Level 5 Nuclear Technician

End Point Assessment (EPA) Specification

Why choose NSAN as your End Point Assessment Organisation (EPAO)?

NSAN is led by nuclear sector employers, from both civil and defence, who live and breathe the skills needed in the whole of the UK nuclear industry, and with client engagement at the heart of everything we do.

As a trusted and respected organisation leading skills delivery in the nuclear industry, we harmonise internal staff expertise with standard-specific subject matter experts from across the nuclear industry to develop and deliver our EPA.

As an approved EPAO for the nuclear industry since 2017, we have the expertise to ensure that you will be fully supported with navigating the EPA process and can be assured your apprentices are being tested against the latest industry standards.

What's involved in the Nuclear Technician EPA?

There are 2 stages to the Nuclear Technician EPA:

Stage 1 – Written technical report
A written technical report on work the apprentice has carried out, demonstrating the apprentice's ability to integrate the broad range of knowledge, skills and behaviours set out in the apprenticeship standard. The apprentice will submit the report prior to structured interview.

Stage 2 – Structured interview
An interview, consisting of:

- A presentation by the apprentice on their written technical report.
- A structured discussion supported by the written technical report.

How long does the Nuclear Technician EPA take?

The Level 5 Nuclear Technician apprenticeship will typically take 3.5 years to complete, with the EPA typically being taken within the last 6 months; however, the duration of the EPA will depend on availability for assessment dates and whether or not resits are required.

What criteria does the Nuclear Technician EPA test the apprentice on and how will they be assessed?

The standard is broken down into three main areas: knowledge, skills and behaviours (KSBs). Within the KSBs, there are 28 mandatory competencies – 10 Knowledge-based, 7 Skills-based, 11 Behaviours-based.

Ref	**Knowledge Competencies** A Nuclear Technician will be able to understand and apply:	Report	Interview
K1.	The concepts, principles and theories of engineering science relevant to the interdisciplinary fields of nuclear technology.	✓	
K2.	Relevant stakeholders, commercial and business acumen, business improvement process, project and business management techniques relevant to the nuclear industry.	✓	✓
K3.	Science or engineering discipline knowledge to support the development of operation, maintenance and progression of technologies for example in Decommissioning (e.g. remote handling and robotics), Waste Management, Reprocessing, and Nuclear Power Generation.	✓	✓
K4.	How to engage with and support the successful outcome of nuclear projects.	✓	
K5.	How to analyse and apply the results of research and information gathering to evaluate and to propose solutions to a particular nuclear technology application.	✓	
K6.	The regulatory requirements for both national and international and its relevance to the job role.		✓
K7.	The nuclear industry (past, present and future) and the business, political and community environment in which the company operates including personal role within the organisation, ethical practice and codes of conduct.		✓
K8.	How to implement methods of determining the root cause of problems and demonstrating knowledge of learning from experience (LFE) processes.	✓	
K9.	The technology, safety, environmental and economics for a variety of nuclear scenarios for example the nuclear fuels, the nuclear fuel cycle.	✓	✓
K10.	How the standards for nuclear professional practice as required by the industry and professional body institutions are applied.	✓	

Ref	**Skills Competencies** A Nuclear Technician will be able to:	Report	Interview
S1.	Work competently and safely in a technical nuclear environment, understand and promote personal responsibility for Health, Safety, Radiation Protection, Environmental Protection, Quality, Security, Safeguards and principles of Risk Management.	✓	✓
S2.	Utilise mathematical, engineering and scientific tools to provide suitable solutions to nuclear applications.	✓	✓
S3.	Accurately observe, record and draw conclusions from data and experimental evidence and presentation of findings under supervision.	✓	
S4.	Develop and write technical reports that meet business requirements including the optimisation and continuous improvement of processes and services.	✓	
S5.	Utilise Information Technology (IT) for performing and supporting the business processes including, communications, work co-ordination, task analysis and problem solving.	✓	
S6.	Promote and actively support the application of quality standards relevant to the workplace and organisation.	✓	✓
S7.	Demonstrate decision making ability commensurate with agreed levels of responsibility.	✓	✓

Ref	**Behaviours** A Nuclear Technician will be able to demonstrate the following behaviours:	Report	Interview
B1.	Communication: Communicate effectively and appropriately at all levels within the organisation, using a broad range of communication skills (including written, oral, presentation and active listening).		✓
B2.	Integrity: Demonstrate reliability, integrity and respect for confidentiality on work related and personal matters.	✓	✓
B3.	Team Working: Demonstrate ability to work effectively within a wide, multi-disciplinary team.	✓	✓
B4.	Personal Responsibility: Understand the impact of work on others, especially where related to diversity and equality.		✓
B5.	Planning & Quality: Demonstrate ability to work to a plan and deliver quality work to meet an agreed schedule.	✓	✓
B6.	Supportive Attitude: Demonstrate a supportive attitude to change and respond positively to change management processes.		✓
B7.	Personal Development: Take responsibility for personal development, demonstrating commitment to learning and self-improvement and be open to feedback.		✓
B8.	Nuclear Safety: Demonstrate a strong commitment to personal safety behaviours and understanding of the consequences as set out in the nuclear industry requirements.		✓
B9.	Challenge: Take responsibility to actively challenge unsafe behaviours and conditions in the workplace to help reinforce nuclear, radiological and conventional safety over competing goals to ensure the protection of people and the environment.		✓
B10.	Compliance & Security: Demonstrate compliance by following rules, procedures and principles to ensure work completed is fit for purpose and pay attention to detail and carry out error checks throughout work activities.	✓	✓
B11.	Industry Advocate: Be an enthusiastic advocate for the nuclear industry with the ability to represent this industry to a variety of audiences.		✓

What does the apprentice need to do to prepare for the Nuclear Technician EPA?

It is not a requirement of the EPA, but it is considered best practice that, during their training, apprentices maintain a portfolio of evidence against each of the competencies covered during the apprenticeship. This process allows the apprentice to continually reflect on their learning and provides sufficient evidence that consistently demonstrates their knowledge, skills and behaviours at Level 5 and confirms their readiness to begin the EPA.

Whilst not mandatory, it is also recommended that the apprentice completes a level 5 technical qualification, or equivalent, during on programme assessment so they can fully demonstrate they are applying the knowledge, skills and behaviours at the level required for the Standard and hence readiness for EPA.

Before taking the EPA, the apprentice will also need to meet the requirements of the Gateway.

What are the requirements of the Nuclear Technician Gateway?

Prior to the EPA the employer and provider will confirm that the apprentice has collated sufficient evidence that consistently demonstrates their knowledge, skills and behaviours at Level 5, as defined in the Standard, has satisfactorily met the on-programme training requirements and has achieved mandatory gateway requirements for EPA.

The mandatory requirements are:

- a declaration of readiness, signed by the apprentice, employer and training provider

If the apprentice was aged under 19 on the start date of their apprenticeship, they will **also** need to provide:

- evidence of achievement of Level 2 (or equivalent) maths and English

How is the Nuclear Technician EPA graded?

A grading exemption has been granted for the Nuclear Technician Apprenticeship due to the link to professional registration. This means that the EPA will be graded as a Pass or Fail. No other grades are available.

A pass will mean the apprentice has also demonstrated the ability to meet competences described in the Engineering Council's or Science Council's UK-SPEC criteria for EngTech or RSciTech. This, however, does not mean that the successful apprentices will be awarded these titles as part of this EPA.

How much does the Nuclear Technician EPA cost?

£3200. This is a fixed cost, which covers the full EPA process including planning, guidance, development, delivery, assessor expenses and certification.

Fees are payable at three points of the EPA.

- 10% non-refundable deposit at contract agreement
- 70% at gateway
- 20% on completion of the first attempt at the final method of assessment

Progression route – where can it lead?

Successful apprentices can progress towards the achievement of Engineering Technician (EngTech) or Registered Science Technician (RSciTech) professional registration with the relevant Professional Institution (PI). EngTech and RSciTech are internationally recognised benchmarks of competence and will allow the apprentices to continue their professional development with mentoring and support provided by the institutions and their employers.