling

v Tool and equipment care and control procedures as specified by the company. It must include calibration requirements.

vi Reporting lines and procedures as specified by the company and must include those required for:

- Line management reporting
- Submission of forms and reports
- Communicating with the client
- Dealing with problems

vii The likely impact of your work on the operations of other departments and the impact of their work for you.
Unit P4: Install permanent way assets and components (CfRS/ECS 5.04)

Summary
This covers the installation of new or serviceable components by an operative during renewal or maintenance activities.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Obtain all the required components and ensure that they are in a suitable condition for replacement and fit for purpose
c. Ensure that any replacement components used meet the required specification
d. Take adequate precautions to prevent damage to components, tools and equipment during replacement
e. Replace the components in the correct sequence using appropriate tools and techniques
f. Make any necessary settings or adjustments to the components to ensure they will function correctly
g. Deal promptly and effectively with problems within your control and report those that cannot be solved
h. Maintain documentation in accordance with organisational requirements

Scope of the Standard
1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The type of asset to be worked on will be permanent way equipment and associated fastenings.

3. The type of components to be installed in respect of either plain line or switches and crossings include:
   - Ballast (wet beds)
   - Rails
   - Sleeper/bearers
   - Drains

4. The installation and assembly methods and techniques to be used will be those for both temporary and permanent situations and will include:
   - Manual methods
   - Mechanical methods
   - Use of small plant and equipment

5. The complexity of the installation operations will be influenced by:
   - Track configuration
   - Using variable/diverse sources of information
   - Track stability procedures
   - Environmental procedures

6. The quality standards and accuracy to be achieved will be as specified by the company and the manufacturer and must include reinstating to operational tolerances.
Knowledge statements

You must have knowledge and understanding of:

i  **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations
   - Lifting regulations

ii **Related specifications** as issued by the company.

iii **Component installation and assembly methods and techniques** as specified by the company. These must include both temporary and permanent situations and will include:
   - Manual methods
   - Mechanical methods
   - Measuring to check tolerance

iv **Handling equipment, methods and techniques** as specified by the company including:
   - Manual handling
   - Mechanical handling
   - Use of small tools
   - Equipment handling

v **Tool and equipment care and control procedures** as specified by the company. It must include calibration requirements.

vi **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems

vii **The likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P5: Restore track geometry to operational condition by the manual repair of permanent way assets (CfRS/ECS 5.06)

Summary
This covers the work undertaken by an operative to manually restore top, line, level or gauge.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Follow the relevant specifications for the component to be repaired
c. Prepare the component for repair
d. Carry out the repairs within agreed timescale using approved materials and components and methods and procedures
e. Ensure that the repaired component meets the specified operating conditions
f. Produce accurate and complete records of all repair work carried out

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The type of asset to be repaired will be either plain line or switches and crossings.

3. The complexity of repairs to be carried out will be influenced by geometrical tolerances and clearances. This will involve measuring using tapes and gauges. The repairs will include:
   - Lifting and packing (manual and mechanical)
   - Restoring gauge
   - Restoring alignment
   - Fitting packings

4. The quality standards and accuracy to be achieved will be as specified by the company and the manufacturer and must include restoring components to operational tolerances.
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations

ii **Engineering specifications** as issued by the company and the client for the components concerned.

iii **Component repair methods, techniques and procedures** as approved by the company including those that are:
   - Temporary
   - Permanent

iv **Tool and equipment care and control procedures** as specified by the company. It must include calibration requirements.

v **Maintenance recording and documentation procedures** as specified by the company including:
   - Paper based
   - Computer based

vi **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems

vii **The likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P6: Identify and deal with hazards in the railway environment
(CfRS/ECS 7.04)

Summary
This covers the activities undertaken by an operative to identify, report and rectify (within his/her authority) infrastructure hazards.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Recognise industrial processes, tools, equipment and materials that have the potential to cause harm
c. Check for hazards in the workplace in line with agreed and approved procedures
d. Identify any potential hazards and take appropriate action to minimise the risk from them
e. Report any hazards identified and any actions you have taken

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications.

2. The type of hazards and risks arising will be those that affect:
   - People
   - Property
   - Equipment
   - Environment

3. The hazard checking methods to be used will be specified by the company and the client but will include:
   - Checklists (risk assessment)
   - Site visits

4. The type of workplace and environment could be:
   - On track
   - Off track
   - Within structures

5. The type of action to be taken will include:
   - Implementing preventative measures
   - Working to method statements
   - Applying safeguards/segregation
   - Following pre-site briefings
   - Identifying hazards
   - Reporting hazards
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Hazard directory
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations
   - RIDDOR
   - Safety sign regulations

ii **Hazard spotting and safety assessment methods and techniques** as approved by the company.

iii **Types of hazards involving processes, tools, equipment and materials** that arise from the risk assessments.

iv **Effects of hazards on persons, property and the environment** including:
   - Harm to persons
   - Damage to property
   - Pollution

v **Actions to minimise risk from hazards** as specified in the approved risk control measures.

vi **Safety reporting procedures and documentation** as specified by the company.

vii **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems
Unit P7: Prepare small plant, measuring equipment and tools for permanent way renewal or maintenance (CfRS/ECS 2.13)

Summary
This covers preparations by an operative to ensure that all small plant and equipment required for renewal or maintenance activities are safe, in date and ready for use.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Obtain all the required equipment and ensure that it is in safe and usable condition
c. Carry out the necessary preparations to equipment in line with work requirements
d. Make sure that required safety arrangements are in place to protect other workers from activities likely to disrupt normal working
e. Report completion of preparations in line with organisational procedures
f. Deal promptly and effectively with problems within your control and report those that cannot be solved

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The equipment safety and preparation checks will be conducted by:

   • Visual checks
   • Manual tests

   They will be concerned with establishing:

   • Certification/calibration validity
   • Wear and defects
   • Suitability for task
   • Environmental acceptability
   • Quarantine requirements
   • Fuel and lubricant levels

3. The types of equipment to be prepared will include:

   • Small powered plant (e.g. rail cutting, drilling and adjusting devices)
   • Hand held permanent way tools
   • Measuring equipment
   • Application devices (e.g. brushes, sprays)
   • Lifting tackle
   • Rail tensioning equipment
   • Temporary lighting

   The equipment may be manual, mechanical, hydraulic or electrical.
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii **Equipment preparation methods and procedures** as instructed by the company.

iii **The types of equipment** to be used that could be manual, mechanical or hydraulic and will include:
   - Hand tools
   - Small plant
   - Measuring equipment
   - Application devices
   - Lifting tackle

iv **Equipment care and control procedures** as instructed by the company.

v **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems

vi The **likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P8: Dismantle and remove permanent way assets and components (CfRS/ECS 5.03)

Summary
This covers dismantling and removal work undertaken by an operative during renewal or maintenance activities.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Establish, and where appropriate, mark component orientation for re-assembly
c. Ensure that any stored energy or substances are released safely and correctly
d. Remove the required components using approved tools and techniques
e. Take suitable precautions to prevent damage to components, tools and equipment during removal
f. Check the condition of the removed components and record those that will require replacing
g. Label and store the removed components in an appropriate location
h. Store or discard the removed components in accordance with approved procedures
i. Maintain documentation in accordance with organisational requirements

Scope of the Standard
1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The type of equipment to be dismantled will be that associated with:
   - Plain line
   - Switches and crossings
   - Drains
   - Longitudinal timbers
   - Level crossings

3. The removal techniques or procedures to be followed will be those for both temporary and permanent situations and will include:
   - Unfastening
   - Untying
   - Releasing

   Removal can be by manual and mechanical means.

4. The complexity of the removal operations will be influenced by:
   - Track configuration
   - Using variable/diverse sources of information
   - Track stability procedures
   - Environmental procedures
Knowledge statements

You must have knowledge and understanding of:

i Health and safety legislation, regulations and safe working practices and procedures that must include:

- Safety Critical Work Regulations
- Relevant sections of the Health and Safety at Work Act
- Track access restrictions
- Current rule book
- Regulations for working under OHLE and in the vicinity of DC lines where appropriate
- Manual handling regulations
- Lifting regulations

ii Related specifications as issued by the company.

iii Component removal methods and techniques as specified by the company. These must include both temporary and permanent situations and will include:

- Manual methods
- Mechanical methods

iv Identification of component defects involving the use of:

- Recorded information
- Visual inspection
- Dynamic inspections/observations

v Labelling and storage of components for re-use as required by the company and particularly by:

- Retesting certification procedures
- Visual inspection procedures

vi Disposal of unwanted components and substances as appropriate as required by the company and particularly taking account of:

- Environmental issues
- COSHH
- Waste management regulations

vii Tool and equipment care and control procedures as specified by the company. It must include calibration requirements.

viii Reporting lines and procedures as specified by the company and must include those required for:

- Line management reporting
- Submission of forms and reports
- Communicating with the client
- Dealing with problems

ix The likely impact of your work on the operations of other departments and the impact of their work for you.
Unit P9: Develop yourself in the work role (CfRS/ECS 8.01)

Summary
This covers the development of individuals within their job role and is concerned with future succession and advancement.

Performance statements
You must:

a. Assess your current competence and areas for development using relevant techniques and processes
b. Identify development objectives that are realistic and achievable
c. Review your performance and progress regularly and use the outcome to plan future development activities
d. Seek constructive feedback and advice from others and use it to help you maintain and improve your performance
e. Agree with line management the time and other resources needed to help you achieve the development objectives

Scope of the standard

1. The assessment models, methods and techniques to be used will be those that are used by the company. This can include those that are used for:
   - Self assessment
   - Assessment for Competency requirements and for N/SVQ achievement
   - Professional development achievement

   The sources of guidance will be those that are provided by the company and by other relevant organisations such as Trade Unions and professional bodies. Sources could include:
   - Training Managers and their staff
   - Line Managers
   - HR Department information sheets
   - Professional publications
   - Trade Union journals

   Guidance could relate to:
   - Training opportunities
   - Good practice
   - Resources that are available

4. The setting of personal objectives will be a formal procedure. It will include objectives set by yourself and by agreement with line management. The objectives will relate to:
   - Professional development (including the learning of new skills and updating existing skills)
   - Competency requirements
   - Achievement of N/SVQs

4. The methods of carrying out progress reviews will be those that are specified by the company. It will include the use of evidence that has been gathered for assessing competency requirements and (where agreed) for N/SVQ achievement.
Knowledge statements

You must have knowledge and understanding of:

i  **Training and development opportunities** that are available within the company and that are relevant to your job role and expectations.

ii **Self assessment models and techniques** and how to identify your current level of competence.

iii **How to set development objectives** that are relevant to your work role and expectations.

iv **Working relationships** within the company and the responsibilities of others regarding your professional development.

v **Reporting lines and procedures** as specified by the company and must include those required for:

   • Line management reporting
   • Submission of forms, reports, and requests for training and other personal development issues
   • Dealing with appeals and other problems
Unit P10: Contribute to effective working relationships (CfRS/ECS 8.02)

**Summary**
This covers the skills and abilities required to assist individuals to develop and maintain effective working relationships with colleagues and managers.

**Performance statements**
You must:

a. Establish and maintain productive working relationships
b. Deal with disagreements in an amicable and constructive way so that good relationships are maintained
c. Keep others informed about work plans or activities which affect them
d. Seek assistance from others in a polite and courteous way without causing undue disruption to normal work activities
e. Respond in a timely and positive way when others ask for help or information

**Scope of the standard**
1. The groups of people with which relationships should be maintained will include:
   - Members of own work team and immediate colleagues
   - Line management
   - Members of other departments
   - Client representatives
   - Members of the public that are making legitimate use of the company’s services

   **Communications** will be formal and informal. They will include:
   - Oral communication
   - Written communication
Knowledge statements

You must have knowledge and understanding of:

i  **How to create and maintain good working relationships.** This includes knowing your role and responsibilities within the company and the limits of your own authority. It also includes being aware of the company’s expectations regarding working relationships.

ii  **Problems affecting relationships** including an awareness of the companies policy on equal opportunities and related matters.

iii  **Lines of communication and responsibilities** within the company especially those for:

   - Reporting problems
   - Seeking advice and guidance
   - Submitting reports and requests for action
Unit P11: Deal with risks arising from contingencies within the railway (CfRS/ECS 7.06)

Summary
This covers the immediate actions that need to be taken in the event of any incident and understanding their effect or implication on the safety of the line, life and the environment.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Call for expert help in the event of contingencies occurring, using warning systems as appropriate
c. Take prompt and appropriate action to minimise risk of personal and third party injury as a first priority and then damage to property and equipment
d. Follow shutdown and evacuation procedures promptly and correctly
e. Deal safely with dangers that can be contained using appropriate equipment and materials, in accordance with organisational policy and procedures

Scope of the Standard

1. **The level and extent of responsibility** includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications.

2. **The types of contingencies** will be those affecting:
   a. Safety of the line
   b. Safety of life
   c. Safety of the environment

3. **The actions to be taken** will follow specified procedures such as those for:

   **Contingencies a.**
   - Protection of the line
   - Broken rails
   - Track distortion
   - Bridge strikes
   - Obstructions
   - Rapid response

   **Contingencies b.**
   - Security alert
   - Fencing defects
   - Trespass
   - Contacting of emergency services

   **Contingencies c.**
   - Implementing flood procedures
   - Oil spillage
   - Fire
   - Leaf fall procedures
   - Fumes
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures that must include:**
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations
   - RIDDOR
   - Safety sign regulations

ii **First aid procedures** that are specified by the company.

iii **Evacuation procedures** that are specified by the company.

iv **Actions that can be taken** to deal with the various contingencies including the advice and support to give when dealing with requests for rapid response. This includes communicating effectively with others and in accordance with approved procedures.

v **Ways of obtaining feedback** on the support and advice provided.

vi **Contingency reporting documentation and systems** as specified by the company.

vii **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems
Unit P12: Assess and prepare permanent way materials, components and equipment for moving (CfRS/ECS 2.14)

Summary
This covers activities undertaken by an operative before equipment and materials are moved to ensure that the actual movement will be done safely and correctly.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Establish the weight of the load to be moved
c. Determine the method and select suitable equipment to move the load
d. Check that the equipment to be used is capable of moving the load safely
e. Determine a suitable route for moving the load minimising risk to people and property
f. Ensure that the load is secured and protected before moving operations start
g. Deal promptly and effectively with problems within your control and report those that cannot be solved

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The moving methods and techniques to be used will be manual and mechanical and will include different types of lift. Proper consideration must be given to the nature of the load and its final destination.

3. The type of lifting, moving and handling equipment to be used could include:

- Rail/timber nips
- Jacks
- Grabs
- Slings
- Iron men
- Trolleys
- Rail scooters

4. The characteristics of load to be moved will include:

- Weight distribution
- Shape
- Vulnerability to damage
- Different types of lift
Knowledge statements

You must have knowledge and understanding of:

i  **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations

ii **Lifting, moving and handling equipment, methods and techniques** as instructed by the company.

iii **Establishing the weight of loads** through procedures issued by the company.

iv **Slinging and lifting methods and techniques** that are approved by the company including:
   - Hand signals
   - Dealing with obstructions
   - Securing of loads

v **Lifting equipment care and control procedures** as instructed by the company.

vi **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems

vii The **likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P13: Lift and move permanent way materials, components and equipment (CfRS/ECS 4.08)

Summary
This covers the work undertaken by an operative, such as a slinger or banks man, to position loads using the correct equipment and techniques.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Position the moving equipment so that the weight of the load is evenly distributed
c. Attach the appropriate handling equipment securely to the load, using approved methods to eliminate slippage
d. Confirm that the load is secure before moving
e. Move the load over the selected, suitable route
f. Position and release the load safely in its intended final location

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The moving methods and techniques to be used are manual or mechanical with the aid of lifting devices. The method and techniques used must be in accordance with the instructions and guidance issued by the company. It must include following approved hand signals.

3. The type of moving, lifting and handling equipment to be used must be appropriate for the load to be moved. The equipment/plant to be used will be both manual and mechanical

4. The type and characteristics of load to be moved are those associated with loads of an unwieldy nature, with an uneven weight distribution, and of irregular shape. Some will be robust and some will be fragile. They will include:
   - Rails
   - Switches and crossings
   - Bearers
   - Sleepers
   - Ballast
   - Associated fastenings

5. The final location of the load will be in the approved safe location. The location must ensure that there is little or no chance of damage to the load and that the load does not cause a hazard to people and train/vehicle movements.
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:

- Safety Critical Work Regulations
- Relevant sections of the Health and Safety at Work Act
- COSHH
- Track access restrictions
- Current rule book
- Regulations for working under OHLE and in the vicinity of DC lines where appropriate
- Manual handling regulations
- Approved hand signals for moving loads

ii **Methods and techniques of moving loads** as issued by the company. This will include lifting methods and techniques.

iii **Lifting, moving and handling equipment used when moving loads** that are appropriate for the load to be moved. The equipment to be used for lifting will include:

- Chains
- Straps
- Beams
- Sleeper lifting devices

iv **Load assessment methods and techniques** as approved by the company but will include:

- Observational means
- Load assessment devices
- Weight charts
- Tolerance devices
- Gauging devices

v **Route planning methods and techniques** as approved by the company but will take account of:

- Visual inspection
- Clearances and tolerances
- Load bearing capacities
- Angle of repose

vi **Handling equipment operating and care and control procedures** as instructed by the company including calibration requirements.

vii **Reporting lines and procedures** as specified by the company and must include those required for:

- Line management reporting
- Submission of forms and reports
- Communicating with the client
- Dealing with problems

viii **The likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P14: Inspect the permanent way infrastructure (CfRS/ECS 6.06)

Summary
This covers patrolling and routine inspection work undertaken by an operative to ensure the immediate safety of the line and the identification of medium and long-term deterioration.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Follow the correct specification for the product or equipment being inspected
c. Use the correct equipment to carry out the inspection
d. Identify and confirm the inspection checks to be made and acceptance criteria to be used
e. Carry out all required inspections as specified
f. Identify any defects or variations from the specification
g. Record the results of the inspection in the appropriate format
h. Deal promptly and effectively with problems within your control and report those that cannot be solved

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work. You will be expected to confirm if the track is fit and safe for operational purposes.

2. The type of asset to be inspected will be aspects of the permanent way infrastructure.

3. The aspects, characteristics and complexity of the checks will depend on the components that are to be inspected. The checks will include:

   • Visual checks
   • Physical checks

They will take account of environmental and operating conditions, as specified by the company or client, including:

   • Open to traffic
   • Closed to traffic
   • Restricted track access
   • Day work/night work

4. The inspection methods and techniques to be used will be as specified by the company, client or manufacturer. The type of equipment to be used will include approved hand-tools. This will include taking immediate action to protect the safety of the line such as:

   • Removal of debris
   • Adjusting components

5. The quality standards and accuracy to be achieved will be as specified by the company and the manufacturer and must take account of the approved tolerances.
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii **Engineering specifications** as set by the company for the components concerned.

iii **Inspection methods and techniques** as approved by the company for the inspections to be carried out.

iv **Calibration of equipment and authorisation procedures** as specified by the company including knowing what requires calibration and how to check if it is in calibration.

v **Inspection equipment care and control procedures** as specified by the company.

vi **Identification of defects in products, equipment or systems** by both visual and measured means.

vii **Quality control systems and documentation procedures** as required by the company.

viii **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems
Unit P15: Conduct non-destructive testing of rails (CfRS/ECS 6.02)

Summary
This covers the work undertaken by an operative to test the integrity of rails using non-destructive testing equipment.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Follow the appropriate procedures for use of tools and equipment to carry out the required tests
c. Set up and carry out the tests using the correct procedures and within agreed timescales
d. Record the results of the tests in the appropriate format
e. Review the results and carry out further tests if necessary

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The type of products or assets to be tested will be those associated with:
   - Plain line
   - Switches and crossings

3. The type of tools and test equipment to be used will be that required for rail integrity testing by ultra-sonic and other means.

4. The type and complexity of tests to be carried out will be specified by the company and could include:
   - The use of handheld testing equipment
   - The use of trolley mounted testing equipment
   - Reading and assessing data
   - Specialised techniques

5. The quality standards and accuracy to be achieved will be as specified by the company.
Knowledge statements

You must have knowledge and understanding of:

i  **Health and safety legislation, regulations and safe working practices and procedures** that must include:

- Safety Critical Work Regulations
- Relevant sections of the Health and Safety at Work Act
- COSHH
- Track access restrictions
- Current rule book
- Regulations for working under OHLE and in the vicinity of DC lines where appropriate
- Manual handling regulations

ii **Engineering specifications** as set by the company for the components concerned.

iii **Types of test equipment and their application** as specified by the company for the testing of rails.

iv **Calibration of equipment and authorization procedures** as specified by the company.

v **Testing methods and procedures** as specified by the company.

vi **Analysis methods and techniques** that are appropriate for the testing required.

vii **Environmental controls relating to testing**

viii **Test reporting documentation and procedures** as specified by the company.

ix **Reporting lines and procedures** as specified by the company and must include those required for:

- Line management reporting
- Submission of forms and reports
- Communicating with the client
- Dealing with problems

x **The likely impact of your work** on the operations of other departments and the impact of their work for you
Level 3 Units for Maintenance and Renewal
Unit P16: Monitor the performance and condition of permanent way assets (CfRS/ECS 6.04)

Summary
This covers ongoing periodic checking of the permanent way infrastructure to monitor its condition using gauges and other equipment, and comparing this to previous inspection data.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Correctly set up and check-calibrate the equipment required for the monitoring being carried out
c. Carry out the monitoring activities effectively with minimum disruption to normal activities
d. Record and review the outcomes and take appropriate actions

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications.

2. The type of assets to be monitored will include:

- Plain line (e.g. side-wear, corrosion)
- Switches and crossings
- Track substructure
- Off track structures

3. The monitoring methods will include the use of gauges and other relevant equipment for:

- Measurement
- Static and dynamic tests

4. The monitoring conditions or operating environment will include:

- Open to traffic
- Closed to traffic
- Restricted track access
- Daytime
- Night time
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations

ii **Performance requirements of engineering assets** as specified by the company and the client.

iii **Monitoring methods and procedures for engineering assets** as approved by the company for the monitoring to be carried out.

iv **Importance of the need for equipment calibration and authorisation procedures for the use of the equipment**

v **Monitoring equipment setting, operating and care and control procedures** as specified by the company, client and manufacturer.

vi **Reporting documentation and control procedures** as required by the company and the client.

vii **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes
Unit P17: Assess the performance and condition of permanent way assets (CfRS/ECS 6.05)

Summary
This covers the assessment of the condition of the permanent way infrastructure using data obtained from measuring equipment and by visual or vehicular inspection.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Ensure that you have the necessary test data on which to conduct the assessment
c. Carry out the assessment using all relevant data and valid methods
d. Check that the assessment provides clear and accurate information
e. Compare current performances and condition data with that from previous assessments
f. Identify and report the implications arising from the assessments
g. Record the results of the assessments in the appropriate format

Scope of the Standard
1. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications.
2. The type of assets to be assessed will include:
   - Plain line
   - Switches and crossings
   - Track substructure
   - Off track structures such as bridges, tunnels, embankments and cuttings
3. The type of data to be analysed may relate to:
   - Track geometry (vehicular records including OTM reports, manual, historic and current information)
   - Track inspection records
   - Rail, ballast and sleeper integrity testing reports
   - Rail defect analysis
   - Survey information
   - Dynamic/static readings
   - Off track information
   - Environmental information
4. The analysis methods to be used will include both calculation and comparison.
5. The complexity of monitoring information to be used will depend on the variety and diverse nature of the sources. It will involve calculation by the use of formulas.
Knowledge statements

You must have knowledge and understanding of:

i. **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii. **Equipment operating and test specifications** as specified by the company and the manufacturer.

iii. **Equipment monitoring methods and procedures** as approved by the company and the manufacturers for the assessment to be carried out.

iv. **Assessment methods and techniques** as approved by the company and the manufacturer for the assessment to be carried out. This must include:
   - Reading data
   - Calculation
   - Comparison

v. **Reporting documentation and control procedures** as required by the company and the client.

vi. **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes
Unit P18: Undertake detailed inspection of the permanent way infrastructure (CfRS/ECS 6.06)

Summary
This covers the comprehensive inspection of the infrastructure, verifying reported defects, identifying new defects, prioritising and checking work.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Follow the correct specification for the product or equipment being inspected
c. Use the correct equipment to carry out the inspection
d. Identify and confirm the inspection checks to be made and acceptance criteria to be used
e. Carry out all required inspections as specified
f. Identify any defects or variations from the specification
g. Record the results of the inspection in the appropriate format
h. Deal promptly and effectively with problems within your control and report those that cannot be solved

Scope of the Standard
1. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The type of asset to be inspected is aspects of the permanent way infrastructure.

3. The aspects, characteristics and complexity of the checks will depend on the components that are to be inspected. The checks will include:

   - Visual checks
   - Detailed checks
   - Maintenance quality checks
   - Verification of patrolling records

   They will take account of environmental and operating conditions, as specified by the company or client, including:

   - Open to traffic
   - Closed to traffic
   - Restricted track access
   - Day work/night work

4. The inspection methods and techniques to be used will be as specified by the company, client and manufacturer but must include the use of vehicle trolley and pedestrian means. The types of equipment to be used will include cross levels (dynamic and static) and gauges.

5. The quality standards and accuracy to be achieved will be as specified by the company and the manufacturer and must take account of the approved tolerances. The inspection must be undertaken in a thorough and timely fashion.
Knowledge statements

You must have knowledge and understanding of:

i  **Health and safety legislation, regulations and safe working practices and procedures** that must include:

   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii  **Engineering specifications** as set by the company and the manufacturer for the components concerned.

iii  **Inspection methods and techniques** as approved by the company and the client for the inspections to be carried out.

iv  **Calibration of equipment and authorisation procedures** as specified by the company and the manufacturer including knowing what requires calibration and how to check if it is in calibration.

v  **Inspection equipment care and control procedures** as specified by the company and the manufacturer.

vi  **Identification of defects in products, equipment or systems** by:

   - Visual means
   - Measured means
   - Calculated means

vii  **Quality control systems and documentation procedures** as specified by the company and the client.

viii  **Reporting lines and procedures** as specified by the company and must include those required for:

   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes
Unit P19: Gather and interpret information needed for permanent way engineering activities (CfRS/ECS 1.13)

Summary
This covers the locating and understanding of information contained within drawings and specifications for use by technical and supervisory staff.

Performance Statements
You must:

a. Use the approved source to obtain the required drawings and specifications
b. Correctly interpret the drawings and specifications
c. Identify, extract and interpret the required information
d. Use the information obtained to ensure that work output meets the specification
e. Deal promptly and effectively with any problems within your control and report those which cannot be solved
f. Report any inaccuracies or discrepancies in drawings and specifications

Scope of the Standard

1. The level and extent of responsibility will include making full use of the information obtained and seeking advice from other relevant people if necessary.

2. The type and complexity of drawings and specifications will be those that are required for:
   - Plain line
   - Switches and crossings
   - Drainage

3. The information to be extracted from the drawings and specifications will relate to:
   - Clearances
   - Tolerances
   - Limits
   - Component specifications
   - Quantities and dimensions
Knowledge statements

You must have knowledge and understanding of:

i  **Information and documentation systems** used by the company that must include:
   - Drawing numbering systems
   - Document control systems
   - Filing/Library procedures

ii **Conventions, symbols and abbreviations used** by the company in its engineering drawings and specifications.

iii **Sources of information** and how to access them specifically including:
   - Line Manager
   - Power suppliers
   - Other infrastructure disciplines
   - Manufacturers

iv **How to identify and select the required data** and specifically for:
   - Dimensions
   - Components, specification/types

v **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes
Unit P20: Plan permanent way maintenance activities (CfRS/ECS 1.19)

Summary
This covers the methods that are used by technical and supervisory staff to plan the utilisation of resources for maintenance activities including the estimating of timescales, preparing method statements and special requirements.

Performance Statements
You must:

a. Collect the information needed to prepare the plan
b. Identify health and safety issues and safe working practices and procedures that must be followed
c. Identify the operations to be carried out and determine their sequence
d. Establish which methods are required and what resources are to be used
e. Identify any special requirements and incorporate them in the plan
f. Estimate timescales required
g. Prepare and record the plan
h. Inform the appropriate people when the plan is completed
i. Deal effectively with problems within your control and report those that cannot be solved

Scope of the Standard
1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications.

2. The type of maintenance activities to be planned will include dismantling, replacing, adjusting and maintaining the permanent way infrastructure and may include:
   - Replacement of ballast profile (wet beds)
   - Dealing with clogged and contaminated ballast
   - Replacing and adjusting sleepers and bearers
   - Replacing and adjusting rails (including clips, pads and insulators)
   - Restoring track geometry
   - Maintaining and clearing drains and vegetation
   - Removing waste material
   - Routine preventative maintenance

3. The type of plans to be produced will be those associated with maintaining the permanent way and particularly:
   - Method statements
   - Contingency plans
   - Bar charts/norm times
   - Critical activity milestones
   - Lines open/blocked to traffic
   - A/C and D/C line working and isolations
   - Lead times
   - Site facilities (e.g. accommodation, toilets)

4. The types of resources to be used will include:
   - People (including skill requirements)
   - Plant
   - Equipment
   - Materials
Knowledge statements

You must have knowledge and understanding of:

i. **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii **Planning methods and techniques** that must include:
   - Computer based programmes
   - Diagrammatical plans
   - Resource estimating (quantities and cost)

iii **Information and document systems** as set by the company and particularly:
   - Work plans
   - Written company procedures
   - Method statements
   - Local policy statements
   - Safety briefing procedures
   - Skill data bases
   This will include knowing how to access the information and whom to approach for clarification.

iv **The specifying procedures and guidelines** as set by the company for requesting and securing resources required for the maintenance activities.

v **The presentation of information** requirements of the company using set proformas and templates where appropriate and particularly those for:
   - Work methodology
   - Calculations of man hours
   - Staffing requirements
   - Equipment, tools and materials

vi **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes

vii **The likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P21: Establish track geometry and position (CfRS/ECS 1.17)

Summary
This covers the methods that are used by technical and supervisory staff to gather site information, set out/measure and calculate/mark out, the geometrical requirements within specified tolerances.

Performance Statements
You must:

a. Clearly identify and confirm the objectives to be achieved
b. Assess the work circumstances and their technical implications
c. Identify technical requirements that could deliver the specified objectives
d. Select and specify for implementation the most appropriate technical requirements to achieve the objectives
e. Identify and report those requirements which cannot be achieved

Scope of the Standard

1. **The level and extent of responsibility** includes acquiring the necessary amount of technical knowledge. Advice from other relevant people should be sought where needed. You will be responsible for the quality of your work.

2. **Engineering activities** are concerned with:
   - Gathering information
   - Setting out
   - Measuring
   - Data analysis
   - Mark up
   - Calculation
   - Site surveying

3. **The complexity of the activities** will involve:
   - Calculation by the use of formulas
   - Using variable/diverse sources of information
   - Track configuration
   - Deciding the optimum courses of action

4. **The range of geometry and positioning issues** will include:
   - Top, cross level, alignment and gauge
   - Dynamic movement of the track
   - Drainage, position and gradient
Knowledge statements

You must have knowledge and understanding of:

i  **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii Principles of geometrical engineering and how they are applied to the track.

iii **Information and document systems** as set by the company and particularly:
   - Work plans
   - Method statements
   - Skill data bases
   - This will include knowing how to access the information and whom to approach for clarification.

iv **The structure and content of specifications** including:
   - Company procedures
   - Manufacturers’ specifications and instructions
   - Local instructions

v **The presentation of information** requirements of the company using set proformas and templates where appropriate

vi **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes

vii **The likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P22: Restore track geometry to operational condition by the mechanised repair of permanent way assets (CfRS/ECS 5.06)

Summary
This covers the work undertaken by a technical supervisor to mechanically restore top, line and level.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Follow the relevant specifications for the component to be repaired
c. Prepare the component for repair
d. Carry out the repairs within agreed timescales using approved materials and components and methods and procedures
e. Ensure that the repaired component meets the specified operating conditions
f. Produce accurate and complete records of all repair work carried out

Scope of the Standard

1. **The level and extent of responsibility** includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. **The type of asset to be repaired** will be:
   - Plain line
   - Switches and crossings

3. **The complexity of repairs to be carried out** will be influenced by geometrical tolerances. The candidate must be able to mark out and carry out repairs on all types of track including those with steel, concrete and wood bearers. Dimensional clearances must be taken into account at all times.
   **The nature of the repairs** using mechanized equipment will include:
   - Top alignment
   - Cross level

4. **The quality standards and accuracy to be achieved** will be as specified by the company and the manufacturer and must include restoring components to operational tolerances.
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii **Engineering specifications** as set by the company and the manufacturer for the components concerned.

iii **Component repair methods, techniques and procedures** as approved by the company and the manufacturer including those that are both temporary and permanent.

iv **Mechanised equipment care and control procedures** as specified by the company and the manufacturer. It must include calibration requirements.

v **Maintenance recording and documentation procedures** as required by the company including both paper based and computer based.

vi **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes

vii The **likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P23: Prepare work areas for permanent way engineering activities (CfRS/ECS 2.11)

Summary
This covers the provision of supplies and services to enable work activities to take place thus ensuring the health, safety and welfare of all persons involved.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Ensure that the work environment is suitable for the work activities to be undertaken
c. Ensure that all necessary service supplies are connected and ready for use
d. Prepare the work areas so that they are ready for the engineering activities to be carried out
e. Make sure that required safety arrangements are in place to protect other workers from activities likely to disrupt normal working
f. Report completion of preparations in line with organisational procedures
g. Deal promptly and effectively with problems within your control and report those that cannot be solved

Scope of the Standard

1. **The level and extent of responsibility** includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. **The extent of the work area to be prepared** will be the whole work site that could be on track, off track and adjacent land.

3. **The type of work area preparations** must take account of all relevant environmental considerations and will include the requirements for:
   - Site security and safety
   - Surface preparation
   - Site access and egress
   - Safety signs
   - Water provision
   - Power and lighting
   - Toilets and hygiene facilities
   - Storage areas
   - Accommodation
   - Identification and protection arrangements for all services including those that are buried
   - Notifying neighbouring residents and businesses

The preparations must take account of all relevant environmental considerations.
Knowledge statements

You must have knowledge and understanding of:

i Health and safety legislation, regulations and safe working practices and procedures that must include:

- Safety Critical Work Regulations
- Relevant sections of the Health and Safety at Work Act
- COSHH
- Track access restrictions
- Current rule book
- Regulations for working under OHLE and in the vicinity of DC lines where appropriate
- Safety signs requirements
- Hazard directory

ii Work area preparation requirements and methods as specified by the company and the client and particularly:

- Method statements
- Site visits
- Authorisation to work
- Temporary track access
- Road closures

iii The consequences of not preparing work areas correctly and particularly:

- Safety to the public
- Safety of other employees
- Operational/performance implications

iv Service supply and connection procedures as required by the company and client.

v Reporting lines and procedures as specified by the company and must include those required for:

- Line management reporting
- Submission of forms and reports
- Communicating with the client
- Dealing with problems and disputes

vi The likely impact of your work on the operations of other departments and the impact of their work for you.
Unit P24: Control the obtaining and preparing of materials and components needed for the renewal or maintenance of the permanent way (CfRS/ECS 2.12)

Summary
This covers work undertaken by a track supervisor/charge man prior to renewal or maintenance activities taking place to ensure that correct and adequate materials and components are available.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Obtain the required materials and check them for quantity and quality
c. Determine how the materials need to be prepared
d. Carry out the preparations using suitable equipment
e. Report completion of preparations in line with organisational procedures
f. Deal promptly and effectively with problems within your control and report those that cannot be solved

Scope of the Standard

1. **The level and extent of responsibility** includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications.

2. **The types of components and materials** will include:
   - Ballast
   - Sleepers/bearers
   - Chairs and base plates
   - Insulations
   - Fastenings
   - Rails
   - S&C components
   - Drainage materials and components
   - Consumables
   - Gas bottles (non-welding)

3. **The type and complexity of components and material preparations** relate to rails, sleepers, ballast and drainage, and associated components, and will involve:
   - Handling, stacking and storage
   - Pretreatment
   - Access and surface constraints (e.g. in tunnels, on slopes, bridges, S & C)
   Some of the S&C components may be vulnerable to damage by incorrect handling.
Knowledge statements

You must have knowledge and understanding of:

i Health and safety legislation, regulations and safe working practices and procedures that must include:
- Safety Critical Work Regulations
- Relevant sections of the Health and Safety at Work Act
- COSHH
- Track access restrictions
- Current rule book
- Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii Work area preparation needs and methods as are required by the company and the client and particularly:
- Access requirements
- Storage requirements
- Leveling requirements

iii Identification of materials and recognition of defects by visual means through a knowledge of the manufacture’s and client’s specification.

iv Material handling and preparation methods and techniques including timescales for preparation and:
- Manual handling techniques
- Mechanical handling
- Lifting regulations

v Tool and equipment care and control procedures as specified by the manufacturer, company and client.

vi Reporting lines and procedures as specified by the company and must include those required for:
- Line management reporting
- Submission of forms and reports
- Communicating with the client
- Dealing with problems and disputes
Unit P25: Control the preparation of small plant, measuring equipment and tools for permanent way renewal and maintenance (CfFRS/ECS 2.13)

Summary
This covers work undertaken by a track supervisor/charge man, prior to renewal or maintenance activities, to ensure that correct small plant and equipment are available and are in a proper condition.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Obtain all the required equipment and ensure that it is in safe and usable condition
c. Carry out the necessary preparations to equipment in line with work requirements
d. Make sure that required safety arrangements are in place to protect other workers from activities likely to disrupt normal working
e. Report completion of preparations in line with organisational procedures
f. Deal promptly and effectively with problems within your control and report those that cannot be solved

Scope of the Standard
1. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications.

2. The equipment safety and preparation checks will be conducted by:
   - Visual checks
   - Manual tests
   - System checks

   They will be concerned with gathering information about:
   - Certification/calibration validity
   - Quality assurance criteria
   - Certification/registration
   - Wear and defects
   - Suitability for task
   - Environmental acceptability
   - Quarantine requirements
   - Management of the equipment

3. The types of equipment to be prepared may be manual, mechanical, hydraulic or electrical including:
   - Small powered plant (e.g. rail cutting, drilling and adjusting devices)
   - Hand held permanent way tools
   - Measuring equipment
   - Application devices (e.g. brushes, sprays)
   - Lifting tackle
   - Fuel and lubricant levels plus ensuring the availability of further supplies
   - Rail tensioning equipment
   - Temporary lighting
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Abrasive Wheel Regulations
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii **Equipment preparation methods and procedures** as specified by the manufacturer, company and client.

iii **The types of equipment** to be used that could be manual, mechanical or hydraulic and will include:
   - Hand tools
   - Small plant
   - Measuring equipment
   - Application devices
   - Lifting tackle

iv **Equipment care and control procedures** as specified by the manufacturer, company and the client.

v **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes

vi The **likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P26: Implement and monitor safe working systems for Permanent Way maintenance or renewal activities (CfRS/ECS 1.22)

Summary
This covers methods to establish safe systems of work using technical knowledge and experience of renewal and maintenance activities. This will include the use of necessary documentation to establish safe systems of work.

Performance Statements
You must:

a. Work safely in accordance with the regulations for your work environment
b. Set access controls to meet agreed and approved system procedures
c. Make sure that system records are accurate, up-to-date and complete and are stored correctly
d. Communicate system requirements and the responsibilities of individuals to the appropriate people
e. Review system operations regularly and forward suggestions for improvement to the appropriate people

Scope of the Standard

1. The type and complexity of the environment will be that associated with being on or about the permanent way and must take account of:
   - Lines open/closed to operational traffic
   - Maintenance or renewals activities
   - Requirements for depots, sidings, and the mainline including bi-directional
   - Day/night working
   - Noise
   - Weather

2. The engineering activities will be aspects of the maintenance or renewal of the permanent way. This involves protecting other people from the effects of the engineering work and from the movement of rail vehicles.

3. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications.

4. The methods of communicating will be in accordance with the requirements of the company but must include:
   - Written communication
   - Oral communication
   - Site visits
   - Meetings
Knowledge statements

You must have knowledge and understanding of:

i Health and safety legislation, regulations and safe working practices and procedures that must include:

- Safety Critical Work Regulations
- Relevant sections of the Health and Safety at Work Act
- COSHH
- Track access restrictions
- Current rule book
- Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii Safety assessment methods and techniques that must include:

- Risk assessment
- Safe systems of work

iii The specifying procedures and guidelines as set by the company for obtaining resources.

iv The presentation of information requirements of the company using set proformas and templates where appropriate.

v The organisational information systems and procedures as set by the company and the client.

vi Reporting lines and procedures as specified by the company and must include those required for:

- Line management reporting
- Submission of paperwork
- Communicating with the client
- Dealing with problems and disputes
Unit P27: Secure the work area during and following permanent way maintenance or renewal activities (CFRS/ECS 2.15)

Summary
This covers work undertaken by a track supervisor/charge man to ensure the security of the site, to protect the infrastructure and railway operations from crime. It includes the proper storage of tools, plant and equipment, as well as the disposal of waste materials.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Separate equipment, components, and materials for re-use from waste items and materials
c. Store reusable materials and equipment in an appropriate location
d. Dispose of waste materials in line with organisational and environmental safe procedures
e. Restore the work areas to a safe condition in accordance with agreed requirements and schedules
f. Deal promptly and effectively with problems within your control and report those that cannot be solved

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The nature and complexity of work areas to be secured will be within the boundaries of the site and must take account of:
   - Access and egress requirements (to include isolated and distant locations)
   - Location of the site (rural and urban issues)
   - Restricted spaces (e.g. tunnels, bridges)

3. The resources to be stored should include:
   - Tools, plant and equipment
   - Materials
   - Consumables

   It must include the marking and locating of scrap material for later collection, and the securing and segregating of plant and equipment.

4. The disposal of hazardous and non-hazardous materials will include all handleable items that require storage and/or removal at a later date
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations

ii **Work area restoration requirements** as specified by the company and particularly those concerned with:
   - Risk of vandalism
   - Risk of trespass
   - Risk of animal access

iii **Material and equipment stores procedures** that are specified by the company.

iv **Waste disposal methods and procedures** that are specified by the company.

v **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes

vi The **likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P28: Minimise the effects of hazards in the railway environment  
(CFRS/ECS 7.04)

Summary
This covers the actions taken by a track supervisor/charge man to reduce risks to the infrastructure.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Recognise industrial processes, tools, equipment and materials that have the potential to cause harm
c. Check for hazards in the workplace in line with agreed and approved procedures
d. Identify any potential hazards and take appropriate action to minimise the risk from them
e. Report any hazards identified and any actions you have taken

Scope of the Standard

1. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications. You will make others aware of their responsibilities regarding the identification and reporting of hazards.

2. The type of hazards and risks arising will be those that affect:
   - People
   - Property
   - Equipment
   - Environment

4. The hazard checking methods to be used will be specified by the company and the client but will include:
   - Checklists (risk assessment)
   - Site visits

5. The type of workplace and environment will be:
   - On track
   - Off track
   - Within structures

6. The type of action to be taken will include:
   - Pre site walkout
   - Preparation of method statement
   - Reference to hazard documentation
   - Pre site briefing
   - Preparing segregation statement
   - Assessment of zone limitations
   - Dealing with hazard reports
Knowledge statements

You must have knowledge and understanding of:

i Health and safety legislation, regulations and safe working practices and procedures that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Hazard directory
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations
   - RIDDOR
   - Safety sign regulations

ii Hazard spotting and safety assessment methods and techniques as approved by the company and the client, including risk assessments.

iii Types of hazards involving processes, tools, equipment and materials that arise from the risk assessments.

iv Effects of hazards on persons, property and the environment including:
   - Harm to persons
   - Damage to property
   - Pollution

v Actions to minimise risk from hazards as specified in the approved risk control measures.

vi Safety reporting procedures and documentation as specified by the company and the client.

vii Reporting lines and procedures as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes
Unit P29: Control the use of resources to achieve permanent way engineering requirements (CFRS/ECS 1.26)

Summary
This covers resource planning and availability, dealing with variances and communicating duty of care to the users of the resources.

Performance Statements
You must:

a. Work safely in accordance with the regulations for your work environment
b. Make sure that sufficient resources are available
c. Take prompt and effective action to deal with actual and predicted changes to the planned use of resources
d. Make sure that those using resources are aware of their responsibilities for the care and use of the resources

Scope of the Standard
1. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications.

2. The complexity of the activities will normally be determined by their technical nature. Weather constraints and contingencies may affect the degree of difficulty.

3. The types of resources to be used will include:
   - People (skilled and unskilled)
   - Plant
   - Equipment
   - Materials
   - Time
   - Transportation
Knowledge statements

You must have knowledge and understanding of:

h. **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations

ii **Resource planning methods and techniques** including those that are:
   - Computerised
   - Diagrammatic
   - and involving the use of estimating tools

iii **The information and document systems** as required by the company.

iv **Changes arising to the planned use of resources** especially:
   - Their implications
   - The procedures to follow

v **The communication methods and techniques** required by the company including written and oral methods.

vi **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes

vi The **likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P30: Organise and control the work activities of the team (CFRS/ECS 7.08)

Summary
This covers the role of the track supervisor/charge man to manage the work of others thereby ensuring their health, safety, welfare and the quality and efficiency of their work.

Performance Statements
You must:

a. Identify, plan and record work methods and activities which make optimum use of resources
b. Prioritise work activities to achieve objectives cost-effectively and efficiently
c. Agree and record individual roles and group responsibilities
d. Seek advice from others to help resolve problems
e. Anticipate and show how changes to plans will be accommodated
f. Make a record of agreed work plans and communicate the plans to all involved

Scope of the Standard

1. The type of engineering activities will be aspects of the maintenance or renewal of the permanent way.

2. The complexity of activities could range from minor maintenance to major renewal or repair.

3. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications.

4. The methods of communicating activities can be formal and informal and may be written or oral.
Knowledge statements

You must have knowledge and understanding of:

i Health and safety legislation, regulations and safe working practices and procedures that must include:
   • Safety Critical Work Regulations
   • Relevant sections of the Health and Safety at Work Act
   • COSHH
   • Track access restrictions
   • Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   • Manual handling regulations

ii Planning methods and techniques including those relating to the lifting and moving of large and complex loads.

iii Information systems and procedures as specified by the company and the client.

iv Working relationships as expected by the company and the client in order to foster good teamwork.

v Communication methods and procedures as specified by the company and the client.

vi Reporting lines and procedures as specified by the company and must include those required for:
   • Line management reporting
   • Submission of forms and reports
   • Communicating with the client
   • Dealing with problems and disputes

vii The likely impact of your work on the operations of other departments and the impact of their work for you.
Summary
This covers the methods that are used by technical and supervisory staff to plan the utilization of resources for renewal activities including the estimating of timescales, preparing method statements and special requirements.

Performance Statements
You must:

a. Collect the information needed to prepare the plan
b. Identify health and safety issues and safe working practices and procedures that must be followed
c. Identify the operations to be carried out and determine their sequence
d. Establish which methods are required and what resources are to be used
e. Identify any special requirements and incorporate them in the plan
f. Estimate timescales required
g. Prepare and record the plan
h. Inform the appropriate people when the plan is completed
i. Deal effectively with problems within your control and report those that cannot be solved

Scope of the Standard
1. The level and extent of responsibility includes both your own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out. You will be expected to work within approved procedures and specifications and will be responsible for the quality of your work.

2. The type of renewal activities to be planned will include dismantling, installing and renewing the permanent way infrastructure and specifically:
   - Earthworks, formations and drains
   - Ballast
   - Sleepers and bearers
   - Rails and associated fastenings
   - Restoration of track geometry

3. The type of plans to be produced will be those associated with renewing the permanent way and particularly:
   - Method statements
   - Contingency plans
   - Bar charts/norm times
   - Critical activity milestones
   - Lines open/blocking to traffic
   - A/C and D/C line working and isolations
   - Lead times
   - Site facilities (e.g. accommodation, toilets)

4. The types of resources to be used will include:
   - People (including skill requirements)
   - Plant
   - Equipment
   - Materials
Knowledge statements

You must have knowledge and understanding of:

i  **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii  **Planning methods and techniques** that must include:
   - Computer based programmes
   - Diagrammatical plans
   - Resource estimating

iii  **Information and document systems** as set by the company and particularly:
   - Work plans
   - Written company procedures
   - Method statements
   - Local policy statements
   - Safety briefing procedures
   - Skill data bases
   - This will include knowing how to access the information and whom to approach for clarification.

iv  **The specifying procedures and guidelines** as set by the company for obtaining resources.

v  **The presentation of information** requirements of the company using set proformas and templates where appropriate and particularly those for:
   - Work methodology
   - Calculations of man hours
   - Staffing requirements
   - Equipment, tools and materials

vi  **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes

vii  **The likely impact of your work** on the operations of other departments and the impact of their work for you.
Unit P32: Control the assessment and preparation of permanent way materials, components and equipment for moving (CFRS/ECS 2.14)

Summary
This covers the supervision of preparatory activities before equipment and materials are moved.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Establish the weight of the load to be moved
c. Determine the method and select suitable equipment to move the load
d. Check that the equipment to be used is capable of moving the load safely
e. Determine a suitable route for moving the load minimising risk to people and property
f. Ensure that the load is secured and protected before moving operations start
g. Deal promptly and effectively with problems within your control and report those that cannot be solved

Scope of the Standard

1. **The level and extent of responsibility** includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications.

2. **The moving methods and techniques to be used will involve** a proper consideration of the nature of the load and its final destination. The methods and techniques will include:

3.  
   - Manual handling
   - Use of mechanical devices
   - Single lifts
   - Tandem lifts
   - Staged lifts

   Proper consideration must be given to the nature of the load and its final destination.

4. **The type of lifting, moving and handling equipment to be used** could include:

   - Cranes
   - Road railers
   - Thimbles
   - Mechanical track lifting devices
   - Single line gantry

5. **The characteristics of load to be moved** will typically be concerned with:

   - Weight distribution
   - Shape
   - Vulnerability to damage

They can be robust or fragile.
Knowledge statements

You must have knowledge and understanding of:

i Health and safety legislation, regulations and safe working practices and procedures that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate
   - Manual handling regulations

ii Lifting, moving and handling equipment, methods and techniques as specified by the manufacturer, company and client.

iii Establishing the weight of loads through procedures approved by the manufacturer, company and the client.

iv Slinging and lifting methods and techniques that are approved by the manufacturer and company and particularly:
   - Dealing with obstructions
   - Responding to the crane controller and banks man

v Lifting equipment care and control procedures as specified by the manufacturer, company and client.

vi Route planning methods and techniques including:
   - Safe systems of work
   - Clearances
   - Safety of staff, the public and property

vii Reporting lines and procedures that are specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes

viii The likely impact of your work on the operations of other departments and the impact of their work for you.
Unit P33: Ensure that the track is fit for operational purposes following work (CFRS/ECS 7.01)

Summary
This covers the assessment of the condition of the infrastructure, following completion of maintenance or renewal work carried out, to determine its fitness for use. This includes track that has been taken out of use and takes account of appropriate speed restrictions.

Performance Statements
You must:

a. Work safely at all times, complying with health and safety and other relevant regulations and guidelines
b. Confirm that everyone involved accepts the product or asset is in a satisfactory condition for handover to take place
c. Clearly identify any unusual features of the condition of the product or asset
d. Make the hand over and obtain agreement between everyone involved on the precise moment of transfer of responsibility
e. Make sure that clear, accurate and complete records of the handover are made

Scope of the Standard
1. The level and extent of responsibility includes both your own safety and that of work colleagues. You will be expected to work within approved procedures and specifications.

2. The type of assets will include the track and associated infrastructure following remedial work and inspection.

3. The scale of the work could range from minor maintenance to major renewal/repair activities. This will include:
   - Raising/removing speed restrictions
   - Temporary and permanent situations
   - Major geometrical repair
   - Removal of environmental hazards
Knowledge statements

You must have knowledge and understanding of:

i **Health and safety legislation, regulations and safe working practices and procedures** that must include:
   - Safety Critical Work Regulations
   - Relevant sections of the Health and Safety at Work Act
   - COSHH
   - Track access restrictions
   - Current rule book
   - Regulations for working under OHLE and in the vicinity of DC lines where appropriate

ii **Engineering specifications** as set by the company and the client for the components concerned.

iii **Handover procedures for products or assets** as agreed between the company and the client. This must include the procedures and specifications for:
   - Raising/removing speed restrictions
   - Temporary and permanent situations
   - Major geometrical repair
   - The removal of environmental hazards

iv **Record and documentation systems and procedures** as required by the company and the client.

v **Working relationships** as expected by the company and the client in order to foster good teamwork.

vi **Reporting lines and procedures** as specified by the company and must include those required for:
   - Line management reporting
   - Submission of forms and reports
   - Communicating with the client
   - Dealing with problems and disputes

vii **The likely impact of your work** on the operations of other departments and the impact of their work for you.
EVIDENCE REQUIREMENTS

This section specifies the evidence that candidates must show when their performance and knowledge are Being assessed against this Occupational Standard.
**Unit P1: Undertake routine preventative maintenance of the permanent way (CfRS/ECS 5.01)**

Sufficient evidence must be collected to enable competence to be assessed against all the Performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘a’, ‘b’, ‘c’ and ‘d’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

Performance statements ‘e’, ‘f’ and ‘g’ should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 2, competent performance must be observed in the basic maintenance requirements for either plain line or switches and crossings. An understanding of the requirements for the remaining three areas must also be demonstrated.

Candidates must produce acceptable performance evidence that they can undertake all of the activities described in scope statement 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

**Unit P2: Adjust permanent way assets to meet operating requirements (CfRS/ECS 5.02)**

Sufficient evidence must be collected to enable competence to be assessed against all the Performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘c’, ‘d’ and ‘e’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate knowledge and understanding of all aspects of scope statement 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P3: Replace permanent way assets and components (CfRS/ECS 5.04)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘e’ and ‘f’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 3, Candidates must demonstrate knowledge and understanding of all the types of components listed except for drains. In the case of drains, an appreciation must be demonstrated. They must also demonstrate knowledge and understanding of all aspects of scope statements 4 and 5.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P4: Install permanent way assets and components (CfRS/ECS 5.04)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘e’ and ‘f’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 3, Candidates must demonstrate knowledge and understanding of the first three types of components listed, as well as an appreciation of the fourth component. They must also demonstrate knowledge and understanding of all aspects of Scope statements 4 and 5.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P5:  Restore track geometry to operational condition by the manual repair of permanent way assets (CfRS/ECS 5.06)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘d’ and ‘e’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people. Performance statement ‘f’ must be assessed through the examination of suitable documentary evidence.

The remaining performance statements should include assessment by direct observation if possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 2, Candidates must demonstrate competent performance in either plain line or switches and crossings, as well as knowledge and understanding of the other. In Scope statement 3, candidates must demonstrate competent performance in the first three types of repairs listed, as well as knowledge and understanding of fitting packings.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P6:  Identify and deal with hazards in the railway environment (CfRS/ECS 7.04)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Performance evidence should include direct observation of natural work activities in respect of performance statement ‘c’ wherever possible. If necessary the observation could be of a realistic simulation. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 2, Candidates must demonstrate competent performance in all aspects listed. In scope statement 3, Candidates must demonstrate competent performance in the use of checklists, as well as providing evidence of having undertaken site visits.
In scope statement 4, Candidates must demonstrate competent performance in the on-track environment, as well as an understanding of the actions to be taken in the other workplaces. In Scope statement 5, knowledge and understanding must be demonstrated of all the types of action to be taken.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

**Unit P7: Prepare small plant, measuring equipment and tools for permanent way renewal or maintenance (CfRS/ECS 2.13)**

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence should be the result of real work performance. Evidence from simulated activities is acceptable where shown.

Performance evidence should include direct observation of natural performance in respect of performance statement 'c'. However this could be based on the observation of a simulated activity if necessary. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people. Performance statement 'e' could be assessed through the examination of suitable documentary evidence where appropriate, or through witness testimony from relevant people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate an understanding of all aspects of scope statements 2 and 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P8: Dismantle and remove permanent way assets and components (CFRS/ECS 5.03)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘b’ and ‘d’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 2, Candidates must demonstrate competent performance for either plain line or switches and crossings, as well as an appreciation of all the remaining issues concerned with dismantling. They must also demonstrate knowledge and understanding of all aspects of Scope statements 3 and 4.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P9: Develop yourself in the work role (CFRS/ECS 8.01)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

It is expected that performance evidence for this unit will be gathered as the Candidate works towards his/her N/SVQ or other personal professional development objectives. Therefore it is unlikely that any additional assessment occasions will be needed.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P10: Contribute to effective working relationships (CfRS/ECS 8.02)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

It is expected that performance evidence for this unit will be gathered as the Candidate works towards his/her N/SVQ or carries out normal work activities. Therefore it is unlikely that any additional assessment occasions will be needed.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P11: Deal with risks arising from contingencies within the railway (CfRS/ECS 7.06)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence for this standard should be the result of real work performance wherever possible. However evidence from simulated activities, particularly with regard to performance statement ‘d’ is acceptable.

These performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 2, candidates must demonstrate knowledge and understanding of a) and an appreciation of b) and c). In scope statement 3, candidates must demonstrate knowledge and understanding of all contingencies listed.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
**Unit P12: Assess and prepare permanent way materials, components and equipment for moving (CfRS/ECS 2.14)**

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘d’ and ‘f’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate knowledge and understanding of all aspects of scope statements 3 and 4.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

**Unit P13: Lift and move permanent way materials, components and equipment (CfRS/ECS 4.08)**

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘b’, ‘c’, ‘d’, ‘e’ and ‘f’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statement should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate knowledge and understanding of all aspects of scope statement 4.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P14: Inspect the permanent way infrastructure (CfRS/ECS 6.06)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘c’ and ‘g’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 3, candidates must demonstrate competent performance in both types of checks, as well as an understanding of the inspection regime prevailing in all of the listed conditions.

In scope statement 4, candidates must demonstrate competent performance in the use of appropriate hand tools and show an understanding of the actions to take in order to protect the line.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P15: Conduct non-destructive testing of rails (CfRS/ECS 6.02)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statement ‘c’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people. Performance statement ‘d’ must be assessed through the examination of suitable documentary evidence.

The remaining Performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate competent performance in both aspects of scope statement 2. In scope statement 4, candidates must demonstrate competent performance in both manual and trolley tests, as well as knowledge and understanding of reading and assessing data and specialised techniques.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P16: Monitor the performance and condition of permanent way assets (CfRS/ECS 6.04)

Sufficient evidence must be collected to enable competence to be assessed against all the Performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statement ‘c’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people. Performance statement ‘d’ must be assessed through the examination of suitable documentary evidence.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statements 2, 3 and 4, candidates must demonstrate knowledge and understanding of all assets, methods and conditions.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P17: Assess the performance and condition of permanent way assets (CfRS/ECS 6.05)

Sufficient evidence must be collected to enable competence to be assessed against all the Performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘b’, ‘d’ and ‘f’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 2, Candidates must demonstrate knowledge and understanding of all types of assets. In scope statement 3, candidates must demonstrate knowledge and understanding of any six types of data, as well as an appreciation of all the others listed.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P18: Undertake detailed inspection of the permanent way infrastructure (CFRS/ECS 6.06)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘c’ and ‘g’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 3, Candidates must demonstrate competent performance in all types of checks, as well as an understanding of the inspection regime prevailing in all of the listed conditions.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P19: Gather and interpret information needed for permanent way engineering activities (CFRS/ECS 1.13)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation of the use of suitable documentation in respect of performance statements ‘c’ and ‘d’. These observations should be supported by witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation if it is practical to do so. However if it is not practical to do so then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must show that they can deal with drawings and specifications for all of the items listed in scope statement 2. This should cover all of the issues listed in scope statement 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P20: Plan permanent way maintenance activities (CfRS/ECS 1.19)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include the examination of documentary evidence in respect of Performance statements 'a', 'b', 'c', 'f' and 'g'. These examinations should be supported by the observation of natural performance, witness testimony from appropriate people, and by questioning.

The remaining performance statements should include assessment by direct observation or the examination of suitable documentary evidence wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate that they have a good understanding of at least six of the eight issues listed in scope statement 2. Candidates must demonstrate that they have a good understanding of all the issues listed in scope statement 4. In scope statement 3, competent performance must be observed for the production of method statements and contingency plans; knowledge and appreciation must be demonstrated for the remaining items.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P21: Establish track geometry and position (CfRS/ECS 1.17)

Sufficient evidence must be collected to enable competence to be assessed against all the Performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statement 'b'. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people. Performance statement 'e' should be assessed through the examination of suitable documentary evidence.

The remaining Performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must produce acceptable evidence that they can undertake all of the activities described in scope statement 2 EXCEPT site surveying where an appreciation is required.
Candidates must produce acceptable evidence that they can undertake all of the activities and issues described in scope statements 3 and 4.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

**Unit P22: Restore track geometry to operational condition by the mechanised repair of permanent way assets (CfRS/ECS 5.06)**

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope, and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘d’ and ‘e’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people. Performance statement ‘f’ must be assessed through the examination of suitable documentary evidence.

The remaining Performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these performance statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate competent performance in all issues listed in scope statements 2 and 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
**Unit P23: Prepare work areas for permanent way engineering activities (CFRS/ECS 2.11)**

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include the examination of suitable documentary evidence in respect of performance statements 'c', 'd' and 'e'. These observations should be supported by witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must show that they understand the requirements for all the issues referred to in scope statement 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

**Unit P24: Control the obtaining and preparing of materials and components needed for the renewal or maintenance of the permanent way (CFRS/ECS 2.12)**

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statement 'd'. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people. Performance statement 'e' must be assessed through the examination of suitable documentary evidence.

The remaining Performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate knowledge and understanding of the first seven aspects of scope statement 2 and an appreciation of the remaining three. Candidates must demonstrate knowledge and understanding of all aspects of scope statement 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P25: Control the preparation of small plant, measuring equipment and tools for permanent way renewal and maintenance (CFRS/ECS 2.13)

Sufficient evidence must be collected to enable competence to be assessed against all the Performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence should be the result of real work performance. Evidence from simulated activities is acceptable where shown.

Performance evidence should include direct observation of natural performance in respect of performance statement ‘c’. However this could be based on the observation of a simulated activity if necessary. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people. Performance statements ‘b’ and ‘e’ must be assessed through the examination of suitable documentary evidence.

The remaining Performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate knowledge and understanding of all aspects of scope statements 2 and 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre may prepare set questions to assist this process.

Unit P26: Implement and monitor safe working systems for Permanent Way maintenance or renewal activities (CFRS/ECS 1.22)

Sufficient evidence must be collected to enable competence to be assessed against all the Performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statement ‘b’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people. Performance statement ‘c’ must be assessed through the examination of suitable documentary evidence.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must provide acceptable performance evidence for all of the issues referred to in the scope statements 1 and 4.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P27: Secure the work area during and following permanent way maintenance or renewal activities (CFRS/ECS 2.15)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘b’ and ‘c’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements include assessment by direct observation where possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate knowledge and understanding of all aspects of scope statements 2 and 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P28: Minimise the effects of hazards in the railway environment (CFRS/ECS 7.04)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Performance evidence should include direct observation of natural work activities in respect of performance statement ‘c’ wherever possible. If not, the observation could be of a realistic simulation. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate competent performance in all aspects of Scope statements 2, 3 and 4. They must demonstrate knowledge and understanding of all types of action to be taken in scope statement 5.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
**Unit P29: Control the use of resources to achieve permanent way engineering requirements (CFRS/ECS 1.26)**

Sufficient evidence must be collected to enable competence to be assessed against all the Performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence should include direct observation in respect of performance statement ‘d’ wherever possible. If not, then suitable witness testimony supported by historical evidence (APL/A) can be used. Performance statement ‘b’ must be assessed through the examination of suitable documentary evidence.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must provide acceptable performance evidence for all of the issues referred to in scope statement 3.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

**Unit P30: Organise and control the work activities of the team (CFRS/ECS 7.08)**

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘a’, ‘c’ and ‘f’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must provide acceptable performance evidence for all of the issues referred to in the four scope statements.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.
Unit P31:  Plan permanent way renewal activities (CfRS/ECS 1.19)

Sufficient evidence must be collected to enable competence to be assessed against all the Performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include the examination of documentary evidence in respect of performance statements ‘a’, ‘b’, ‘c’, ‘f’ and ‘g’. These examinations should be supported by the observation of natural performance, witness testimony from appropriate people, and by questioning.

The remaining performance statements should include assessment by direct observation or the examination of suitable documentary evidence wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must demonstrate that they have a good understanding of all the issues listed in scope statements 2 and 4. In scope statement 3, competent performance must be observed for the production of method statements and contingency plans; knowledge and appreciation must be demonstrated for the remaining items.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

Unit P32:  Control the assessment and preparation of permanent way materials; Components end equipment for moving (CfRS/ECS2.14)

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘d’ and ‘f’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statement should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

Candidates must provide acceptable performance evidence for the first three methods and techniques listed in scope statement 2. They must demonstrate an appreciation of the remaining two. In scope statement 3, evidence of competent performance must be provided for both cranes and road railers. Knowledge and understanding must be demonstrated of the remaining items of equipment. Candidates must also demonstrate knowledge and understanding of all aspects of scope statement 4.
Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.

**Unit P33: Ensure that the track is fit for operational purposes following work**

**(CfRS/ECS 7.01)**

Sufficient evidence must be collected to enable competence to be assessed against all the performance statements and their associated scope and the knowledge statements. The evidence must show that the Candidate achieves consistent acceptable performance.

Evidence must be the result of real work performance. Evidence from simulated activities is not acceptable for this standard.

Performance evidence must include direct observation in respect of performance statements ‘c’, ‘d’ and ‘e’. These observations should be supported by the examination of suitable documentary evidence, and witness testimony from appropriate people.

The remaining performance statements should include assessment by direct observation wherever possible. If not, then it is acceptable to assess these statements through suitable historical evidence (APL/A) supported by personal accounts and questioning.

In scope statement 4, Candidates must demonstrate competent performance in raising/removing speed restrictions, as well as an understanding of the other three activities listed.

Candidates must also convince their Assessor that they have the required knowledge and understanding. Where it is not clear from the performance evidence that this is the case, then questions can be used to gather the necessary evidence. The Awarding Body and/or the Assessment Centre will prepare set questions to assist this process.