ST0316/AP03

Rail Engineering Apprenticeship Standard Rail Engineering Advanced Technician (Level 4) End Point Assessment Plan

Version: 26/09/17

Page **1** of **17**

Contents

Summary of assessment
Detailed Requirements for Occupational Competence
Requirements for Professional Competence
Assessment Overview
Detailed End Point Assessment Plan: Rail Engineering Advanced Technician
Professional Qualifications
Technical Knowledge and Occupational Competence Qualifications
On-programme Assessment
Knowledge and Competence Assessment
Assessment Gateway
End Point Assessment – What will be assessed?
1. Portfolio of Evidence
2. Occupational Competence Validation Interview (Viva)
3. Independent Viva Verification & Professional Assessment against EngTech requirements12
3. Independent Viva Verification & Professional Assessment against EngTech requirements12
 Independent Viva Verification & Professional Assessment against EngTech requirements12 End Point Final Sign Off – Employer Endorsement
 Independent Viva Verification & Professional Assessment against EngTech requirements12 End Point Final Sign Off – Employer Endorsement
 Independent Viva Verification & Professional Assessment against EngTech requirements12 End Point Final Sign Off – Employer Endorsement
 Independent Viva Verification & Professional Assessment against EngTech requirements
 Independent Viva Verification & Professional Assessment against EngTech requirements
 3. Independent Viva Verification & Professional Assessment against EngTech requirements
 Independent Viva Verification & Professional Assessment against EngTech requirements
 3. Independent Viva Verification & Professional Assessment against EngTech requirements

Page **2** of **17**

Summary of assessment

The Rail Engineering Advanced Technician assessment plan is delivered within the 2 phases of the Apprenticeship, these being:

- On Programme Phase
- End Point Assessment and Employer Endorsement Phase

Rail Engineering apprentices will be assessed for the following:

- Technical knowledge against the standard (core and pathway specific requirements)
- Occupational competence (knowledge, behaviours and occupational competencies) against the Standard (core and pathway specific requirements)
- Professional competence (knowledge, behaviours and generic engineering competencies) against UKSPEC EngTech requirements

Detailed Requirements for Occupational Competence

The Rail Engineering employers are keen to ensure the consistency and standard of learning and qualification content is maintained across all Rail Engineering apprenticeships. To enable this they are developing a series of Detailed Requirements Documents which set out the detailed knowledge, skills and behaviours that sit behind the Standard. These are the requirements that the apprentice must achieve in order to demonstrate that they are occupationally competent in the specific job role including areas such as products, processes, procedures, tools, equipment, materials, documentation and information systems.

This approach will allow each organisation to develop their own specific and tailored apprentice on programme assessment structure whilst at the same time ensuring that the overall outcome delivers depth, breadth and stretch to enable progression and/or transferability to other employers. The Detailed Requirements Documents use the National Occupational Standards (NOS) as their basis but also include content required by the standards that has not yet been updated into the NOS. The employers are aware that the Government is currently reviewing the future of NOS and will consider the most appropriate approach regarding the Detailed Requirements Documents once the Governments NOS review outcomes are known.

The Detailed Requirements Documents are under development and will be completed in Q2 2016. Once completed they will form part of the of the Employers Occupational Brief and will be held by The National Skills Academy for Rail (NSAR) on behalf of the Sector employers and will be freely available to all.

Requirements for Professional Competence.

Employers in partnership with relevant Professional Engineering Institutions (PEIs) will also assess the apprentices' competence against the internationally recognised professional standard for an Engineering Technician (EngTech). Apprentices will be assessed against the following criteria:

- 1. Use engineering knowledge and understanding to apply technical and practical skills.
- 2. Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.
- 3. Accept and exercise personal responsibility.
- 4. Use effective communication and interpersonal skills.

Page **3** of **17**

5. Make a personal commitment to an appropriate code of professional conduct, recognising obligations to society, the profession and the environment.

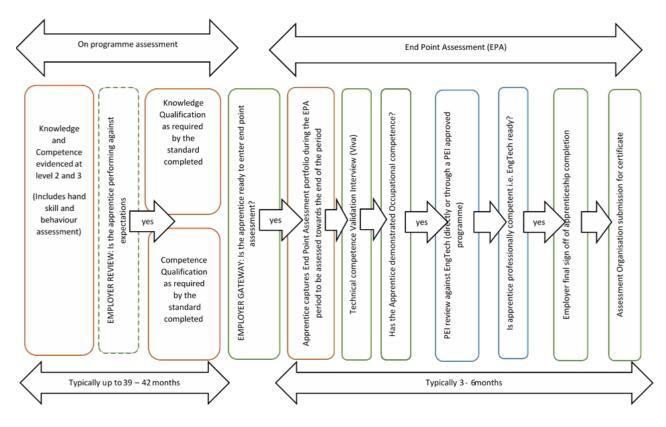
To support the end point assessment, employers and PEIs will develop an Engineering Technician Performance Recording Form, this will be in place before the Apprenticeships go live. Once developed these will be held by The National Skills Academy for Rail (NSAR) on behalf of the Sector employers and will be freely available to all.

Assessment Overview

Following the on programme assessment and verification of employer developed competence and technical knowledge qualifications, the end point assessment takes place, using the following range of assessment methods:

- Apprentices portfolio of evidence of occupational competence
- Occupational competence validation interview (Viva)
- Professional competence assessment undertaken by the PEI
- Final employer endorsement of occupational and professional competence

The following summarises the assessment process:



Page 4 of 17

ST0316/AP03

	Detailed End Point Assessment Plan : Rail Engineering Advanced Technician									
				ramme			End Point Assessment			
							Stage 1	Stage 2	Stage 3	
Evidence of learning	Technical knowledge at L2 and L3 evidenced	AND Competence (Knowledge, Skills & Behaviour) at L2 and L3 evidenced	against expectations?	Technical knowledge qualification (L4)	AND Competence (Knowledge, Skills & Behaviour) based qualification (L4)*	of Apprenticeship Assessment?	End Point Portfolio of Evidence of Occupational Competence prepared by Apprentice during End Point Assessment	Competence & knowledge qualification certificates + End Point Portfolio of competence based evidence + Record of employer viva	Qualification certificates x 2 + Portfolio of evidence & record of employer viva + PEI independent review & recommendation as professionally competent / EngTech ready	Apprentices certificate (see note below **)
Assessment through	Workplace assessment on a continuous basis *		Knowledge based assignments and exams db db db db db db db db db db db db db		the Apprentice ready for End of A	Employer End of Apprenticeship Assessment viva based on set criteria and specific requirements for recording of outputs	PEI review of evidence against UKSPEC EngTech requirements Behaviours, knowledge and generic engineering competence	Final sign off as occupationally competent & apprenticeship completed by employer. Behaviours, knowledge and occupational engineering competence	applies for Apprentices cert	
Grading			/: Is the	Multi Grade	Binary (pass/fail)	Is the A	Binary (pass/fail)	Binary (pass/fail)	Binary (pass/fail)	ation c
Independence through			EMPLOYER REVIEW: Is the	External setting & marking of exams	External verification of assessment	Gateway:	Independent assessor	PEI Assessor. No prior involvement with the learner	Complete End Point Assessment Process	Assessment Organisation
Ву			EMP	Awarding Organisation	Awarding organisation	Employer	Assessor	PEI (on SFA register of assessors)	Employer	Asses
Output				Qualification Certificate	Qualification Certificate	EI	Portfolio of evidence, EngTech report & Record of Viva	Confirmation of EngTech ready	Confirmation of Occupational Competence	

Detailed End Point Assessment Plan: Rail Engineering Advanced Technician

Page 5 of 17

Crown copyright 2018 You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence.

* Due to the safety critical and complex nature of engineering training much of the assessment needs to be carried out 'on a continuous basis' to ensure that the skills, knowledge and behaviours that relate to company processes and procedures are fully embedded in the apprentice's skill set, any deficiencies or gaps in skills, knowledge and behaviours must be identified early and corrected.

** In order to apply for their completion certificate the apprentice will need to have:

- achieved the competency and a knowledge qualifications at Level 3 as specified on this Standard;
- a fully completed Employer Portfolio Based Occupational Competence Viva Interview document signed by the employer;
- received confirmation documentation from a Professional Engineering Institution or employer (where the employer has a PEI recognised programme and can facilitate internally an independent review) to confirm that they have met Engineering Technician UKSPEC requirements and
- a final sign off from the employer as being occupationally competent.

Professional Qualifications

Technical Knowledge and Occupational Competence Qualifications

The following qualification are mandatory for this Standard:

- Level 4 Rail Engineering (Competence)
- Level 4 Rail Engineering (Technical Knowledge)

Note: the qualifications are under development and the titles will be finalised once they are developed and ready.

On-programme Assessment

Knowledge and Competence Assessment

The qualifications above will be independently assessed and verified through Awarding Organisations regulated by Ofqual. These qualifications are achieved during the on programme phase of the Apprenticeship including:

- Technical knowledge based assignments including externally set exams. A grade of pass, merit or distinction will be applied to knowledge qualifications of the Apprenticeship
- Competency (Knowledge, Skills and Behaviours) will be assessed in the workplace and externally verified using a variety of methods including observation of performance and company job / work records. Apprentices will be assessed on a continuous basis with the final pieces of performance evidence accumulated typically during the last 6 months

Assessment Gateway

The employer, in discussion with the apprentice (and the training provider where appropriate) will decide if the apprentice is ready to pass the gateway to the "End Point Assessment Phase". In order to do so the apprentice must have:

- successfully completed the mandatory knowledge and competence qualifications including demonstration of the behaviours expected.
- achieved level 2 English and maths prior to taking their end-point assessment.

Page **6** of **17**

End Point Assessment – What will be assessed?

1. Portfolio of Evidence

On entry to the End Point Assessment phase each apprentice will finalise and submit a supporting Portfolio of Evidence to the employer. The evidence in this portfolio is likely to be collected in the latter part of the on programme phase, it will showcase the depth and breadth of the apprentice's skills knowledge and behaviours and provide for synoptic assessment of competence. The Portfolio of Evidence will:

- Enable the apprentice to demonstrate to the employer the specific work related tasks that they have completed in order to show how they have achieved both occupational and professional competence as set out in the Standard and Detailed Requirements Document.
- Give the apprentice the opportunity to demonstrate to the employer that they understand the company in terms of their products, processes, procedures, tools, equipment, materials, documentation and information systems by showcasing what they have done, what they have learnt and how they have applied this knowledge and skill to real work tasks including solving engineering related problems.
- Show how the apprentice has demonstrated the knowledge, skills and behaviours required to be a competent Rail Engineering Advanced Technician and to be recognised professionally competent at EngTech Level.

The portfolio will include as a minimum:

Occupational Competence: Three different examples of competent performance evidence that must include:

- Products of the apprentices work, such as items that have been produced or worked on, drawings, plans, production and/or quality records, reports, documents produced as part of a work activity, records or photographs of the completed activity, together with
- Evidence of the way the apprentice carried out the activities to meet the requirements of the Standard, such as assessor observations, supervisor/mentor references/ witness testimonies or authenticated apprentice reports of the activities undertaken.

Professional Competence (EngTech): The apprentice's Portfolio of Evidence will also contain sufficient, valid and reliable evidence which is referenced to the professional competence requirements for an Engineering Technician (EngTech). The evidence will be cross referenced to the Engineering Technicians Performance Indicators form and contain evidence where the apprentice has met the following criteria to be deemed ready to apply for EngTech:

- 1) Use engineering knowledge and understanding to apply technical and practical skills.
- 2) Contribute to the design, development, manufacture, construction, commissioning, operation or maintenance of products, equipment, processes, systems or services.
- 3) Accept and exercise personal responsibility.
- 4) Use effective communication and interpersonal skills (behaviours)
- 5) Make a personal commitment to an appropriate code of professional conduct, recognising obligations to society, the profession and the environment.

Employer assessors/mentors and/or their nominated training provider/assessor should assist the apprentice in planning, creating and recording evidence to create the portfolio to ensure opportunities to obtain all the necessary competencies (skills and knowledge and behaviours) are identified.

Page 7 of 17

How will the portfolio of evidence be assessed?

The compiled portfolio of evidence will be reviewed internally by the employer assessors/mentor to ensure it meets the required standard for occupational and professional competence.

If the review and assessment of the portfolio of evidence, in its entirety does not contain sufficient evidence to meet the standard then it will be deemed not yet ready to submit for Viva. The apprentice will be advised about the shortfalls in evidence and how this can be addressed. When agreed it does contain sufficient evidence, the portfolio will be submitted to the independent assessor undertaking the Viva.

2. Occupational Competence Validation Interview (Viva)

The Occupational Competence Validation Interview (Viva) is an interactive interview focused on all the components of the Apprenticeship Standard providing a synoptic view of the apprentice's competence and enabling the employer to validate the apprentice's occupational competence. It covers the tasks the apprentice has completed in the workplace, the standard of their work, and the behaviours they have demonstrated throughout, such as, being a team player, having a positive attitude, a strong work ethic and being a responsible employee. It is a structured and formal discussion between the apprentice and the independent assessor, drawing upon:

- the portfolio of evidence and
- records of how the apprentice has performed during the Apprenticeship.

How will the Viva be assessed?

The Viva enables the end point assessment to assess the apprentice synoptically, covering a broad range of knowledge and understanding, skills and behaviours, for example:

- the methods and techniques used to safely maintain assets relevant to their chosen pathway
- company quality processes and procedures and documentation
- understanding the practical and theoretical requirements of rail engineering components/systems
- being proactive in finding solutions to problems and identifying areas for improving the business.
- demonstrate effective interpersonal skills (behaviours)
- complying with statutory, organisational and health and safety regulations while carrying out manufacturing techniques

During the Viva the apprentice will need to demonstrate competence of the appropriate knowledge, skills and behaviours to the assessor, drawing from real work based tasks accomplished, presenting not only what they have done, but how they have done it and why. The apprentice's use of a Portfolio of Evidence is important here so that the employer can see tangible evidence of competence. It will also be an opportunity for the employer to:

- clarify any points and/or probe the apprentice on the evidence they have presented in their portfolio
- confirm and validate that the portfolio of evidence is the apprentices own work
- confirm and validate the judgements about the quality of the work the apprentice has completed

Page 8 of 17

- explore particular areas of work presented in the portfolio, how it was carried out, any problems that they encountered and how these were resolved.
- validate the apprentice's skills, knowledge and understanding of the company in terms of their products, processes, procedures, tools, equipment, materials, and documentation and information systems.

The Viva will also elicit the apprentice's depth and breadth of understanding of the professional competence requirements for an Engineering Technician (EngTech). These will be evidenced in the apprentice's Engineering Technicians Performance Indicators form.

To ensure a consistency of approach, a guidance document on how to conduct a robust Viva will be published and freely available from NSAR.

On completion of the Occupational Competence Validation Interview (Viva) the apprentice will be awarded a grade of Pass or Fail i.e. competent or not yet competent.

Who will assess the Viva?

The Viva will be assessed by an Independent Assessor who may or may not be an employee of the apprentice's employer.

i. An Independent Employer Assessor (i.e. works for the apprentice's employer)

The employer is best placed to determine whether an apprentice has the required knowledge, skills and behaviours to fulfil the designated role. They will have understanding and expertise in the area in which the apprentice works and will know what questions to ask the apprentice in order to ascertain their level of competency. This will be particularly important due to the health and safety critical nature of the sector. The Viva can be assessed by the employer when the employer employs assessors who fulfil the assessor criteria below.

- are able to demonstrate independence from the Apprentice. This means that they have not had direct involvement with the apprentice as their mentor, coach, direct trainer or direct supervisor / line manager have successfully undertaken appropriate Assessortraining
- hold a current and appropriate Assessor qualification
- have relevant rail knowledge and recent rail experience
- agree to provide management data regarding Apprenticeships and apprentices to the Employers Group or their nominated organiation on a regular basis as required in order to collate sector Apprentice intelligence
- are able to demonstrate the processes they adhere to to ensure consistency across assessments

ii. An Independent External Assessor (i.e. does not work for the apprentice's employer)

Those organisations with insufficient assessment capability to be able to demonstrate sufficient employer independence from the Apprentice (i.e. where an employer is unable to or prefers not to use an employee to act as the independent assessor who has not been directly involved in the apprentices on programme development for the Viva) may choose to use an independent external assessor.

Independent Assessor criteria:

The Independent Assessor must to be able to demonstrate that they:

Page **9** of **17**

- are able to demonstrate independence from the Apprentice. This means that they have not had direct involvement with the apprentice as their mentor, coach, direct trainer or direct supervisor / line manager have successfully undertaken appropriate Assessor training
- hold a current and appropriate Assessor qualification
- have relevant rail knowledge and recent rail experience
- are able to demonstrate the processes they adhere to to ensure consistency across assessments
- agree to provide management data regarding Apprenticeships and apprentices to the Employers Group or their nominated organiation on a regular basis as required in order to collate sector Apprentice intelligence
- are selected from the SFA's Register of Apprenticeship Assessment Organisations

The employer will be able to choose which Independent Assessor they wish to use as long as they fulfil the criteria above

In the situation where an employer representative also takes part in the interview (optional) it is the Independent Assessor who will have the final decision as to whether the apprentice has successfully completed the Viva or not.

3. Independent Viva Verification & Professional Assessment against EngTech requirements

On successful completion of the Viva i.e. achieving a pass grade the following will undergo independent review to assess the apprentice's readiness for professional recognition at EngTech Level:

- apprentices portfolio of evidence and qualification certificates
- the completed Engineering Technicians Performance Indicators form
- Occupational Competence Validation Interview (Viva) record

How will Independent Viva Verification & Professional Assessment against EngTech requirements be assessed?

A desk based review of the documents listed above will be undertaken against EngTech requirements set out in UKSPEC. Rail Engineering Signalling and Rail Engineering Telecoms Apprentices will also be assessed against the appropriate Signalling and Telecoms licences.

The review will be undertaken by the employer designated Professional Engineering Institution (PEI) <u>selected from the SFA Assessment Register</u> by either:

- A PEI Assessor who is a PEI trained assessor and professionally registered engineer or
- In the case of organisations with PEI approved apprenticeship schemes by the Employer Independent Assessor (on behalf of the PEI)

On completion of the Independent Viva Verification & Professional Assessment the PEI will notify the employer and/or their nominated training provider by letter if the apprentice has been successful or not.

The Independent Viva Verification & Professional Assessment review body must be:

Page **10** of **17**

- a Professional Engineering Institution (PEI) approved by UKSPEC to review and assess applications for professional recognition and registration and linked to Rail Engineering or
- any other body approved and authorised to award EngTech by the Engineering Council and recognised by the employer nominated PEI as to result in the process enhancing the apprentice's opportunity in securing membership of the nominated PEI. This is to ensure that all Rail Engineering Advanced Technician Apprentices will be ready to apply for EngTech and hence professional registration on completion of their apprenticeship.
- Registered on the SFA register of Assessors.

On successful completion of this End Point Assessment stage the apprentice will move to the End Point Final Sign Off stage of the End Point Assessment (see below)

The Apprenticeship assessment processes (on programme and end point assessment) have been developed as a series of stage gates to ensure that and apprentice cannot proceed to the next stage of the Apprenticeship until they have proved competence at each stage. An apprentice will not be put forward to independent professional review until they have successfully passed a Viva and been deemed occupationally competent by the employer. As such there should be no circumstance in which an apprentice could complete all necessary stages of the end point assessment and still not be deemed competent. In the unlikely situation that an apprentice is not successful at the independent professional assessment stage then:

- The apprentice will be advised by the PEI of the shortfall in evidence and given advice and guidance on the type and level of evidence that will be required to meet the required professional standard.
- The employer will similarly be advised by the PEI of the shortfall and will be expected to undertake a review to understand why the apprentice was deemed to be ready for "independent review"
- The employer will not complete the end point final sign off (see below) until the apprentice has successfully completed all stages of the end point assessment process.

End Point Final Sign Off – Employer Endorsement

Following the Independent Viva Verification & Professional Assessment, if successful, the employer will undertake the Final Sign Off / Employer Endorsement stage of the Apprenticeship by signing the Occupational Competence Validation Interview (Viva) document along with the apprentice and the employer nominated Training Provider (optional)

The Assessing Organisation will then make an application to the designated body for the Apprenticeship completion certificate

Independence

Independence will be ensured by

- Awarding Organisations awarding the mandatory qualifications (on programme)
- Independent employer or independent external assessor undertaking the Viva
- **Professional Engineering Institutions** (selected from the SFA register of Assessors) undertaking an independent review of the apprentices end point portfolio of competence and record of the Viva.

Page **11** of **17**

End Point Summary of Roles and Responsibilities

The end point assessment will be undertaken by a range of parties depending upon the nature of what is being assessed. For final judgements to be made the following is required:

Assessor	Role						
Awarding	Confirmation that require mandatory vocational qualifications have been ach						
Organisations	as part of the on-programme assessment						
Employer:	Together with Apprentice and Training Provider (as appropriate):						
Apprentices mentor and or	 make gateway decisions Decide if the Portfolio of Evidence is sufficient for Viva 						
line manager							
	Review the Professional Competence Performance Indicators Form in preparation for submission to the relevant PEI for a final independent judgement to be made.						
	Decide if collective evidence is sufficient for viva verification and professional review						
	Final judgement on the Occupational Competence of the Apprentice						
	Final Sign Off / Employer Endorsement stage of the Apprenticeship as detailed above.						
Independent Assessor	Undertake the Viva to judge occupational competence and make decision regarding the outcome of the Viva						
	Make the final decision regarding the outcome of the Viva						
PEI	The PEI will sit on the SFA register of Assessment Organisations.						
	PEI Assessors will validate the initial judgement made by the employer recorded on the EngTech Performance Indicators Form.						
	In terms of making their final independent judgement of Professional Competence this will be based on EngTech requirements as defined in the Engineering Council's UKSPEC. The independent assessor(s) must be affiliated to the PEI with which the employer initially confirmed to undertake end point assessment.						
	Independent assessor(s) from the PEI will also examine the Viva documentation, signed by the employer and used as evidence to judge Occupational Competence, thus enabling a validation of the Viva process and documentation.						
	Final judgement on the Professional Competence of the apprentice by reviewing, assessing and verifying the evidence presented.						
	The PEI review will ensure that the Apprentice has been assessed in a fair and consistent way						

Page **12** of **17**

External Quality Assurance

The Rail Employer Trailblazer group have chosen the Employer Led EQA model, and this will provided by the National Skills Academy for Rail.

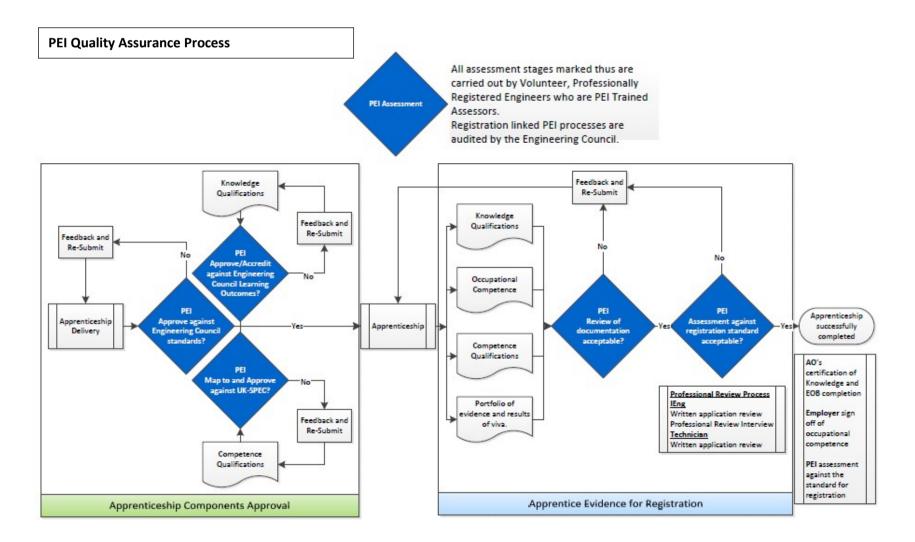
The National Skills Academy for Rail (NSAR) will carry out the function of External Quality Assurance (EQA) of the end-point assessment that is required as part of the Rail Engineering Advanced Technician Standard. NSAR will ensure the EPA is assessed in a consistent way regardless of AAO, with successful completion acting as a mark of occupational competence that is respected across the rail industry. NSAR will work with any Professional Bodies for the sector as necessary in respect of this function.

Contact Kim Millen for more details at kim.millen@nsar.co.uk

Professional Engineering Institution (PEI) Quality Assurance

All assessment stages carried out by the Professional Engineering Institutions (PEIs) are carried out by Professionally Registered Engineers who are PEI trained assessors. All PEIs work to a common set of standards for registration (as set out in UKSPEC) and are licensed by the Engineering Council to carry out all registration activity including accreditation/approval of academic programmes; Professional Review and interview of applicants to the register. PEIs are regularly monitored by Engineering Council, including annual self-assessment and full license reviews are carried out every five years. In addition, all PEIs have independent, internal review and audit procedures in place. Liaison officers from the Engineering Council are invited to attend all registration committee meeting to observe process and compliance.

Page 13 of 17





End Point Grading

The following grading will apply for the End Point Assessment:

- For the Occupational Competence Validation Interview (Viva) this will be a binary pass /fail grade
- For the Professional Competence this will be a binary pass/ fail grade i.e. A pass will mean they have met the requirements for EngTech. Therefore should they wish to apply for professional registration the apprentice will be deemed as ready to apply for EngTech.
- Overall Apprenticeship will be a binary pass /fail grade.

End Point Assessment Stage	Grade	Action as a result of grade	Grade	Action as a result of grade
1. End Point Assessment Portfolio		Is the portfolio sufficient to support a Viva, if so the Apprentice progresses to Viva		If insufficient, the Apprentice to improve the portfolio to expected Standard and resubmit to Gateway
2. Viva – assessing Occupational Competence	Pass	Apprentice's qualification certificates, EPA portfolio and record of Viva passed to Independent Assessor	Fail	Apprentice resits the Viva
3. Independent Assessment of evidence against UKSPEC EngTech requirements	Pass	Assessing Organisation notifies employer that the evidence demonstrates that the Apprentice has met the requirements of Professional Competence. Employer provides final sign off of Occupational Competence	Fail	Independent Assessor provides feedback to employer as to why the Apprentice has failed. Apprentice addresses feedback through either resitting their Viva and if required upgrading their EPA portfolio. Employer reviews processes to understand why the Apprentice was allowed through to Independent Assessment stage
Overall Apprenticeship Grade	Pass	Independent assessor applies for Apprenticeship certificate	Fail	The Apprentice is required to pass al 3 stages of the End Point Assessment in order to achieve and overall pass grade

Summary of End Point Grading Process

It is important to note the Standard has mandatory qualifications as part of "On programme assessment". The knowledge qualifications will be assessed on a multiple grade basis (e.g. pass, merit and distinction grading). The occupational competence will be a binary grade pass or fail i.e. "competent" "not yet competent".

Page **15** of **17**

Implementation

Affordability and Costs of End Point Assessment

The end point assessment process developed is both efficient and cost effective. It builds on processes in place and does not require additional assessment facilities (above those required for delivery of the apprenticeship). It is affordable for employers of all size. The costs for the delivery of the apprenticeship and hence the proportion of this that will incurred through the end point assessment has not yet been assessed. The cost for end point assessment is estimated to be in the region of 8-12% of the total apprenticeship costs and include the following:

- Occupational Competence Validation Portfolio Collation
- Occupational Competence Validation Interview (Viva)
- Cost of independent assessor
- Professional Engineering Institution Validation Costs (EngTech)
- Employer "Final sign off"
- Apprenticeship Certificate

Professional Body Recognition

The Professional Engineering Institutions (PEIs) involved in the Rail Engineering Advanced Technician Apprenticeship Standard are:

- Institution of Civil Engineers (ICE)
- Institution of Engineering and Technology (IET)
- Institution of Mechanical Engineers (IMechE)
- Institution of Railway Signalling Engineers (IRSE)
- Permanent Way Institution (PWI)

All of the PEIs have been approved by UKSPEC to review and assess applications for professional recognition and registration. **They will be registered on the SFA register of Assessors**. Discussions have taken place regarding the potential volumes and timing of apprenticeship applications for review. The institutions are aware of this and expected demands from other sectors and are working to ensure they have the resource and facilities to manage the demand throughout the year. Letters of support from Professional Engineering Institutions have been submitted with the EPA Plan.

Consistency of end point assessment

The sector has required a collaborative approach in developing the standards and the assessment plans involving the following:

- Employer representatives
- Awarding Organisations
- National Skills Academy
- Sector Skills Council
- Professional Engineering Institutions

To ensure standardisation and consistency the sector will continue to work on a collaborative basis across Rail Engineering and other related engineering sectors. There is good evidence of

Page **16** of **17**

collaboration between the AOs to minimise potential future risk in terms of capacity and infrastructure. PEIs currently involved in the assessment of EngTech applicants, which includes apprentices, are modelling the impact and gearing up to deliver the expected growth.

Numbers of Apprentices

The number of Rail Engineering Apprentices for this Apprenticeship Standard is estimated to be in the region of 200 -300 for the first year raising to between 800 – 1000 p.a. by 2020

This number is an estimate based on the DfT Apprenticeship target on 30k apprentices across the period of the current Government.

Documents Under Development

The following documents that will support the delivery of the end point assessment plan are under development and will be completed and agreed by all involved in the end point assessment prior to the apprenticeship programmes "going live" (currently targeted for September 2016):

- Standard Detail documents for each pathway
- Engineering Technician Performance Indicators Recording Form.
- Occupational Competence Validation Interview (Viva) guidance & record format

These documents are under development and will be completed in Q2 2016. Once completed they will be held by The National Skills Academy for Rail (NSAR) on behalf of the Sector employers and will be freely available to all.

Page **17** of **17**

Crown copyright 2018 You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. Visit www.nationalarchives.gov.uk/doc/open-government-licence