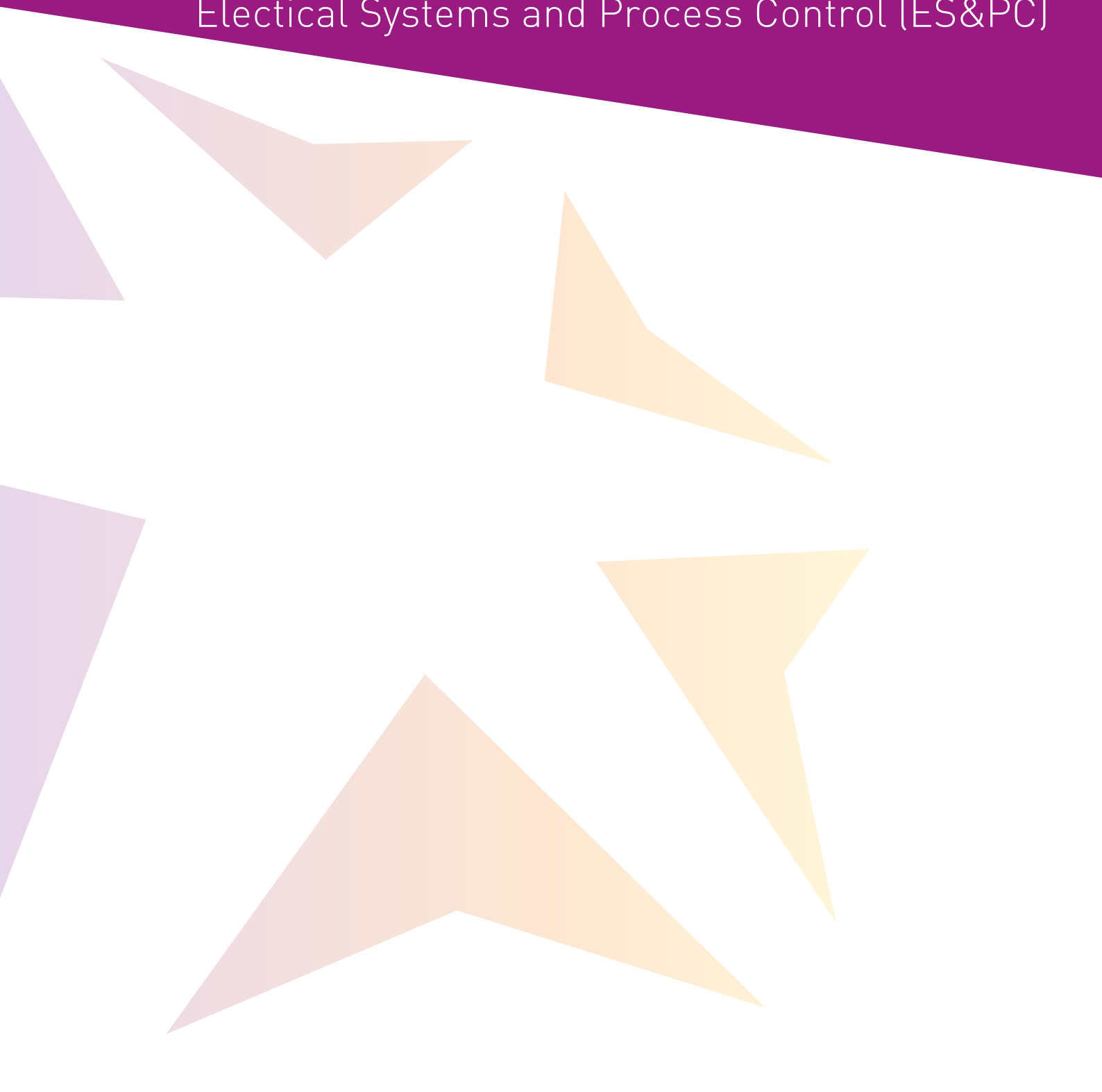




ENERGY & UTILITIES
INDEPENDENT
ASSESSMENT SERVICE

EPA Specification
Maintenance and Operations
Engineering Technician

Electrical Systems and Process Control (ES&PC)



Contents

Section 1 – Introduction

Section 2 – Mapping the Standard

Section 3 – Service Delivery and Gateway Eligibility

Section 4 – The MOET standard with Amplification and Guidance

Section 5 – Assessment

Section 5.1 – The Knowledge Assessment

Section 5.2 – The Practical Observation

Section 5.3 – The Technical Interview

Section 6 – Practice Assessments and guidance

Section 7 – Annexes

Gateway Eligibility Report

Cohort Registration Form

Practice Knowledge Assessment, with Answer Scheme

MOET Portfolio Checklist and Portfolio Index

EPA Specification Maintenance and Operations Engineering Technician – Electrical Systems and Process Control (ES&PC) technician



EPA Specification Section 1 – Introduction

Contacts

This specification has been designed to provide all the advice and guidance you need to prepare yourself and your apprentices for end-point assessment. However, if you have any further questions please contact the EUIAS Help Desk using one of the following:

Help Desk email: enquiries@euias.co.uk

Help Desk telephone: 0121 745 1310 option 2

About the Energy and Utilities Independent Assessment Service (EUIAS)

The EUIAS is an independent end-point assessment organisation (EPAO) approved by the Education and Skills Funding Agency (ESFA) (number EPA0009) to offer and carry out the end-point assessments (EPA) for the Level 3 Maintenance and Operations Engineering Technician Apprenticeship Standard (ST0154).

The EUIAS was established in 2014 and is part of Energy & Utility Skills Limited. The EUIAS delivers rigorous and robust apprenticeship end-point assessment services for the energy and utilities sector, and for technical and safety-critical sectors. In May 2016, The EUIAS became the first end-point assessment provider to have achievers on the English Trailblazer apprenticeship standards.

About end-point assessment

End-point assessment is the term given to the assessments taken by apprentices at the end of their apprenticeship, and which must be passed in order for the apprentice to be awarded a certificate of achievement. Apprentices must be trained by training providers approved by the ESFA and their end-point assessments must be carried out by an end-point assessment organisation approved by the ESFA. The assessment is designed, delivered, assessed and quality assured by the EPAO, with further external quality assurance provided by an external quality assurance (EQA) provider.

The EPA typically consists of three assessment components each of which must be passed in order to achieve an overall pass. For the MOET standard, the assessments are a knowledge test, a practical observation and a technical interview.

End-point assessment is based on two documents that have been written by an employer group – the Standard and the Assessment Plan, both of which can be found on the website of the Institute for Apprenticeships and Technical Education, www.instituteforapprenticeships.org.

The EPAO designs the assessments to cover the standard, while complying with the assessment plan.

It is important for training providers supporting apprenticeships:

- to ensure their training programmes cover all the elements required by the standard
- to have access to suitable premises, plant, machinery and equipment for the practical observation

How to Use This EPA Specification for Maintenance and Operations Engineering Technician

Welcome to the EUIAS EPA Specification for the Maintenance and Operations Engineering Technician (MOET) Apprenticeship Standard – Electrical specialism.

The EUIAS internally quality assures all end-point assessments in accordance with its IQA process and IfATE requirements. This standard is externally quality assured by Open Awards on behalf of the IfATE.

This Specification is available from the EUIAS website (www.euias.co.uk) as a complete document, and also in its individual sections to allow customers to download what they require. **Important: the web site will always contain the latest version of this document so please check back to ensure you are using the latest version.**

This Specification outlines what you need to know about the end-point assessments for this standard and provides details of the on-programme delivery requirements. It provides advice and guidance for trainers on how to prepare apprentices for the end-point assessment.

The Specification provides end-to-end details of the how the EUIAS works with customers, from initial engagement to the completion of end-point assessment.

Audience:

Section 2 will be of interest mainly to the external quality assurance body to ensure the assessment methods cover the standard.

Section 3 will be of interest mainly to administrators and those responsible for planning and scheduling end point assessments.

Section 4 will be of interest to those ensuring that apprentices have covered all the required elements of the standard during their apprenticeship, and to apprentices themselves.

Sections 5 and 6 will be of interest to those who support apprentices in preparing for the end-point assessments, and to apprentices themselves.

At a glance

Apprenticeship standard: Maintenance and Operations Engineering Technician

Assessment Plan: ST0154/AP02

Level: 3

On-programme duration: Typically 36 months

Grading: Pass/merit/distinction

End-point assessment duration: Typically 6 months

End-point assessment methods:

- Knowledge assessment
- Practical observation
- Technical interview supported by evidence portfolio/worklog

Option to use employer-nominated assessors for the practical observation (nuclear and power generation only)

Quality Assurance:

Quality assurance of the end-point assessment is designed in accordance with the Assessment Plan. The main features of EUIAS quality assurance are:

- Assessments carried out by assessors standardised by EUIAS
- Ongoing internal quality assurance
- Moderation and final grading by EUIAS

External quality assurance is provided by Open Awards on behalf of the IfATE.

In this guide, you will find:

- Detailed Amplification and Guidance of the standard and guidance on how to prepare the apprentice for gateway
- detailed information on which part of the standard is assessed by which assessment method
- a section focused on the end-point assessment method where the assessment criteria are presented in a format suitable for carrying out 'mock' assessments
- suggestions on how to prepare the apprentice for each part of the end-point assessment
- a practice test that you can use with apprentices

Is this the right standard for you?

The MOET standard has been designed by the trailblazer group of employers for technicians specifically engaged in maintenance operations in a variety of settings. A substantial part of the assessment activity is the practical observation where the apprentice carries out various tasks on complex plant or machinery and it is important that the setting provides the opportunity to cover all the requirements of the standard. It is really important that the employer and provider check that they have the right site with the right opportunities for the apprentice to cover all the requirements. The apprentice will not be assessed on the job that they do but on the requirements of the standard.

Standard overview

Maintenance & Operations Engineering Technicians covers 7 roles:

- Electrical Technician
- Mechanical Technicians
- Control & Instrumentation Technicians
- Wind Turbine Technicians
- Electrical System and Process Control Technicians (ES&PC)
- Electromechanical Technicians
- Plant Operations Technicians

This specification covers the ES&PC technician specialism.

They will maintain the safety, integrity and effective operation of plant and equipment in one or more of the following Industries that are part of or have activities that are part of the broader national infrastructure Engineering Sector:

- the electricity generating environment, which may use a range of different fuels including coal, gas, nuclear, wind and other renewable sources;
- telecommunications;
- power plants;
- oil and gas refining;
- nuclear waste reprocessing;
- processing and production of chemicals;
- pharmaceuticals;
- human and animal food;
- cosmetics;
- petrochemicals;
- sewerage;
- the exploration and exploitation of oil and gas.

ES&PC technicians will work on various types of plant and equipment commonly found throughout the Engineering Industry sectors and the Technicians can be expected to migrate through these sectors during the course of their careers. Dependent upon the sector that they are employed in there may be subtle differences in terms of the composition and application of the plant and equipment. However, the fundamental principles of operation will be the same regardless of the engineering sector.

These Technicians will undertake installation, testing, servicing, removal, replacement, maintenance and repair of a range of equipment, sometimes complex, as part of planned preventative and reactive maintenance programmes. They may also undertake decommissioning activities when plant is being removed from service. They need to apply a range of conventional skills and knowledge to undertake engineering activities on a selection of electromechanical and process control plant, systems and equipment.

They will be responsible for the quality of their own work, possibly others' and ensuring the work is completed safely, meets stakeholder quality, time and budget requirements, whilst maintaining the efficient running of plant and equipment.

On-programme requirements

The employer/training provider should ensure that they have developed and can deliver a programme of training and learning that will enable the apprentice to develop the knowledge, skills and behaviours that will be assessed as part of this standard. The programme must cover all the knowledge, skills and behaviours of the standard.

The planning, organisation and delivery of the on-programme element of the apprenticeship is the responsibility of the employer/ training provider and it is their responsibility to ensure they are compliant with all applicable regulations.

It is recommended that throughout the period of learning and development, and at least monthly the apprentice should meet with the on- programme assessor to record their progress against the standard. At these reviews, the employer should:

- set learning and development goals
- track the apprentice's progress
- coordinate 20% of the apprentice's time being spent in off-the-job training

Once the apprentice is deemed competent, the relevant section(s) of the standard should be signed off by the on-programme assessor and employer.

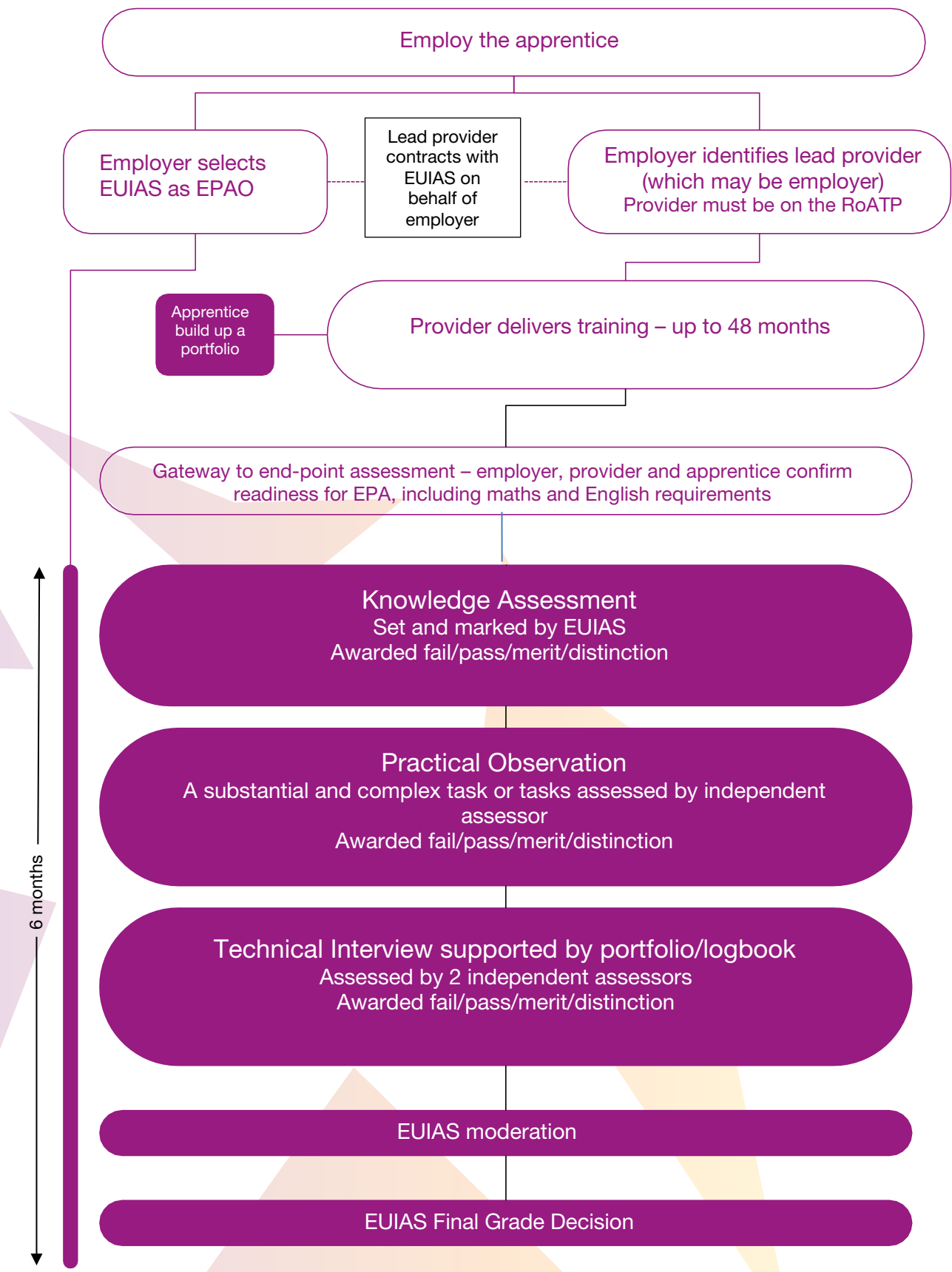
Readiness for end-point assessment

For an apprentice to be ready for the end-point assessments:

- the Level 2 English and maths components of the apprenticeship must be successfully completed by the apprentice; the EUIAS requires copies of the certificates before end-point assessment can take place
- the employer, training provider and apprentice must be confident that the apprentice has developed all the knowledge, skills and behaviours defined in the apprenticeship standard. To ensure this, the apprentice must attend a formal meeting with their employer to complete the Gateway Eligibility Report
- the apprentice and the employer must engage with the Service Delivery team at EUIAS to agree a schedule for each assessment activity to ensure all components can be completed within a 6-month assessment window. Further information about the gateway process is covered later in this guide
- the evidence portfolio must be completed and available for review at the Technical Interview
- the Practical Observation approval form must be completed and submitted to EUIAS

Order of end-point assessments

The Knowledge Assessment and Practical Observation can be taken in any order. The Technical Interview assessment component must be the final component.



Overview of the EPA process – EPA-related activities in purple