ST0291/V1.1

DRAFT END-POINT ASSESSMENT PLAN FOR THE NUCLEAR OPERATIVE APPRENTICESHIP

APPRENTICESHIP REFERENCE NUMBER	LEVEL OF THIS END-POINT ASSESSMENT (EPA)	INTEGRATION
ST0291	2	None

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Introduction and overview

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This document explains the requirements for end-point assessment (EPA) for the nuclear operative apprenticeship. End-point assessment organisations (EPAOs) must follow this when designing and delivering the EPA.
Nuclear operative apprentices, their employers and training providers should read this document.
A full-time nuclear operative apprentice typically spends 24 months on-programme. The apprentice must spend at least 12 months on-programme and complete the required amount of off-the-job training in line with the apprenticeship funding rules.
The EPA should be completed within an EPA period lasting typically 3 months.
The apprentice must complete their training and meet the gateway requirements before starting their EPA. The EPA will assess occupational competence.

An approved EPAO must conduct the EPA for this apprenticeship. Employers must work with the training provider to select an approved EPAO from the apprenticeship providers and assessment register (APAR).

This EPA has 2 assessment methods.
The grades available for each assessment method are below.

Assessment method 1 - practical assessment with questions:

- fail
- pass

Assessment method 2 - interview underpinned by a portfolio of evidence:

- fail
- pass
- distinction

The result from each assessment method is combined to decide the overall apprenticeship grade. The following grades are available for the apprenticeship:

- fail
- pass
- distinction

EPA summary table

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On-programme - typically 24 months	The apprentice must: • complete training to develop the knowledge, skills and behaviours (KSBs) outlined in this apprenticeship's standard • complete training towards English and mathematics qualifications in line with the apprenticeship funding rules • compile a portfolio of evidence
End-point assessment gateway	The apprentice's employer must be content that the apprentice is occupationally competent. The apprentice must: • confirm they are ready to take the EPA • have achieved English and mathematics qualifications in line with the apprenticeship funding rules For the interview underpinned by a portfolio of evidence, the apprentice must submit a portfolio of evidence. Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.
End-point assessment - typically 3 months	**The grades available for each assessment method are below** Practical assessment with questions: • fail • pass Interview underpinned by a portfolio of evidence: • fail • pass • distinction **Overall EPA and apprenticeship can be graded:** ○ fail ○ pass ○ distinction
Professional recognition	This apprenticeship aligns with: • Nuclear Institute for Associate
Re-sits and re-takes	• re-take and re-sit grade cap: pass • re-sit timeframe: typically 3 months • re-take timeframe: typically 6 months

Duration of end-point assessment period

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The EPA is taken in the EPA period. The EPA period starts when the EPAO confirms the gateway requirements have been met and is typically 3 months.
The EPAO should confirm the gateway requirements have been met and start the EPA as quickly as possible.

EPA gateway

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The apprentice's employer must be content that the apprentice is occupationally competent. That is, they are deemed to be working at or above the level set out in the apprenticeship standard and ready to undertake the EPA. The employer may take advice from the apprentice's training provider, but the employer must make the decision. The apprentice will then enter the gateway.
The apprentice must meet the gateway requirements before starting their EPA.

They must:

- confirm they are ready to take the EPA
- have achieved English and mathematics qualifications in line with the apprenticeship funding rules
- submit a portfolio of evidence for the interview underpinned by a portfolio of evidence

Portfolio of evidence requirements:
The apprentice must compile a portfolio of evidence during the on-programme period of the apprenticeship. It should only contain evidence related to the KSBs that will be assessed by the interview. It will typically contain 10 discrete pieces of evidence. Evidence must be mapped against the KSBs. Evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested.
Evidence sources may include:

- workplace documentation and records, for example:
- workplace policies and procedures
- witness statements
- annotated photographs
- video clips with a maximum total duration of 10 minutes; the apprentice must be in view and identifiable

This is not a definitive list; other evidence sources can be included.
The portfolio of evidence should not include reflective accounts or any methods of self-assessment. Any employer contributions should focus on direct observation of performance, for example, witness statements, rather than opinions. The evidence provided should be valid and attributable to the apprentice; the portfolio of evidence should contain a statement from the employer and apprentice confirming this.
The EPAO should not assess the portfolio of evidence directly as it underpins the interview. The independent assessor should review the portfolio of evidence to prepare questions for the interview. They are not required to provide feedback after this review.
Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.

Order of assessment methods

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The assessment methods can be delivered in any order.

The result of one assessment method does not need to be known before starting the next.

Practical assessment with questions

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Overview

In a practical assessment with questions, an independent assessor observes the apprentice completing a task or series of tasks set by the EPAO. The EPAO decides in which of the simulated environments it takes place. The assessment environment must closely relate to the apprentice's natural working environment. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

- this is a practical role, which can be demonstrated through completing tasks
- it allows for consistency of opportunity for apprentices to demonstrate their competence against the mapped KSBs
- it assesses KSBs holistically and objectively
- it is a valid assessment because it involves direct testing under controlled conditions

Delivery

The practical assessment with questions must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.
An independent assessor must conduct and assess the practical assessment with questions.
The independent assessor must only observe one apprentice at a time to ensure quality and rigour. They must be as unobtrusive as possible.
The EPAO must give an apprentice 2 weeks' notice of the practical assessment with questions.
The practical assessment with questions must take 2 hours.
The independent assessor can increase the time of the practical assessment with questions by up to 10%. This time is to allow the apprentice to complete a task or respond to a question if necessary.
The practical assessment with questions cannot be split, other than for comfort breaks or to allow apprentices to move from one location to another. Where breaks occur, they will not count towards the total EPA time.
The EPAO must manage invigilation of the apprentice during the assessment, to maintain security of the EPA, in line with their malpractice policy. This includes breaks and moving between locations.

The independent assessor must explain to the apprentice the format and timescales of the practical assessment with questions before it starts. This does not count towards the assessment time.
The independent assessor must observe the following during the practical assessment:

- compliance with health and safety and industry regulations, guidance and procedures for the nuclear environment
- following safety management systems

- setting up and maintaining alpha, gamma, or beta work areas
- performing minor maintenance of plant equipment
- monitoring and recording plant equipment performance indicators
- performing and recording sampling operations on plant equipment
- using technical documentation

These activities provide the apprentice with the opportunity to demonstrate the KSBs mapped to this assessment method.
The independent assessor must ask questions.
The purpose of the questions is:

- to seek clarification where required
- to assess the level of competence against the grading descriptors

Questioning must occur during the practical assessment. The time for questioning is included in the overall assessment time.
The independent assessor must ask at least 3 questions during the practical assessment. To remain as unobtrusive as possible, the independent assessor should ask questions during natural breaks in work rather than disrupting the apprentice's flow. The independent assessor must use the questions from their EPAO's question bank or create their own questions in line with the EPAO's training.
The independent assessor can ask follow-up questions to clarify answers given by the apprentice. These questions are in addition to the above set number of questions for the practical assessment with questions.
The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.
The independent assessor must make the grading decision. The independent assessor must assess the practical assessment and responses to questions holistically when deciding the grade.

The independent assessor must keep accurate records of the assessment. They must record:

- the KSBs observed
- the apprentice's answers to questions
- KSBs demonstrated in answers to questions
- the grade achieved

Assessment location

The practical assessment with questions must take place in a simulated environment selected by the EPAO for example, the EPAO's premises, a training provider's premises, a training facility in the employer's premises, a test centre or a similar simulated environment. This simulated environment must relate to the apprentice's natural work environment. Equipment and resources needed for the practical assessment with

questions must be provided by the EPAO, who can liaise with the employer to provide these.

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.
The EPAO must ensure that the apprentice has a different set of tasks and questions in the case of re-sits and retakes, to minimise predictability.
The EPAO must produce the following materials to support the practical assessment with questions:

- independent assessor assessment materials which include:
    - training materials
    - administration materials
    - moderation and standardisation materials
    - guidance materials
    - grading guidance
    - question bank
- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Interview underpinned by a portfolio of evidence

Edit interview underpinned by a portfolio of evidence form

Overview

In the interview, an independent assessor asks the apprentice questions. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method. The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence.

Rationale

This assessment method is being used because:

- it assesses KSBs holistically and objectively
- it allows for the assessment of KSBs that do not occur on a predictable or regular basis
- it allows for assessment of responses where there are a range of potential answers
- it can be conducted remotely, potentially reducing cost

Delivery

The interview must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade.
An independent assessor must conduct and assess the interview.
The purpose is to assess the apprentice's competence against the following themes:

- health and safety
- site security clearance
- role of the nuclear operative and continual professional development (CPD)
- emergency response
- nuclear plant and equipment operations and plant life cycles
- problem solving
- environmental, sustainability and nuclear waste management
- team working
- equity, diversity, and inclusion
- documentation and use of digital information technology

The EPAO must give an apprentice 2 weeks' notice of the interview.
The independent assessor must have at least 2 weeks to review the supporting documentation.
The apprentice must have access to their portfolio of evidence during the interview.
The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence however, the portfolio of evidence is not directly assessed.
The interview must last for 70 minutes. The independent assessor can increase the time of the interview by up to 10%. This time is to allow the apprentice to respond to a question if necessary.
The independent assessor must ask at least 8 questions. The independent assessor must use the questions from the EPAO's question bank. Follow-up questions are allowed where clarification is required.
The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.
The independent assessor must make the grading decision.
The independent assessor must keep accurate records of the assessment. They must record:

- the apprentice's answers to questions
- the KSBs demonstrated in answers to questions
- the grade achieved

Assessment location

The interview must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises.

The interview can be conducted by video conferencing. The EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided. The interview should take place in a quiet room, free from distractions and influence.

Question and resource development

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO must maintain the security and confidentiality of EPA materials when consulting with employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must ensure that the apprentice has a different set of questions in the case of re-sits or re-takes.

The EPAO must produce the following materials to support the interview underpinned by a portfolio of evidence:

- independent assessor assessment materials which include:
    - training materials
    - administration materials
    - moderation and standardisation materials
    - guidance materials
    - grading guidance
    - question bank
- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation and moderation.

Grading

Edit add grade descriptor formEdit mapping of ksbs to grade themes formEdit available grades form

Practical assessment with questions

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS
Health and safety, nuclear and radiological safety K3 K4 K5 K8 S1 S2 S3 S4 S5 B1 B3	Prioritises health and safety and works in compliance with, health and safety and industry regulations, guidance and procedures. (K3, K4, S1, B1) Selects and uses personal protective equipment (PPE) for nuclear operational tasks, in line with organisational and regulatory guidance. (S2)

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS
	Follows safety management systems in response to changes in radiological conditions in line with organisational guidance. (K5, S3, S5, B3) Sets ups and maintains alpha, gamma or beta working areas in line with organisational procedures and regulatory guidance. (K8, S4)
Plant equipment routine maintenance, monitoring, and radiological protection measurement K10 K13 K17 S8 S11 S14 B2	Selects and uses radiation monitoring instruments and undertakes the measurement, referencing levels of radiation in line with task requirements. (K10, S8) Taking responsibility for the work, performs minor maintenance on plant equipment, and monitors and records plant indications or condition data, in line with task requirements. (K13, K17, S11, S14, B2)
Sampling operations K18 S17	Performs sampling operations of nuclear systems in line with task requirements. (K18, S17)
Technical documentation and work instructions K12 S10	Interprets and uses technical documentation in line with task requirements. (K12, S10)

Interview underpinned by a portfolio of evidence

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Health and safety K7 K26 S7 S23 B5	Describes how they apply human factors and human performance	Explains how compliance with human factors and human performance

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	principles in line with nuclear safety culture within their role. (K7, S7, B5) Describes how they operate mechanical lifting equipment for the movement of loads in line with task requirements, organisational procedures and regulatory guidance. (K26, S23)	principles preserves nuclear safety culture for themselves and others. (K7, S7)
Site security clearances K2	Explains the different levels of security clearances required, to access the nuclear facility for personnel when undertaking work in different areas of the nuclear facility. (K2)	None.

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Role of the nuclear operative and continual professional development (CPD) K1 S30 B7	Explains their role in the nuclear industry function and the reporting channels they use when tasks go beyond their limits of autonomy. (K1) Describes how they have sought, carried out and recorded learning and development activities to show continual personal and professional development in their role. (S30, B7)	None.
Emergency response K11 S9	Describes the actions taken to ensure compliance with emergency response plans, in the event of nuclear incidents. (K11, S9)	Explains the importance of having emergency response contingency plans to support the actions required to respond and recover from

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
		nuclear incidents. (K11, S9)
Nuclear plant equipment operations, plant life cycles K9 K14 K15 K16 K21 K23 S12 S13 S15 S16 S19 S21	Describes how they apply sequential start up and shut down procedures to plant equipment and carry out surveillance during operation, to ensure safety critical operations, in line with organisational procedures, manufacturer's instructions and regulatory guidance. (K15, S13, S15) Describes how they operate standard or purpose built equipment, which is relevant to their role, in line with organisational procedures, manufacturer's instructions and	None.

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	regulatory guidance. (K21, S21) Describes how they identify abnormalities and carry out corrective actions, including the dismantling, configuration, isolation, and reinstatement of plant equipment, in line with limits of autonomy, organisational procedures and manufacturer's instructions. (K14, K16, K23, S12, S16, S19) Describes the types of plant operations and life cycles for nuclear facilities. (K9)	
Problem solving K25 S22	Describes how they apply problem solving techniques to	Explains the importance of problem solving in terms of

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	identify and solve common role related problems in line with organisational procedures. (K25, S22)	impacts on others or on the business. (K25, S22)
Environment, sustainability, and nuclear waste management K6 K19 K20 K22 K24 S6 S18 S20	Describes how they comply with environmental and sustainability regulations and procedures. Describes how they consider the environment, pollution, waste, and recycling, and the application of control measures when carrying out tasks in line with their job role and organisational guidance. (K6, S6) Describes how they apply nuclear waste management,	Explains how their environmental and sustainability considerations, reduces the impact on the local environment. (K6, S6)

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	classification and categorisation solutions, including minimisation, packaging, and decontamination in the removal, transfer, storage and disposal of hazardous materials and radioactive waste in line with organisational procedures and regulatory requirements (K19, K20, K22, K24, S18, S20)	
Team working and verbal communication K29 K31 S25 S28 B4	Describes how they apply team working principles to meet their team's work goal. (K29, S25, B4) Describes how they commuicate with others using verbal	Explains how their team focus supports teams to meet their goals. (K29, S25)

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	techniques in a way that is suitable for the context and supports task completion. (K31, S28)	
Equity, diversity and inclusion K30 S26 B6	Describes how they follow equity, diversity and inclusion rules, contributing to an inclusive workplace, including being respectful of others and the impact this has on their work. (K30, S26, B6)	Explains the benefits to themselves and the organisation of supporting a diverse and inclusive culture. (K30, S26)
Documentation and use of digital information technology K27 K28 K32 S24 S27 S29	Describes how they record and document daily operations and work progress, in line with organisational procedures. (K27, S27) Describes how they communicate with colleagues and managers using written	None.

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	techniques. (K32, S29) Describes how they use information technology and digital systems to comply with GDPR and cyber security when carrying out work tasks. (K28, S24)	

Overall EPA grading

Edit overall epa grading form

Performance in the EPA determines the overall grade of:

- fail
- pass
- distinction

An independent assessor must individually grade the practical assessment with questions and interview underpinned by a portfolio of evidence in line with this EPA plan.
The EPAO must combine the individual assessment method grades to determine the overall EPA grade.

If the apprentice fails one assessment method or more, they will be awarded an overall fail.

To achieve an overall pass, the apprentice must achieve at least a pass in all the assessment methods. To achieve an overall EPA distinction the apprentice must achieve a pass in the practical assessment with questions and a distinction in the interview underpinned by a portfolio of evidence.
Grades from individual assessment methods must be combined in the following way to determine the grade of the EPA overall.

PRACTICAL ASSESSMENT WITH QUESTIONS	INTERVIEW UNDERPINNED BY A PORTFOLIO OF EVIDENCE	OVERALL GRADING
Fail	Any grade	Fail
Any grade	Fail	Fail
Pass	Pass	Pass
Pass	Distinction	Distinction

Re-sits and re-takes

Edit re-sits and re-takes form

If the apprentice fails one assessment method or more, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-take is appropriate. A re-sit does not need further learning, whereas a re-take does. The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and the EPAO should agree the timescale for a re-sit or re-take. A re-sit is typically taken within 3 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 6 months of the EPA outcome notification.
Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

Re-sits and re-takes are not offered to an apprentice wishing to move from pass to a higher grade.

The apprentice will get a maximum EPA grade of pass if they need to re-sit or re-take one or more assessment methods, unless the EPAO determines there are exceptional circumstances.

Roles and responsibilities

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ROLES	RESPONSIBILITIES
Apprentice	As a minimum, the apprentice should: • complete on-programme training to meet the KSBs as outlined in the apprenticeship standard for a minimum of 12 months • complete the required amount of off-the-job training specified by the apprenticeship funding rules and as arranged by the employer and training provider • understand the purpose and importance of EPA • prepare for and undertake the EPA including meeting all gateway requirements
Employer	As a minimum, the apprentice's employer must:

ROLES	RESPONSIBILITIES
	• select the training provider • work with the training provider to select the EPAO • work with the training provider, where applicable, to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs • arrange and support off-the-job training to be undertaken by the apprentice • decide when the apprentice is working at or above the apprenticeship standard and is ready for EPA • ensure the apprentice is prepared for the EPA • ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan • confirm arrangements with the EPAO for the EPA in a timely manner, including who, when, where • provide the EPAO with access to any employer-specific documentation as required for example, company policies • ensure that the EPA is scheduled with the EPAO for a date and time which allows appropriate opportunity for the apprentice to meet the KSBs • ensure the apprentice is given sufficient time away from regular duties to prepare for, and complete the EPA • ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place • ensure the apprentice has access to the resources used to fulfil their role and carry out the EPA for workplace based assessments • remain independent from the delivery of the EPA • pass the certificate to the apprentice upon receipt
EPAO	As a minimum, the EPAO must: • conform to the requirements of this EPA plan and deliver its requirements in a timely manner • conform to the requirements of the apprenticeship provider and assessment register • conform to the requirements of the external quality assurance provider (EQAP) • understand the apprenticeship including the occupational standard and EPA plan

ROLES	RESPONSIBILITIES
	• make all necessary contractual arrangements including agreeing the price of the EPA • develop and produce assessment materials including specifications and marking materials, for example mark schemes, practice materials, training material • maintain and apply a policy for the declaration and management of conflict of interests and independence. This must ensure, as a minimum, there is no personal benefit or detriment for those delivering the EPA or from the result of an assessment. It must cover: o apprentices o employers o independent assessors o any other roles involved in delivery or grading of the EPA • have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity for external quality assurance (EQA) purposes • appoint independent, competent, and suitably qualified assessors in line with the requirements of this EPA plan • appoint administrators, invigilators and any other roles where required to facilitate the EPA • deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the delivery or grading of the EPA as specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions where required • conduct standardisation with all their independent assessors before allowing them to deliver an EPA, when the EPA is updated, and at least once a year • conduct moderation across all of their independent assessors' decisions once EPAs have started according to a sampling plan, with associated risk rating of independent assessors • monitor the performance of all their independent assessors and provide additional training where necessary • develop and provide assessment recording documentation to ensure a clear and auditable process

ROLES	RESPONSIBILITIES
	is in place for providing assessment decisions and feedback to all relevant stakeholders • use language in the development and delivery of the EPA that is appropriate to the level of the apprenticeship • arrange for the EPA to take place in a timely manner, in consultation with the employer • provide information, advice, and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA • confirm the gateway requirements have been met before they start the EPA for an apprentice • arrange a suitable venue for the EPA • maintain the security of the EPA including, but not limited to, verifying the identity of the apprentice, invigilation and security of materials • where the EPA plan permits assessment away from the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary • confirm the overall grade awarded • maintain and apply a policy for conducting appeals
Independent assessor	As a minimum, an independent assessor must: • be independent, with no conflict of interest with the apprentice, their employer or training provider, specifically, they must not receive a personal benefit or detriment from the result of the assessment • have, maintain and be able to evidence up-to-date knowledge and expertise of the occupation • have the competence to assess the EPA and meet the requirements of the IQA section of this EPA plan • understand the apprenticeship's occupational standard and EPA plan • attend induction and standardisation events before they conduct an EPA for the first time, when the EPA is updated, and at least once a year • use language in the delivery of the EPA that is appropriate to the level of the apprenticeship • work with other personnel, where used, in the preparation and delivery of assessment methods

ROLES	RESPONSIBILITIES
	• conduct the EPA to assess the apprentice against the KSBs and in line with the EPA plan • make final grading decisions in line with this EPA plan • record and report assessment outcome decisions • comply with the IQA requirements of the EPAO • comply with external quality assurance (EQA) requirements
Training provider	As a minimum, the training provider must: • conform to the requirements of the apprenticeship provider and assessment register • ensure procedures are in place to mitigate against any conflict of interest • work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the KSBs as outlined in the occupational standard • deliver training to the apprentice as outlined in their apprenticeship agreement • monitor the apprentice's progress during any training provider led on-programme learning • ensure the apprentice is prepared for the EPA • work with the employer to select the EPAO • advise the employer, upon request, on the apprentice's readiness for EPA • ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan • remain independent from the delivery of the EPA

Reasonable adjustments

Edit reasonable adjustments form

The EPAO must have reasonable adjustments arrangements for the EPA.

This should include:

- how an apprentice qualifies for a reasonable adjustment
- what reasonable adjustments may be made

Adjustments must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Special considerations
The EPAO must have special consideration arrangements for the EPA.
This should include:

- how an apprentice qualifies for a special consideration
- what special considerations will be given

Special considerations must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Internal quality assurance

Edit internal quality assurance form

Internal quality assurance refers to the strategies, policies and procedures that an EPAO must have in place to ensure valid, consistent and reliable EPA decisions.

EPAOs for this EPA must adhere to the requirements within the roles and responsibilities table.

They must also appoint independent assessors who:

- have recent relevant experience of the occupation or sector to at least occupational level 3 gained in the last 3 years or significant experience of the occupation or sector

Value for money

Edit value for money form

Affordability of the EPA will be aided by using at least some of the following:

- utilising digital remote platforms to conduct applicable assessment methods
- assessing multiple apprentices simultaneously where the assessment method permits this
- using the employer's premises
- conducting assessment methods on the same day

Professional recognition

Edit professional recognition form

This apprenticeship aligns with:

- Nuclear Institute for Associate

Mapping of KSBs to assessment methods

Edit mapping of ksbs to assessment methods form

KNOWLEDGE	ASSESSMENT METHODS
K1 The nuclear industry function and role of nuclear operatives. Limits of autonomy and reporting channels.	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
K2 Security clearances and levels of personnel on nuclear licensed sites: basic clearance (BC), security clearance (SC) and developed vetting (DV) enhanced clearance.	Interview underpinned by a portfolio of evidence
K3 Regulatory and legislative guidance: Nuclear Installations Act (NIA); Ionising Radiation Regulations (IRR); Radiation (Emergency Preparedness and Public Information) Regulations (REPPIR); International Commission of Radiological Protection (ICRP); Approved Code of Practice (ACOP).	Practical assessment with questions
K4 Health and safety of those working on nuclear licensed sites: nuclear safety, radiological safety, radiation and contamination, confined spaces, Health and safety at work act. Control of Substances Hazardous to Health (COSHH). Manual handling. Personal Protective Equipment (PPE). Pressurised suits. Respiratory Protection Equipment (RPE). Situational awareness. Slips, trips and falls. Safety equipment: guards, signage, fire extinguishers. Safe systems of working. Working at height.	Practical assessment with questions
K5 Awareness of safety management systems: standard operating procedures (SOPs) and risk assessments. Principles of As Low As Reasonably Practicable (ALARP). Best Available Technique (BAT).	Practical assessment with questions
K6 Environment and sustainability regulations and guidance. Types of pollution and control measures in the nuclear sector, including spills and waste. Waste reduction and waste streams. Recycling and reuse. Sustainable use of equipment and materials.	Interview underpinned by a portfolio of evidence
K7 Awareness of how human performance and human factors affect nuclear safety culture.	Interview underpinned by a portfolio of evidence
K8 Radiation types: non-ionising and ionising radiation, alpha, beta, gamma, x-ray, and neutron. Atomic structure, criticality, fusion, and fission.	Practical assessment with questions
K9 Nuclear plant operations: nuclear fuel manufacture and storage, reprocessing of nuclear fuel, waste processing and storage, plant	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
life cycles, commissioning, operations and decommissioning of plant.	
K10 Radiological measurement and protection monitoring instruments, for plant equipment.	Practical assessment with questions
K11 Emergency response radiological incident contingency plans: emergency environmental radiological releases; critical incident monitoring; forward control points (FCP) and access control points (ACP).	Interview underpinned by a portfolio of evidence
K12 Methods of interpreting and extracting information from technical drawings, data, and documentation.	Practical assessment with questions
K13 Minor maintenance activities for plant equipment: radioactive discharges, waste management, environmental control.	Practical assessment with questions
K14 Plant equipment configuration, isolation, and reinstatement techniques.	Interview underpinned by a portfolio of evidence
K15 Start up and shutdown procedures of plant equipment. Sequencing of operations.	Interview underpinned by a portfolio of evidence
K16 Common abnormalities in plant equipment operations and corrective action techniques.	Interview underpinned by a portfolio of evidence
K17 Capturing and recording of data techniques, indicating plant equipment performance.	Practical assessment with questions
K18 Sampling processes, analysis and technical logs for nuclear systems.	Practical assessment with questions
K19 Methods of minimisation, packaging, removal, and transfer of hazardous materials.	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
K20 Nuclear waste classification and categorisation techniques.	Interview underpinned by a portfolio of evidence
K21 Operating methods for standard or purpose-built equipment relevant to the nuclear operative's role and responsibilities.	Interview underpinned by a portfolio of evidence
K22 Methods of decontaminating plant equipment.	Interview underpinned by a portfolio of evidence
K23 Methods of dismantling plant equipment.	Interview underpinned by a portfolio of evidence
K24 Nuclear waste management solutions and safe disposal in line with types of radioactive waste.	Interview underpinned by a portfolio of evidence
K25 Problem solving techniques for common role related problems.	Interview underpinned by a portfolio of evidence
K26 Lifting and movement of loads: mechanical lifting equipment.	Interview underpinned by a portfolio of evidence
K27 Procedural documentation and reporting requirements of work in progress.	Interview underpinned by a portfolio of evidence
K28 Information technology and digital systems: cyber security, email, management information systems, word processing, work sharing platforms. General data protection regulation (GDPR).	Interview underpinned by a portfolio of evidence
K29 Principles of team working.	Interview underpinned by a portfolio of evidence
K30 Principles of equity, diversity, and inclusion in the workplace and the impact on their work.	Interview underpinned by a portfolio of evidence
K31 Verbal communication techniques.	Interview underpinned by a portfolio of evidence
K32	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
Written communication techniques.	
SKILL	**ASSESSMENT METHODS**
S1 Comply with health and safety and industry regulations and procedures.	Practical assessment with questions
S2 Select and use personal protective equipment (PPE) for nuclear operations. For example, use of respiratory protection equipment (RPE) and pressurised suits.	Practical assessment with questions
S3 Respond to changes in radiological conditions.	Practical assessment with questions
S4 Sets up and maintains work areas including alpha, beta, or gamma.	Practical assessment with questions
S5 Follow safety management systems. For example, standard operating procedures (SOPs), safe systems of working, risk assessments, best available technique (BAT) and, As Low As Reasonably Practicable (ALARP).	Practical assessment with questions
S6 Comply with environmental and sustainability regulations and procedures. For example, identify and segregate resources for reuse, recycling, and disposal.	Interview underpinned by a portfolio of evidence
S7 Apply human performance and human factors nuclear culture.	Interview underpinned by a portfolio of evidence
S8 Select and use radiological measurement and protection monitoring instruments: for example, smear paper, handheld radiation, and contamination rate meters, installed and portable air samplers.	Practical assessment with questions
S9 Comply with emergency response plans; carry out critical incident monitoring; use forward control points (FCP) and access control points (ACP) to respond and recover from nuclear incidents.	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
S10 Interpret and use technical documentation. For example, drawings and data.	Practical assessment with questions
S11 Conduct minor maintenance activities on plant equipment. For example, safe removal of radioactive discharge, waste management, and spillages.	Practical assessment with questions
S12 Configure, isolate, and reinstate plant equipment.	Interview underpinned by a portfolio of evidence
S13 Conduct sequential start up and shutdown of plant equipment.	Interview underpinned by a portfolio of evidence
S14 Monitor and record data for plant indications or conditions of plant equipment.	Practical assessment with questions
S15 Carry out surveillance of plant to ensure safety critical operations.	Interview underpinned by a portfolio of evidence
S16 Identify abnormalities in plant equipment operations and conduct corrective actions.	Interview underpinned by a portfolio of evidence
S17 Carry out sampling operations.	Practical assessment with questions
S18 Decontaminate radioactive plant or materials in readiness for storage and disposal.	Interview underpinned by a portfolio of evidence
S19 Dismantle plant equipment.	Interview underpinned by a portfolio of evidence
S20 Remove and transfer hazardous materials to designated waste classification and storage locations.	Interview underpinned by a portfolio of evidence
S21	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
Operate standard, or purpose-built equipment relevant to the nuclear operative's role and responsibilities.	
S22 Apply problem-solving techniques to common role related problems.	Interview underpinned by a portfolio of evidence
S23 Operate mechanical lifting equipment for moving loads.	Interview underpinned by a portfolio of evidence
S24 Use information technology and digital systems prioritising cyber security. Comply with GDPR, for example, digital communication.	Interview underpinned by a portfolio of evidence
S25 Apply team working principles.	Interview underpinned by a portfolio of evidence
S26 Follow equity, diversity, and inclusion rules.	Interview underpinned by a portfolio of evidence
S27 Record and document daily operations and work progress. For example, radiological protection monitoring data, isolation and reinstating of plant equipment.	Interview underpinned by a portfolio of evidence
S28 Communicate verbally with colleagues and managers using industry terminology.	Interview underpinned by a portfolio of evidence
S29 Communicate in writing with colleagues and managers.	Interview underpinned by a portfolio of evidence
S30 Carry out and record learning and development activities.	Interview underpinned by a portfolio of evidence
BEHAVIOUR	**ASSESSMENT METHODS**
B1 Put health and safety first.	Practical assessment with questions
B2 Take ownership of own work and responsibilities.	Practical assessment with questions

BEHAVIOUR	ASSESSMENT METHODS
B3 Respond and adapt to changing work requests.	Practical assessment with questions
B4 Demonstrate team focus to meet team goals.	Interview underpinned by a portfolio of evidence
B5 Consider human performance and human factors principles in the workplace.	Interview underpinned by a portfolio of evidence
B6 Support an inclusive workplace, being respectful of different views.	Interview underpinned by a portfolio of evidence
B7 Seek learning and development opportunities, continual professional development (CPD).	Interview underpinned by a portfolio of evidence

Mapping of KSBs to grade themes

Edit add grade themes formEdit mapping of ksbs to grade themes form

Practical assessment with questions

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Health and safety, nuclear and radiological safety K3 K4 K5 K8 S1 S2 S3 S4 S5 B1 B3	Regulatory and legislative guidance: Nuclear Installations Act (NIA); Ionising Radiation Regulations (IRR); Radiation (Emergency Preparedness and Public Information) Regulations (REPPIR); International Commission of Radiological Protection (ICRP); Approved Code of Practice (ACOP). (K3) Health and safety of those working on nuclear licensed sites: nuclear safety, radiological safety, radiation and contamination, confined spaces, Health and safety at	Comply with health and safety and industry regulations and procedures. (S1) Select and use personal protective equipment (PPE) for nuclear operations. For example, use of respiratory protection equipment (RPE) and pressurised suits. (S2) Respond to changes in radiological conditions. (S3) Sets up and maintains work areas including	Put health and safety first. (B1) Respond and adapt to changing work requests. (B3)

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
	work act. Control of Substances Hazardous to Health (COSHH). Manual handling. Personal Protective Equipment (PPE). Pressurised suits. Respiratory Protection Equipment (RPE). Situational awareness. Slips, trips and falls. Safety equipment: guards, signage, fire extinguishers. Safe systems of working. Working at height. (K4) Awareness of safety management systems: standard operating procedures (SOPs) and risk assessments. Principles of As Low As Reasonably Practicable (ALARP). Best Available Technique (BAT). (K5) Radiation types: non-ionising and ionising radiation, alpha, beta, gamma, x-ray, and neutron. Atomic structure, criticality, fusion, and fission. (K8)	alpha, beta, or gamma. (S4) Follow safety management systems. For example, standard operating procedures (SOPs), safe systems of working, risk assessments, best available technique (BAT) and, As Low As Reasonably Practicable (ALARP). (S5)	
Plant equipment routine maintenance, monitoring, and radiological protection measurement K10 K13 K17 S8 S11 S14 B2	Radiological measurement and protection monitoring instruments, for plant equipment. (K10) Minor maintenance activities for plant equipment: radioactive discharges, waste management, environmental control. (K13) Capturing and recording of data techniques, indicating	Select and use radiological measurement and protection monitoring instruments: for example, smear paper, handheld radiation, and contamination rate meters, installed and portable air samplers. (S8) Conduct minor maintenance activities on plant equipment.	Take ownership of own work and responsibilities. (B2)

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
	plant equipment performance. (K17)	For example, safe removal of radioactive discharge, waste management, and spillages. (S11) Monitor and record data for plant indications or conditions of plant equipment. (S14)	
Sampling operations K18 S17	Sampling processes, analysis and technical logs for nuclear systems. (K18)	Carry out sampling operations. (S17)	None
Technical documentation and work instructions K12 S10	Methods of interpreting and extracting information from technical drawings, data, and documentation. (K12)	Interpret and use technical documentation. For example, drawings and data. (S10)	None

Interview underpinned by a portfolio of evidence

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Health and safety K7 K26 S7 S23 B5	Awareness of how human performance and human factors affect nuclear safety culture. (K7) Lifting and movement of loads: mechanical lifting equipment. (K26)	Apply human performance and human factors nuclear culture. (S7) Operate mechanical lifting equipment for moving loads. (S23)	Consider human performance and human factors principles in the workplace. (B5)
Site security clearances K2	Security clearances and levels of personnel on nuclear licensed sites: basic clearance (BC), security clearance (SC) and developed vetting (DV) enhanced clearance. (K2)	None	None
Role of the nuclear operative	The nuclear industry function and role of	Carry out and record learning and	Seek learning and development

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
and continual professional development (CPD) K1 S30 B7	nuclear operatives. Limits of autonomy and reporting channels. (K1)	development activities. (S30)	opportunities, continual professional development (CPD). (B7)
Emergency response K11 S9	Emergency response radiological incident contingency plans: emergency environmental radiological releases; critical incident monitoring; forward control points (FCP) and access control points (ACP). (K11)	Comply with emergency response plans; carry out critical incident monitoring; use forward control points (FCP) and access control points (ACP) to respond and recover from nuclear incidents. (S9)	None
Nuclear plant equipment operations, plant life cycles K9 K14 K15 K16 K21 K23 S12 S13 S15 S16 S19 S21	Nuclear plant operations: nuclear fuel manufacture and storage, reprocessing of nuclear fuel, waste processing and storage, plant life cycles, commissioning, operations and decommissioning of plant. (K9) Plant equipment configuration, isolation, and reinstatement techniques. (K14) Start up and shutdown procedures of plant equipment. Sequencing of operations. (K15) Common abnormalities in plant equipment operations and corrective action techniques. (K16) Operating methods for standard or purpose-built equipment relevant to the	Configure, isolate, and reinstate plant equipment. (S12) Conduct sequential start up and shutdown of plant equipment. (S13) Carry out surveillance of plant to ensure safety critical operations. (S15) Identify abnormalities in plant equipment operations and conduct corrective actions. (S16) Dismantle plant equipment. (S19) Operate standard, or purpose-built equipment relevant to the nuclear operative's role and responsibilities. (S21)	None

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
	nuclear operative's role and responsibilities. (K21) Methods of dismantling plant equipment. (K23)		
Problem solving K25 S22	Problem solving techniques for common role related problems. (K25)	Apply problem-solving techniques to common role related problems. (S22)	None
Environment, sustainability, and nuclear waste management K6 K19 K20 K22 K24 S6 S18 S20	Environment and sustainability regulations and guidance. Types of pollution and control measures in the nuclear sector, including spills and waste. Waste reduction and waste streams. Recycling and reuse. Sustainable use of equipment and materials. (K6) Methods of minimisation, packaging, removal, and transfer of hazardous materials. (K19) Nuclear waste classification and categorisation techniques. (K20) Methods of decontaminating plant equipment. (K22) Nuclear waste management solutions and safe disposal in line with types of radioactive waste. (K24)	Comply with environmental and sustainability regulations and procedures. For example, identify and segregate resources for reuse, recycling, and disposal. (S6) Decontaminate radioactive plant or materials in readiness for storage and disposal. (S18) Remove and transfer hazardous materials to designated waste classification and storage locations. (S20)	None
Team working and verbal communication K29 K31	Principles of team working. (K29)	Apply team working principles. (S25)	Demonstrate team focus to

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
S25 S28 B4	Verbal communication techniques. (K31)	Communicate verbally with colleagues and managers using industry terminology. (S28)	meet team goals. (B4)
Equity, diversity and inclusion K30 S26 B6	Principles of equity, diversity, and inclusion in the workplace and the impact on their work. (K30)	Follow equity, diversity, and inclusion rules. (S26)	Support an inclusive workplace, being respectful of different views. (B6)
Documentation and use of digital information technology K27 K28 K32 S24 S27 S29	Procedural documentation and reporting requirements of work in progress. (K27) Information technology and digital systems: cyber security, email, management information systems, word processing, work sharing platforms. General data protection regulation (GDPR). (K28) Written communication techniques. (K32)	Use information technology and digital systems prioritising cyber security. Comply with GDPR, for example, digital communication. (S24) Record and document daily operations and work progress. For example, radiological protection monitoring data, isolation and reinstating of plant equipment. (S27) Communicate in writing with colleagues and managers. (S29)	None

Supporting information

External quality assurance

Edit external quality assurance - eqa form

Option selected: Ofqual

Involved employers

AWE, Cavendish Nuclear, Jacobs, Nuclear Restoration Services, Nuclear Waste Services, Nuvia, Sellafield Ltd

EPA menu