Assessment Strategy
For
Level 1 NVQ Certificate in Basic Track Maintenance
Level 2 NVQ Award in Rail Engineering Track Maintenance
Level 2 NVQ Certificate in Rail Engineering Track Maintenance
Level 2 NVQ Diploma in Rail Engineering Track Maintenance
Level 3 NVQ Award in Rail Engineering Track Maintenance
Level 3 NVQ Certificate in Rail Engineering Track Maintenance
Level 3 NVQ Diploma in Rail Engineering Track Maintenance
Level 2 NVQ Certificate in Rail Engineering Protection Master
Level 2 NVQ Certificate in Non-Destructive Rail Testing
Level 2 NVQ Certificate in Track Patrolling
based on
GoSkills
National Occupational Standards

1. Introduction

GoSkills, as the Sector Skills Council for the Passenger Transport Sector, is responsible for developing an assessment strategy for the qualifications based on its national occupational standards. This assessment strategy includes the Additional Requirement for Qualifications that use the title NVQ within the QCF which appears as annex 2.

This responsibility means that *GoSkills* must:

a) Recommend how external quality control of assessment will be achieved;

b) Define which aspects of the national occupational standards must always be assessed through performance in the workplace;

c) Define the extent to which simulated working conditions may be used to assess competence and any characteristics that simulations should have, including definitions (where appropriate) of what would constitute a `realistic working environment' (RWE) for the qualifications concerned;

d) Define the occupational expertise requirements for assessors and verifiers in consultation with industry and in agreement with awarding organisations.

This Assessment Strategy for the following qualifications:
Level 1 NVQ Certificate in Basic Track Maintenance
Level 2 NVQ Award in Rail Engineering Track Maintenance
Level 2 NVQ Certificate in Rail Engineering Track Maintenance
Level 2 NVQ Diploma in Rail Engineering Track Maintenance
Level 3 NVQ Award in Rail Engineering Track Maintenance
Level 3 NVQ Certificate in Rail Engineering Track Maintenance
Level 3 NVQ Diploma in Rail Engineering Track Maintenance
Level 2 NVQ Certificate in Rail Engineering Protection Master
Level 2 NVQ Certificate in Non-Destructive Rail Testing
Level 2 NVQ Certificate in Track Patrolling
addresses the four areas indicated above.

2. Review and Evaluation of this Strategy

GoSkills and awarding organisations will continually monitor the effectiveness of this strategy. It will be reviewed annually and revised where necessary every two years. *GoSkills* will therefore establish arrangements for awarding organisations to provide feedback which will assist in the evaluation and review of this strategy. This feedback will also be used to evaluate assessment and verification practices, identify and promulgate good practice and inform any improvements to be made to this strategy.

Awarding organisations and their approved centres will be encouraged to submit comments and suggestions for improvements. This will be through formal dialogue between *GoSkills* and the awarding organisations.

3. External Quality Control of Assessment

The quality of the assessment process is the responsibility of the awarding organisations. *GoSkills* encourages flexibility and innovation of approach alongside robust systems to support quality control. However, awarding organisations must detail their approach to each of the following.

3.1 External Verification

External Verifiers (EVs) should verify assessments at approved centres. The normal frequency of external verification visits is two per year (a total of two days per year). However, the exact frequency should be determined by the risk assessment.

The verification should include inspection of the records of evidence and assessment. Awarding organisations should consider rotating their external verifiers in order to encourage standardisation, independence of assessment and the sharing of good practice.

3.2 Risk Assessment

In order to promote appropriate levels of monitoring of centres, *GoSkills* requires awarding organisations to adopt a risk management system. This approach is consistent with the approach taken by the regulatory authorities. Where there is a risk to the quality and consistency of assessment (eg as a result of commercial interests or as a result of relationships between candidates and assessors), awarding organisations should ensure that appropriate mechanisms are in place to ensure the reliability of the assessment.

Awarding organisations should show that a risk assessment has been carried out for each approved centre and that a strategy to minimise any identified risk has been implemented.

3.3 Awarding Organisation Forum

GoSkills will arrange regular awarding organisation meetings. The aim of the meetings will be to promote consistency in the assessment process. All awarding organisations offering NVQ qualifications as listed in paragraph 1 will be required to attend the awarding organisation forum at least once per year.

4. Evidence

4.1 Evidence from Workplace Performance

Wherever possible, evidence of occupational competence should be generated and collected through performance under workplace conditions. These conditions would be those typical of the candidate's normal place of work. The evidence collected under these conditions should also be as naturally occurring as possible.

It is accepted that not all employees have identical work place conditions and therefore there cannot be assessment conditions that are identical for all candidates. However, assessors must ensure that, as far as possible, the conditions for assessment should be those under which the candidate usually works. Assessment of an individual against the qualification standard must not put that individual under more, or less, pressure than found normally in the workplace. It could be the case that the individual could feel more pressure simply because he or she is being assessed. However, it is the skill of the assessor to reduce this pressure to a minimum.

It is important that the correct asset/component/equipment, in the correct environment, is used when assessing the learner.
The rail industry is a live production environment and assessment “on the job” is not suitable in all instances. The industry has provided guidance as to where an alternative is possible. To support the alternatives the following definitions have been used:

Replication
The asset, component or equipment is in its normal operating condition/status (as in the live environment) but any task is carried out purely for the purposes of the assessment.

An alternative is where the assessment is undertaken in the live environment but the asset, component or equipment has been modified to allow for the assessment (for example, for the replication of fault conditions).

Simulation
The asset component or equipment is reproduced in a protected environment, entirely separate from the live environment (for example, test rig or simulator).

4.2 Use of Simulation in Assessments

As stated above, it is intended that learners should be assessed under normal workplace conditions. However, there are situations where the actual workplace may not be appropriate, or where waiting for naturally occurring evidence is impractical. Therefore, the setting up or devising of assessment situations will be allowed, when it can be demonstrated that the following circumstances require it in areas related to:

- safety
- legislation
- regulation
- contingency
- cost
- significant interruption to candidate's or employer's business

It is recognised that there may be other assessment situations where simulation would be appropriate. In such instances, awarding organisations should give consideration to the reliability and validity of the likely evidence. In all cases, the centre should agree its plans for simulation with the EV to ensure that it is satisfactory.

5. Competence of Assessment Personnel

GoSkills acknowledges the very important role and responsibility that assessors and verifiers have in maintaining the quality and integrity of NVQ QCF Qualifications. Awarding organisations and other stakeholders therefore have to have confidence in the actions and decisions of assessors and verifiers.

5.1 Competence of External Verifiers

A primary responsibility of the external verifier is to assure quality of internal verification and assessments across the centres for which they are responsible and to ensure that centres are assessing in line with the requirements of the National Occupational Standards for Rail Engineering. External verifiers therefore need to have a thorough understanding of quality assurance and assessment practices as well as in-depth technical knowledge related to the qualifications that they are externally verifying.

It will be the responsibility of the awarding organisation to select and appoint external verifiers. Potential external verifiers should:

- hold (or be working towards) an appropriate qualification confirming their competence to externally verify qualifications.

- have an up to date and working understanding of the occupational area they are externally verifying together with a sound knowledge of the occupational standards.

- demonstrate their commitment to maintaining their industry knowledge by ongoing professional development eg through undertaking training courses and/or membership of industry organisations.

5.2 Competence of Internal Verifiers

A primary responsibility of the internal verifier is to assure the quality and consistency of assessments by the assessors for whom they are responsible. Internal verifiers therefore need to have a thorough understanding of quality

assurance and assessment practices, as well as sufficient technical understanding related to the qualifications that they are internally verifying.

It will be the responsibility of the approved centre to select and appoint internal verifiers. Potential internal verifiers should:

- hold (or be working towards) an appropriate qualification confirming their competence to internally verify qualifications;
- hold (or be working towards) an appropriate qualification, as specified by the appropriate regulatory authority, confirming their competence to verify candidates;
- have the necessary and sufficient experience of the role for which they intend to verify assessments. This experience will have provided potential verifiers with detailed knowledge of the functions described by the occupational standards that comprise the qualification

5.3 Competence of Assessors

The primary responsibility of the assessor is to assess candidates to the required quality and consistency, against the national occupational standard. It is important that an assessor can recognise occupational competence as specified by the national standard. Assessors therefore need to have a thorough understanding of assessment and quality assurance practices, as well as have in depth technical understanding related to the qualifications for which they are assessing candidates.

It will be the responsibility of the approved centre to select and appoint assessors. Potential assessors should:

- hold (or be working towards) an appropriate qualification confirming their competence to assess candidates.
- have the necessary and sufficient experience of the role for which they intend to undertake assessments and actual experience of the functions described by the occupational standards that comprise the qualification

5.4 Continued Personal and Professional Development

It is important that verifiers and assessors continue their own development to help them in their respective NVQ roles. It is expected that each approved centre will provide development programmes for its assessors and internal verifiers to maintain their technical or occupational expertise. Awarding organisations should provide development programmes, workshops, seminars, etc, to promote good practice, quality and consistent assessments.

Annex 1

Evidence requirements for the units of assessment in the qualifications listed below are detailed at unit level. The list below indicates which units can be assessed through simulation:

Unit Name	Unit Number	Simulation allowed
Carry out routine inspection of the Permanent Way infrastructure	P1	N
Assist in preparing resources for Permanent Way activities	P2	N
Undertake routine manual maintenance of the Permanent Way	P3	N
Carry out corrective manual adjustments to Permanent Way assets	P4	N
Undertake replacement of Permanent Way assets and components	P5	N
Assist in Installing new Permanent Way assets	P6	N
Restore track geometry to operational condition by the manual repair of Permanent Way assets and components	P7	N
Prepare small plant, measuring equipment and tools for Permanent Way renewal or maintenance	P8	Y
Dismantle and remove Permanent Way assets and components	P9	N
Deal with incidents and contingencies within the railway environment	P10	Y
Assess and prepare Permanent Way materials, components and equipment for moving on site	P11	N
Lift and move Permanent Way materials, components and equipment	P12	N
Carry out non-destructive testing of rails	P13	N
Supervise the non-destructive testing of rails	P14	N
Undertake detailed inspection of the Permanent Way infrastructure	P15	N
Analyse the performance and condition of Permanent Way assets	P16	N
Monitor the performance and condition of Permanent Way assets	P17	N
Gather and interpret information needed for specific Permanent Way engineering activities	P18	N
Plan Permanent Way activities	P19	N
Establish rail track geometry and position	P20	N
Restore plain line track geometry to operational condition	P21	N
Restore rail switches and crossings to operational	P22	N

condition		
Prepare work areas for Permanent Way engineering activities	P23	N
Supervise the obtaining and preparing of materials and components needed for the renewal or maintenance of the Permanent Way	P24	N
Supervise the preparation of small plant, measuring equipment and tools for Permanent Way renewal and maintenance	P25	Y
Implement and monitor safe working systems for Permanent Way activities as a protection master	P27	N
Reinstate the work area after Permanent Way engineering activities	P28	N
Secure the work area during and following Permanent Way activities as site person in charge	P29	N
Allocate and monitor resources for specific Permanent Way engineering activities	P30	N
Supervise the Permanent Way engineering work of a team on site	P31	N
Ensure that the rail track is fit for operational purposes following engineering activity	P33	N
Plan Protection Requirements in the Rail Industry	RS23	Y
Implement Protection Arrangements in the Rail Industry	RS24	N
Prepare to Undertake Duties in the Rail Engineering Industry	RS1	N
Contribute to the Security of the Work Environment in the Rail Industry	RE2	N
Obtain and Communicate Information in the Rail Engineering Industry	RS3	N
Maintain Effective Working Relationships with Colleagues in the Rail Engineering Industry	RS4	N
Maintain and Develop Knowledge, Understanding and Skills in the Rail Engineering Industry	RS5	N
Plan for Further Professional Development in the Rail Engineering Industry	RS6	N
Working in a Rail Engineering Environment	RE7	N
Support Learner by Mentoring in the Rail Engineering Workplace	BACEM40	N
Support Learners by Coaching in the Rail Engineering Workplace	BACEM39	N
Contribute to Safe Working Practices in the Rail Engineering Industry	RE10	N

Annex 2

Assessment guidance has been removed from the new Regulatory Information Technology System (RITS) and has not been transferred from the Web Based Accreditation (WBA) System. Employers in the sector have indicated specific assessment criteria where they have included specific assessment guidance to ensure that the units of assessment are being assessed consistently across all Awarding Organisations centres. This guidance is listed below and should be referred to when producing centre guidance.

P1 - Carry out routine inspection of the Permanent Way infrastructure	
Assessment guidance specified by a sector or regulatory body (if appropriate)	When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P2 - Assist in preparing resources for Permanent Way activities	
Assessment guidance specified by a sector or regulatory body (if appropriate)	When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P3 - Undertake routine manual maintenance of the Permanent Way	
Assessment guidance specified by a sector or	The learner will be expected to work within their organisation's procedures and also within the limits of their own responsibility. The assets or equipment to be maintained will be aspects of the track

regulatory body (if appropriate)	and its associated infrastructure. It could include the maintenance requirements for plain line, switches, drains and vegetation. The types of maintenance activities involved will follow set procedures and must take account of track access limitations. The activities include, as appropriate: • Tightening bolts, nuts and screws to specific requirements • Filling and replenishing lubricators • Cleaning out ditches, drains and catch pits • Fixing, fitting or refitting pads, insulators, rail fastenings, fishplates and bolts • Applying lubricants – point oiling/fishplate greasing • Cutting back/clearing vegetation • Removing and disposing of waste • Boxing in ballast. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment criteria 2.5** the methods, techniques and procedures include as appropriate: • Method statements • Hot weather restrictions • Extreme weather plans • Track work instructions • Task risk control sheets
P4 - Carry out corrective manual adjustments to Permanent Way assets	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The type of asset or component to be worked on will be that associated with plain line switches and crossings involving a single stage process. The type and complexity of adjustments to be made, including as appropriate: • Rail adjustment and regulation • Adjustment switch setting • Sleeper spacing and squaring • Ballast re-profiling and boxing-in • Operational support for Stressing rails • Operational support for Straightening of rail ends • Operational support for point testing

	• Conductor rail (pots, anchors) When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P5 - Undertake replacement of Permanent Way assets and components	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The type of asset to be worked on will be either plain line or switches and crossings equipment and associated fastenings. The type of components to be replaced in respect of either plain line or switches and crossings, including as appropriate: • Ballast (wet beds) • Rails • Sleeper/bearers • Drains • Fastenings • Insulations • Chairs and base plates • Fish-plated joints • Welded joints (preparatory work) • Lubricators The assembly methods and techniques to be used will either be manual and mechanical methods and may include the use of small plant and equipment. The complexity of the assembly operations will be influenced by: • Track configuration • Using variable/diverse sources of information • Track stability • Environmental procedures When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions

	• Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P6 - Assist in Installing new Permanent Way assets	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will perform this assistance as part of a team The type of asset to be worked on will be permanent way equipment and associated fastenings. The type of components to be installed, in respect of either plain line or switches and crossings may include as appropriate: • Ballast • Rails • Switch and crossings • Sleeper/bearers • Drains • Lubrication The installation and assembly methods and techniques to be used will be those for both temporary and permanent situations and could either be manual and mechanical methods and could include the use of small plant and equipment. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P7 - Restore track geometry to operational condition by the manual repair of Permanent Way assets and components	
Assessment	The learner will be expected to work to within their organisation's approved procedures and specifications and will be responsible for the

guidance specified by a sector or regulatory body (if appropriate)	quality of their work within the limits of their responsibility. The type of asset to be repaired will be on plain line The learner will be able to deal with basic manual track repairs as defined by the organisations standards and procedures 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 may include, as appropriate: • Manual lifting and packing • Restoring gauge • Restoring alignment • Fitting packings The quality standards and accuracy to be achieved will be as approved by the learners organisation and the manufacturer and must include restoring components to within operational tolerances. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P8 - Prepare small plant, measuring equipment and tools for Permanent Way renewal or maintenance	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will be required to carry out equipment safety and preparation checks which will be concerned with establishing: • Certification/calibration validity • Wear and defects • Suitability for task • Environmental acceptability • Quarantine requirements • Fuel and lubricant levels • Defect Reporting The equipment may be manual, mechanical, hydraulic or electrical. The types of equipment to be prepared may include, as appropriate:

	• Small powered plant (e.g. rail cutting, drilling and adjusting devices) • Hand held permanent way tools • Measuring equipment (gauges) • Application devices (e.g. brushes, sprays) • Lifting tackle • Rail tensioning equipment • Temporary lighting • Rail mounted plant (e.g. rail grinder, trolley, iron man) For the assessment of 2.3 the equipment includes as appropriate: • Hand tools • Small plant • Measuring equipment • Application devices • Lifting tackle When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P9 - Dismantle and remove Permanent Way assets and components	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will be expected to work within their organisation's procedures and specifications and will be responsible for the quality of their work working within the limits of their own responsibility. The type of equipment to be dismantled will be that associated with, including as appropriate: • Plain line • Switches and crossings • Drains • Longitudinal timbers • Level crossings • Lubricants The manual and/or mechanical removal techniques or procedures to be followed will be those for both temporary and permanent situations, including as appropriate: • Unfastening • Untying • Releasing

	The complexity of the removal operations may be influenced by: • Track configuration • Using variable/diverse sources of information • Track stability procedures • Environmental procedures When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment Criteria 2.5** the methods include as appropriate: • Recorded information • Visual inspection • Dynamic inspections/observations
P10 - Deal with incidents and contingencies within the railway environment	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The types of contingencies will be those affecting: • Safety of the line • Safety of life • Safety of the environment The actions to be taken will follow approved procedures, including as appropriate, those for: • Broken rails • Track distortion • Bridge strikes • Obstructions • Security alert • Fencing defects • Unstable embankments/cuttings • Trespass • Contacting of emergency services • Implementing flood procedures • Oil spillage • Fire • Leaf fall procedures • Fumes • Adverse weather arrangements (Heat duties, Manual de-icing) • Implement Speed Restrictions

	When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P11 - Assess and prepare Permanent Way materials, components and equipment for moving on site	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will need to know the types of moving methods and techniques required for lifting. These methods and techniques may be manual or mechanical and considerations must be given to the nature of the load and its final destination. In order to lift, move and handle equipment the learner must understand the level and extent of their responsibility. The type of lifting, moving and handling equipment to be used may include as appropriate: • Rail/timber nips • Jacks • Grabs • Slings • Iron men • Trolleys • Rail scooters/skates • Cranes • Road/rail vehicles • When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences

	regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment criteria 2.4** the characteristics include: • Weight distribution • Shape /size/length • Vulnerability to damage • Different types of lift **Assessment criteria 2.6** the methods include as appropriate: • Dealing with obstructions • Securing of loads **Assessment criteria 2.8** the methods take into account as appropriate: • Safety considerations. • Obstructions. • Fouling other assets and components. • Most direct route
P12 - Lift and move Permanent Way materials, components and equipment	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The moving methods and techniques to be used are manual or mechanical with the aid of lifting devices and considerations must be given to the nature of the load and its final destination. In order to lift, move and handle loads and equipment the learner must understand the level and extent of their authority and responsibility. The type of moving, lifting and handling equipment to be used must be appropriate for the load to be moved. The type and characteristics of the 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, including as appropriate: • Rails • Switches and crossings • Bearers • Sleepers • Ballast • Associated fastenings The final location of the load will be in the approved safe location. This 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. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH)

	• Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment criteria 2.2** the documentation includes as appropriate: • Licence and/or permit • Lifting plan **Assessment criteria 2.5** the equipment includes as appropriate: • Chains • Straps • Beams • Sleeper lifting devices **Assessment criteria 2.7** the assessments methods/techniques include as appropriate: • Observational means • Load assessment devices • Weight charts • Tolerance devices • Gauging devices **Assessment criteria 2.8** the methods include as appropriate: • Visual inspection • Clearances and tolerances • Load bearing capacities • Angle of repose
P13 - Carry out non-destructive testing of rails	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will know the types of tools and equipment available for rail integrity testing either by ultra-sonic or other means. The type and complexity of tests to be carried out will be approved by their organisation and may include, as appropriate: • The use of handheld testing equipment • The use of trolley mounted testing equipment • The use of train mounted testing equipment • Reading and assessing data • Specialised techniques • Reporting defects When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH)

	• Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P14 - Supervise the non-destructive testing of rails	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will understand a range of techniques, how they are carried out and know the types of tools and equipment available for rail integrity testing either by ultra-sonic or other means. The type and complexity of tests to be carried out will be approved by their organisation and may include: • The use of handheld testing equipment • The use of trolley mounted testing equipment • The use of train mounted testing equipment • Reading and assessing data • Specialised techniques • Reporting defects When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P15 - Undertake detailed inspection of the Permanent Way infrastructure	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The checks may include as appropriate: • Visual checks • Detailed checks • Maintenance quality checks • Ultrasonic testing • Data from track recording vehicles

	Excluded from the checks are full engineering surveys The inspection methods and techniques to be used will be approved by their organisation and may include the use of vehicle trolley or pedestrian means. The types of equipment to be used may include gauges, and the equipment or assets to be inspected may include, as appropriate: • Cross levels (dynamic and static) • Track gauges • Rail profile/condition • Cast crossings • Switches • Crossings • Clearances • Tunnels • Buffer stops • Longitudinal timbers The quality standards and accuracy to be achieved will be approved by the learner's organisation and the manufacturer and must take account of the approved tolerances. The inspection must be undertaken in a thorough and timely fashion. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment criteria 2.5** the constraints include as appropriate: • Open to traffic • Closed to traffic • Restricted track access • Day work/night work **Assessment criteria 2.10** the methods include as appropriate: • Visual means • Measured means • Calculated means
P16 - Transport children and young persons by taxi, private hire or chauffeuring	

Assessment guidance specified by a sector or regulatory body (if appropriate)	The assets may include: • Plain line • Switches and crossings • Track substructure • Off track structures such as bridges, tunnels, embankments and cuttings The type of data to be analysed may relate to: • Track geometry (vehicular records including On Track Machine 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 • Ultrasonic testing records The analysis methods to be used will include both calculation and comparison When assessing the unit the following points should be covered as appropriate: **Assessment criteria 1.5** the methods will include • Reading data • Calculation • Comparison **Assessment criteria 2.1** The following should be covered as appropriate: • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P17 - Monitor the performance and condition of Permanent Way assets	
Assessment guidance specified	The types of assets to be monitored may include as appropriate: • Plain line (e.g. side-wear, corrosion)

by a sector or regulatory body (if appropriate)	• Switches and crossings • Track substructure • Off track structures The manual measuring methods may include the use of gauges and other relevant equipment for: • Measurement • Static and dynamic tests • Friction monitoring The monitoring conditions or operating environment may include as appropriate: • Open to traffic • Closed to traffic • Restricted track access • Daytime • Night time When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P18 - Gather and interpret information needed for specific Permanent Way engineering activities	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will be able to make full use of the information obtained and seek advice from other relevant people or sources as necessary. They will understand the level and extent of their responsibility The type and complexity of diagrams and specifications may include those for: • Plain line • Switches and crossings • Drainage • Structures (Bridges/Tunnels/Platforms) • Track substructure The information to be extracted from the diagrams and specifications will relate to: • Clearances • Tolerances • Limits • Component specifications

	• Quantities and dimensions **Assessment criteria 2.1** the systems include as appropriate: • Drawing numbering systems • Document control systems • Filing/Library procedures • Electronic document systems
P19 - Plan Permanent Way activities	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will know the type and range of plans to be produced and will ensure that the information gathered is relevant to the work to be carried out. They will be able to take into account the activities to be undertaken and the limitations of the work environment. The complexity of the plan will depend on the nature or size of the activity to be undertaken. The type of maintenance activities to be planned may include dismantling, replacing, adjusting and maintaining the permanent way infrastructure and may include as appropriate: • 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 The type of permanent way renewal activities may include dismantling, installing and renewing the permanent way infrastructure and may include as appropriate: • Earthworks, formations, structures and drainage • Ballast • Sleepers and bearers • Rails and associated fastenings • Restoration of track geometry The type of plans to be produced will be those associated with maintaining the permanent way and may include as appropriate: • Method statements • Contingency plans • Bar charts/norm times • Critical activity milestones • Lines open/blocked to traffic • AC and DC line working and isolations • Lead times • Site facilities (e.g. accommodation, toilets) • Lifting plans The types of resources to be used may include: • People (including skill requirements) • Plant • Equipment

	• Materials When assessing the unit the following points should be covered as appropriate: **Assessment criteria 1.4** the resources include as appropriate: • Documentation - current and appropriate • Tools, plant and test equipment - calibrated and serviceable • Materials, replacement equipment and consumables • Communications equipment • Personnel - total required and competence **Assessment criteria 2.1** The following should be covered as appropriate: • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment criteria 2.4** the methods include as appropriate: • Computer-based programmes • Diagrammatical plans • Resource estimating (quantities and cost) **Assessment criteria 2.5** the information and document systems include as appropriate: • Work plans • Written company procedures • Method statements • Local policy statements • Safety briefing procedures • Skill databases
P20 - Establish rail track geometry and position	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will establish track geometry and position through a variety of engineering activities, including as appropriate: • Gathering information • Setting out • Measuring • Data analysing • Marking up • Calculating The complexity of the activities may involve: • Calculating by the use of formulas • Using variable/diverse sources of information

	• Track configuration • Deciding the optimum courses of action The range of geometry and positioning issues may include: • Top, cross level, alignment and gauge • Dynamic movement of the track • Drainage, position and gradient • Structural clearances The level and extent of responsibility includes acquiring the technical knowledge required. Advice from other relevant people should be sought where needed. The learner will be able to take responsibility for the quality of their work. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment criteria 2.3** the information and documents include as appropriate: • Work plans • Method statements • Skill data bases **Assessment criteria 2.5** the specifications include as appropriate • Organisation's procedures • Manufacturers' specifications and instructions • Local instructions
P21 - Restore plain line track geometry to operational condition	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner 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 manual equipment may include as appropriate: • Top • Alignment • Cross level • Track gauge The type of assets to be repaired will be: • Plain line

	The quality standards and accuracy to be achieved will be approved by the learner's organisation and the manufacturer and must include restoring components to within operational tolerances. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P22 - Restore rail switches and crossings to operational condition	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner 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 manual equipment may include as appropriate: • Top • Alignment • Cross level • Track gauge The type of assets to be repaired will be: • Switches and crossings The quality standards and accuracy to be achieved will be approved by the learner's organisation and the manufacturer and must include restoring components to within operational tolerances. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences

	regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P23 - Prepare work areas for Permanent Way engineering activities	
Assessment guidance specified by a sector or regulatory body (if appropriate)	When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment criteria 2.2** the methods and procedures include as appropriate: • Your organisation's procedures • Local policies and procedures • 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
P24 - Supervise the obtaining and preparing of materials and components needed for the renewal or maintenance of the Permanent Way	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The types of components and materials may include as appropriate: • Ballast • Sleepers/bearers • Chairs and base plates • Insulations • Fastenings • Rails • Switch and crossing (S&C) components • Drainage materials and components • Consumables • Gas bottles (non-welding)

	The type and complexity of components and material preparations relate to rails, sleepers, ballast and drainage, and associated components, and may 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 When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment criteria 2.2** the requirements include as appropriate: • Access requirements • Storage requirements • Levelling requirements **Assessment criteria 2.7** the methods and techniques include as appropriate: • Timescales for preparation • Manual handling techniques • Mechanical handling • Lifting regulations • Lifting plans
P25 - Supervise the preparation of small plant, measuring equipment and tools for Permanent Way renewal and maintenance	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The types of equipment to be prepared may be manual, mechanical, hydraulic or electrical, including as appropriate: • 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 The equipment safety and preparation checks may be conducted by: • Visual checks

	• Manual tests • System checks/ pre use They may 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 When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** The following should be covered as appropriate: • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment criteria 2.2** the equipment includes as appropriate: • manual equipment • Mechanical equipment • Hydraulic equipment • Hand tools • Small plant • Measuring equipment • Application devices • Lifting tackle
P27 - Implement and monitor safe working systems for Permanent Way activities as a protection master	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner is protecting other people from the effects of the engineering work and from the movement of rail vehicles. The type and complexity of the environment will be that associated with being on or about the permanent way and must take account of, as appropriate: • Lines open/closed to operational traffic • Maintenance or renewals activities • Requirements for depots, sidings, and the mainline including bi-directional operations

	• Day/night working • Noise • Weather The learner will know and understand the level and extent of their responsibility, including both their own safety and that of work colleagues. Where necessary, authorisation must be obtained before work is carried out and the learner will be expected to work within their organisation's procedures and specifications When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P28 - Reinstate the work area after Permanent Way engineering activities	
Assessment guidance specified by a sector or regulatory body (if appropriate)	When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P29 - Secure the work area during and following Permanent Way activities as site person in charge	
Assessment guidance specified by a sector or	The learner's assessed activities must include the marking and locating of waste material for later collection, and the securing and segregating of plant and equipment.

regulatory body (if appropriate)	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) The resources to be stored may include: • Tools, plant and equipment • Materials • Consumables The disposal of hazardous and non-hazardous materials will include all handleable items that require storage and/or removal at a later date. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P30 - Allocate and monitor resources for specific Permanent Way engineering activities	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner will be aware of their own responsibility for the care and use of resources and will be able to advise team members of their responsibilities for the care and use of resources. The learner will take into account the time the system will be available for the task when considering resources and also any influencing factors such as, environmental, site conditions and the additional requirements for working on operational railway equipment. Identifying inaccuracies and the non-availability of resources and being able to take appropriate remedial action are key to this element. When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book

	• Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment Criteria 2.2** the resources include as appropriate: • People (skilled and unskilled) • Plant • Equipment • Materials • Time • Transportation • Permits and legal documentation **Assessment Criteria 2.3** the techniques include as appropriate: • Computerised • Diagrammatic • The use of estimating tools
P31 - Supervise the Permanent Way engineering work of a team on site	
Assessment guidance specified by a sector or regulatory body (if appropriate)	When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA)
P33 - Ensure that the rail track is fit for operational purposes following engineering activity	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The scale of the work could range from minor maintenance to major renewal/repair activities. This may include as appropriate: • Raising/removing speed restrictions • Temporary and permanent situations • Major geometrical repair • Removal of environmental hazards • Maintenance works or inspections • Track infrastructure • Emergency inspections

	When assessing the unit the following points should be covered as appropriate: **Assessment criteria 2.1** • The organisation's safety management system • Relevant sections of the health and safety at work act • Control of substances hazardous to health (COSHH) • Track access restrictions • Track work instructions • Task risk control sheets • Current rule book • Regulations for working under overhead line equipment (OHLE) and in vicinity of direct current (DC) lines • Manual handling regulations • Reporting of injuries, diseases and dangerous occurrences regulations (RIDDOR) • Safety sign regulations • Personal protective equipment (PPE) • Health and safety at work act (HASWA) **Assessment Criteria 2.3** the situations include as appropriate: • Raising/removing speed restrictions • Temporary and permanent situations • Major geometrical repair • The removal of environmental hazards
RS23 - Plan Protection Requirements in the Rail Industry	
Assessment guidance specified by a sector or regulatory body (if appropriate)	When assessing this unit the following definition should be used: • Hazard - Something with the potential to cause harm (this can include articles, substances, plant or machines, methods of work, the working environment and other aspects of work organisation)
RS24 - Implement Protection Arrangements in the Rail Industry	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The following definition should be used when assessing this unit: • Hazard - Something with the potential to cause harm (this can include articles, substances, plant or machines, methods of work, the working environment and other aspects of work organisation)
RS1 - Prepare to Undertake Duties in the Rail Engineering Industry	
Assessment guidance specified by a sector or regulatory body (if appropriate)	None
RE2 - Contribute to the Security of the Work Environment in the Rail Industry	
Assessment guidance specified by a sector or regulatory body (if appropriate)	None
RS3 - Obtain and Communicate Information in the Rail Engineering Industry	
Assessment guidance specified by a sector or	None

regulatory body (if appropriate)	
RS4 - Maintain Effective Working Relationships with Colleagues in the Rail Engineering Industry	
Assessment guidance specified by a sector or regulatory body (if appropriate)	When assessing this unit the following definition should be used: • Colleagues – include co-workers, supervisors or managers, and possibly trainees
RS5 - Maintain and Develop Knowledge, Understanding and Skills in the Rail Engineering Industry	
Assessment guidance specified by a sector or regulatory body (if appropriate)	None
RS6 - Plan for Further Professional Development in the Rail Engineering Industry	
Assessment guidance specified by a sector or regulatory body (if appropriate)	None
RE7 - Working in a Rail Engineering Environment	
Assessment guidance specified by a sector or regulatory body (if appropriate)	None
BACEM 40 - Support Learner by Mentoring in the Rail Engineering Workplace	
Assessment guidance specified by a sector or regulatory body (if appropriate)	Learners should be able to provide coaching activity to a range of individuals to include, as appropriate: • New starters • Individuals unfamiliar with a particular technical matter • Individuals undertaking training to increase workplace skills • Individuals experiencing difficulty in specific technical aspects of their work • Trainees and other on development programmes Learners should be able to communicate in the following ways: • Face-to face verbal communication • Written communication Mentoring is to support and encourage people to reflect on their performance and manage their own learning in order that they may maximise their potential, develop their skills and improve their performance. Examples of problems may include those from overseas needing language skills, as well as experienced staff requiring further

	development in workplace skills
BACEM 39 - Support Learners by Coaching in the Rail Engineering Workplace	
Assessment guidance specified by a sector or regulatory body (if appropriate)	Learners should be able to provide coaching activity to a range of individuals to include, as appropriate: • New starters • Individuals unfamiliar with a particular technical matter • Individuals undertaking training to increase workplace skills • Individuals experiencing difficulty in specific technical aspects of their work Learners should be able to communicate in the following ways: • Face-to face verbal communication • Small group discussion • Presentation on technical issues to small groups • Written communication • IT based coaching programmes Examples of problems may include, where relevant, those from overseas needing for example language skills, as well as experienced staff requiring further development in workplace skills
RE10 - Contribute to Safe Working Practices in the Rail Engineering Industry	
Assessment guidance specified by a sector or regulatory body (if appropriate)	The learner may be working in a range of environments including • workshop • site • possession • depot When assessing the following criteria Assessment criteria 1.1 the learner may be working in • overhead electrified areas • conductor rail areas Assessment criteria 1.3 the types of equipment may be • electrical • electronic • pneumatic • hydraulic Assessment criteria 1.5 the materials may contain gases Assessment criteria 2.1 the learner should cover the following: • Organisational health and safety policy and procedures • Health and Safety at Work Act 1974 • COSHH regulations • PPE regulations • Confined space regulations • Working at Height regulations • Fire regulations

	• First Aid regulations • Vibration regulations • Role of safety representatives Assessment criteria 2.8 the pollutants may include • toxic gases • explosive gases • chemicals • general waste

Annex 3

Evidence must be collected by observation of naturally occurring activity in the workplace, in respect of the assessment criteria outlined below, supporting evidence and evidence for the remaining assessment criteria can be gathered from sources including observation, questioning, professional discussion, simulation, witness testimony, written and product evidence as outlined at unit level.

Unit Number	Unit	Assessment Criteria
1	Carry out routine inspection of the permanent way infrastructure	Observation
2	Assist in preparing resources for permanent way activities	Range of assessment methods to be used
3	Undertake routine maintenance of the permanent way	Observation via replication if appropriate
4	Carry out routine adjustments to permanent way assets	Observation via replication if appropriate
5	Undertake replacement of permanent way assets and components	Observation via replication if appropriate
6	Install new permanent way assets	Observation via replication if appropriate
7	Restore track geometry to operational condition by the manual repair of permanent way assets	Observation
8	Prepare small plant, measuring equipment and tools for permanent way renewal or maintenance	Observation via replication if appropriate
9	Dismantle and remove permanent way assets and components	Range of assessment methods to be used
10	Deal with incidents and contingencies within the railway environment	Range of assessment methods to be used
11	Assess and prepare permanent way materials, components and equipment for moving	Range of assessment methods to be used
12	Lift and Move Permanent Way Materials, Components and Equipment	Range of assessment methods to be used
13	Carry Out Non-destructive Testing of Rails	Observation
14	Supervise the Non-destructiive Testing of Rails	Range of assessment methods to be used
15	Undertake Detailed Inspection of the Permanent Way Infrastructure	Observation
16	Assess the Performance and Condition of Permanent Way Assets	Range of assessment methods to be used
17	Monitor the Performance and	Range of assessment methods to be

	Condition of Permanent Way Assets	used
18	Gather and Interpret Information Needed for Permanent Way Engineering Activities	Range of assessment methods to be used
19	Plan Permanent Way Activities	Range of assessment methods to be used
20	Establish Track Geometry and Position	Range of assessment methods to be used
21	Restore Plain Line Track Geometry to Operational Condition	Observation
22	Restore Switches and Crossings to Operational Condition	Observation
23	Prepare Work Areas for Permanent Way Engineering Activities	Range of assessment methods to be used
24	Supervise the Obtaining and Preparing of Materials and Components Needed for the Renewal or Maintenance of the Permanent Way	Range of assessment methods to be used
25	Supervise the Preparation of Small Plant, Measuring Equipment and Tools for Permanent Way Renewal and Maintenance	Range of assessment methods to be used
26	Assist in Providing Safe Working Systems for Permanent Way Maintenance or Renewal Activities	Range of assessment methods to be used
27	Implement and monitor safe working systems for permanent way maintenance or renewal activities	Range of assessment methods to be used
28	Reinstate the Work Area after Permanent Way Engineering Activities	Range of assessment methods to be used
29	Secure the Work Area During and Following Permanent Way Maintenance or Renewal Activities	1.6
30	Allocate and Monitor Resources for Permanent Way Engineering Activities	Range of assessment methods to be used
31	Supervise the Engineering Work of the Team	Range of assessment methods to be used
32	Supervise the Assessment, Preparation and Movement of Permanent Way Materials, Components and Equipment	Range of assessment methods to be used
33	Ensure that the Track is Fit for Operational Purposes	Observation
34	Plan protection requirements in the	1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9,

	rail industry	1.10, 1.11, 1.12 (rail services) Range of assessment methods to be used for Pway
35	Implement protection requirements in the rail industry	1.1, 1.2, 1.3, 1.4, 1.5, 1.7

Annex 4

Additional Requirements

for Qualifications that use the title

NVQ within the QCF

September 2009

This document has been produced by the Joint Awarding Body/SSC Working Practices Group which has been formed by the respective representative bodies to support and encourage effective working relationships between SSCs, submitting organisations and awarding organisations. The Group will update the document as necessary to make sure it is kept and to date and relevant and will consider developing additional guidance.

Final Version November 2010

Contents

Purpose of document

1. The purpose of this document is to make clear what additional requirements are needed to assess and quality assure qualifications that use the title NVQ within the QCF.

2. When an SSC/SSB and awarding organisation wants to use the title NVQ in the naming of a qualification within the QCF, the awarding organisation is required to make sure this qualification is assessed and quality assured in accordance with these additional requirements and other requirements described in the SSC/SSB assessment strategy.

3. The aims of these additional requirements are to

    - ensure that all competence based qualifications that use the title NVQ within the QCF are
        - assessed consistently
        - quality assured consistently
    - maintain the integrity of qualifications that use the title NVQ within the QCF
    - establish the NVQ brand within the QCF
    - keep bureaucracy associated with assessment and quality assurance of qualifications that use the title NVQ within the QCF to a minimum.

Background

4. [1] "At the heart of an NVQ is the concept of occupational competence; the ability to perform to the standards required in employment across a range of circumstances and to meet changing demands. NVQs are first and foremost about what people can do. They go beyond technical skills to include planning, problem solving, dealing with unexpected occurrences, working with other people and applying the knowledge and understanding that underpins overall competence".

5. NVQs are based entirely on National Occupational Standards (NOS) developed by an SSC/SSB, which describe the competence needed in an occupational role.

6. Qualifications that use the title NVQ within the QCF must comply with the rules of combination determined by the SSC/SSB. Awarding organisations are not allowed to develop another qualification that does not use the title NVQ within the QCF, if it uses the same rules of combination as a qualification that does use the title NVQ within the QCF.

7. The QCF offers increased flexibility in the way occupational competence can be assessed and demonstrated. Qualifications that use the title NVQ in the title within the QCF are just one way of assessing and demonstrating occupational competence. SSCs/SSBs are free to work with their awarding organisations to agree what qualifications will be used to assess occupational competence. Qualifications that use the title NVQ within the QCF, are not a preferred method for assessing occupational competence and all qualifications accredited through the QCF have equal status.

8. When developing a qualification for the QCF, including qualifications that use the title NVQ within the QCF, an awarding organisation must be a recognised awarding organisation and must meet the Qualification Requirements in the Regulatory Arrangements for the Qualifications and Credit Framework, published by The Office of the Qualifications and Examinations Regulator (Ofqual) in August 2008.

9. The qualification regulators confirmed that a group of SSCs and SSBs would be free to develop specific, additional requirements about the way in which qualifications that use the title NVQ within the QCF will be assessed and quality assured. For those recognised awarding organisations that want to assess occupational competence through the use of qualifications that use the title NVQ within the QCF, it has been agreed by SSCs and SSBs that the following additional requirements must be met.

[1] NCVQ's NVQ Criteria and Guidance 1995.

Additional requirements for qualifications that use the title NVQ within the QCF

Introduction

10. Qualifications that use the title NVQ within the QCF must be assessed and quality assured in accordance with the following additional requirements.

Assessment requirements

11. When a qualification uses the title NVQ within the QCF, awarding organisations are required to make sure their recognised assessment centres understand how learners are to be assessed.

12. Assessment methodologies must meet the assessment strategy developed in partnership between the relevant SSC or SSB and awarding organisations for the qualification. The assessment strategy must be published and made available separately and will include the requirements for assessment of qualifications that use the title NVQ within the QCF. The assessment criteria for each unit will be part of the units that make up the qualification.

13. Learners must complete real work activities in order to produce evidence to demonstrate they have met the NOS and are occupationally competent.

14. When a learner cannot complete a real work activity, simulation is allowed.

15. Simulation is allowed when

- a learner is required to complete a work activity that does not occur on a regular basis and therefore opportunities to complete a particular work activity do not easily arise
- a learner is required to respond to a situation that rarely occurs, such as responding to an emergency situation
- the safety of a learner, other individuals and/or resources will be put at risk.

16. When simulation is used, assessors must be confident that the simulation replicates the workplace to such an extent that learners will be able to fully transfer their occupational competence to the workplace and real situations.

17. Units that must not be assessed by simulation must be identified by the SSC/SSB in the assessment strategy for the qualification or family of qualifications.

18. Learners must be assessed by assessors

- who are occupationally competent in the occupational areas they are assessing where they have sufficient and relevant technical/occupational competence in the unit, at or above the level of the unit being assessed and as defined by the assessment strategy for that qualification
- [2]who must hold or be working towards a suitable assessor qualification to confirm they understand assessment and how to assess learners
- must be fully conversant with the unit(s) against which the assessments and verification are to be undertaken.

19. All assessors must carry out assessment to the standards specified in the A units.

20. All assessment decisions made by a trainee assessor must be checked by a qualified assessor or an assessor recognised by an awarding organisation.

[2] Currently an assessor could hold unit A1 and/or unit A2. Or from the past unit D32 and/or unit D33. SSCs also identify other suitable equivalent qualifications.

21. Trainee assessors must have a plan, which is overseen by the recognised assessment centre, to achieve the relevant assessor qualification(s) within an agreed timescale.

Quality assurance requirements

22. When a qualification uses the title NVQ within the QCF, awarding organisations are required to make sure their recognised assessment centres understand how the qualification will be quality assured.

23. Qualifications that use the title NVQ within the QCF, must be verified

- internally by an internal verifier, who is accountable to the assessment centre
- externally by an external verifier, who is accountable to the awarding organisation or an agent of the awarding organisation.

24. With reference to internal verification, internal verifiers must

- [3]hold or be working towards a suitable internal verifier qualification to confirm they understand how to internally verify assessments
- have sufficient and relevant technical/occupational familiarity in the unit(s) being verified
- be fully conversant with the standards and assessment criteria in the units to be assessed
- understand the awarding organisation's quality assurance systems and requirements for this qualification.

25. Trainee internal verifiers must have a plan, which is overseen by the recognised assessment centre, to achieve the internal verifier qualification within an agreed timescale.

26. With reference to external verification, external verifiers must

- [4]hold or be working towards a suitable external verification qualification to confirm they understand and are able to carry out external verification
- have no connections with the assessment centre, in order to maintain objectivity
- have sufficient and relevant technical/occupational understanding in the unit(s) being verified
- be fully conversant with the standards and performance criteria in the units to be assessed
- understand the awarding organisation's quality assurance systems for this qualification.

27. Trainee external verifiers must have a plan, which is overseen by the awarding organisation, to achieve the external verifier qualification within an agreed timescale.

28. Awarding organisations must decide the frequency of external monitoring activities. Any decision must be based on

- the risks associated with a qualification that is designed to help a learner demonstrate occupational competence
- an evaluation of the centre's performance and past record.

29. Awarding organisations will have in place suitably constituted audit processes, which are supported by naturally occurring quality assurance and monitoring systems that already exist in workplace assessment environments

[3] Currently an internal verifier needs to hold unit V1. Or from the past unit D34. SSCs also identify other suitable equivalent qualifications.

[4] Currently an external verifier needs to hold unit V2. Or from the past unit D35.