



ENERGY &  
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EEA Level 2 End-point Assessment for  
Water Process Operative  
(Clean Water Process Operative; Waste Water Process  
Operative)

## **Specification**

QAN 610/6027/6  
ST0876 V1.0

# Specification for

## EEA Level 2 End-point Assessment for Water Process Operative (Clean water process operative; Waste water process operative)

**QAN 610/6027/6**

Section 1: At a Glance EPA Summary .....	4
Objective .....	5
Gateway Readiness .....	6
Recognition of prior learning (RPL) .....	6
Section 2: End-point Assessment Components .....	7
Component 1: Observation with Questions .....	7
Component 2: Interview (based on a portfolio of evidence) .....	22
Component 3: Multiple-choice Test .....	31
Section 3: Grading and Grading Criteria .....	39
Component 1: Observation with questions .....	39
Component 2: Interview based on a portfolio of evidence .....	48
Component 3: Multiple-choice Test .....	52
Overall grading .....	52
Section 4: Resits and retakes .....	53
Section 5: Practical Guidance .....	54
Water Process Operative Practical Observation and Planning Form .....	54
Preparing for the Observation with Questions .....	55
Preparing for the Interview .....	56
Guidance on Portfolio of Evidence .....	56
Preparing for the Multiple-choice Test .....	59
Section 6: Authenticity and security of apprentice work .....	60

## Updates to this specification

Since the first publication of Energy & Environment Awards Water Process Operative Specification – Clean water process operative; Waste water process operative, the following updates have been made.

Version	Date first published	Section updated	Page(s)
v4.0	August 2025	Rebranded	All
v3.0	September 2023	Rebranded and revised using new Energy & Environment Awards specification template	All
v2.0	February 2023	Amended text for K25 and K32	10
v1.1	February 2022	First published	All

## Section 1: At a Glance EPA Summary

Qualification name	EEA Level 2 End-point Assessment for Water Process Operative
Ofqual qualification number	610/6027/6
Standard reference	ST0876
Assessment plan	AP02
Standard title	Water Process Operative
Pathways	Clean water process operative Waste water process operative
Level	2
Gateway pre-requisites submitted to Energy & Environment Awards	Apprentice has: <ul style="list-style-type: none"> <li>• achieved English and maths qualifications in line with the apprenticeship funding rules</li> <li>• compiled and submitted a portfolio of evidence, which the interview will be based on</li> </ul>
On-programme duration	Typically 18 months
Gateway readiness	Apprentice has met all Gateway pre-requisites. Employer completes, signs and submits Gateway Eligibility Form (GER) form to Energy & Environment Awards. See Appendix B, WPO Supporting Documents 'Gateway Eligibility Form.'
End-point assessment duration	Typically 3 months after the Gateway

End-point assessment methods and their order	<ul style="list-style-type: none"> <li>• Observation with questions</li> <li>• Interview based on portfolio of evidence</li> <li>• Multiple-choice test</li> </ul>
End-point assessment methods and component grading	Practical Assessment with questioning: Fail, Pass or Distinction Interview based on portfolio of evidence: Fail, Pass or Distinction Multiple-choice Test: Fail or Pass
Overall Grading	Fail; Pass; or Distinction
Certification	Energy & Environment Awards request Apprenticeship completion certificates from the ESFA
Glossary of Terms	Appendix A, WPO Supporting Documents

## Objective

The purpose of the Water Process Operative (WPO) end-point assessment (EPA) is to confirm that an apprentice is fully capable of doing their job before they receive their apprenticeship certificate. It also helps to demonstrate that what an apprentice has learned can be applied in the real world.

Once the apprentice has completed the WPO end-point assessment requirements successfully and has been certified they could take on the following job roles:

- Water plant operator
- Water process assistant
- Water production operative
- Water production technician
- Water technical operator
- Sewage operative
- Waste water operational technician
- Waste water operator
- Waste water process operator

- Waste water process technician

## Gateway Readiness

The employer must be satisfied that the apprentice is consistently working at, or above, the level of the occupational standard. Gateway pre-requisites are listed in the summary table above.

## Recognition of prior learning (RPL)

Energy & Environment Awards does not recognise any apprentice prior learning (RPL) or prior achievement (RPA) for the purpose of amending the assessment requirements of any end-point assessments.

Please refer to Energy & Environment Awards RPL and RPA policy at <https://energyenvironmentawards.co.uk/policies-and-fees/>

In order for Energy & Environment Awards to award an end-point assessment qualification, the apprentice must successfully complete all required assessment components with Energy & Environment Awards. This means that:

- each of the EPA components must be completed in full with Energy & Environment Awards
- where an apprentice transfers to Energy & Environment Awards from another EPAO they have to undertake the entire EPA with Energy & Environment Awards
- components of the EPA cannot be certificated in isolation
- evidence produced for the portfolio must be related to the time the apprentice is on their apprenticeship programme to demonstrate current practice
- examples used by the apprentice, during the interview, must relate to the time they were on their apprenticeship programme

This does not affect the Gateway requirements which must be met in order for an apprentice to be eligible for end-point assessment.

This does not affect any reasonable adjustments that may be granted.

## Section 2: End-point Assessment Components

### Component 1: Observation with Questions

#### Overview

In an observation with questions, an independent assessor, appointed by Energy & Environment Awards, observes an apprentice undertaking work as part of their normal duties, under normal working conditions. The apprentice will demonstrate the application of the relevant core and specific job role knowledge, skills and behaviours (KSBs) through naturally occurring evidence. The observation must be of an apprentice completing their usual work and simulation is not permitted. The independent assessor will ask questions in relation to underpinning knowledge or where an opportunity to observe an activity has not naturally occurred.

The apprentice will be observed carrying out the following activities:

- Work preparation:
  - complete dynamic risk assessment and identify control measures (written or visual)
  - select tools and equipment
- Take, test and record water - a minimum of three different types of samples from across the process, checking and recording compliance levels
- Apply minimum of two water processes
- Conduct a minimum of two types of first line operation maintenance on water assets.

The apprentice must be allowed to synoptically demonstrate the application of the relevant core and specific job role knowledge, skills and behaviours (KSBs) through naturally occurring evidence. The independent assessor will ask questions before or during the observation. To remain as unobtrusive as possible, the independent assessor will ask questions during natural breaks between tasks and after completion of work rather than disrupting the apprentice's flow.

Centres unfamiliar with this standard are strongly recommended to use Energy & Environment Awards Practical Observation Review service to help ensure the practical task is suitable for end-point assessment.

## Step-by-Step Guide

The table below provides a step-by-step guide on how the observation with questions will be carried out:

Assessors	1 independent assessor, appointed by Energy & Environment Awards.
Practical structure	<p>The total assessment time is 4 hours – the time for questioning is included in the overall assessment time.</p> <p>Apprentices may be assessed completing the duties over one or more sites.</p> <p>An independent assessor may observe only one apprentice at any one time, to ensure quality and rigour.</p> <p>The independent assessor will ask standardised open questions, with follow up questions as appropriate, to confirm their understanding of the rationale for actions taken and the choices made to complete the tasks.</p> <p>Questioning will take place both during and after work completion.</p> <p>The observation with questions, may not be split other than to allow the apprentice to move from one location to another and for meal/comfort breaks.</p> <p>During these breaks, the clock will be stopped and then restarted to ensure that the assessment duration is not reduced.</p> <p><b>See pages [11-20] for the full list of KSBs to be covered in the practical observation</b></p>
Where will the assessment take place?	The observation with questions should take place in a water utility site operated by the apprentice's employer, which the apprentice is familiar with.



	Questioning, after work completion, must take place in a quiet room, free from distractions and influence.
What are the tasks that will be covered?	<p>The assessment task must allow the apprentice to undertake the activities. For further details refer to 'Knowledge, Skills and Behaviours (KSBs) Coverage' below pages [11-20].</p> <p>The observation must also allow the apprentice to demonstrate the behaviours listed in the next section.</p>
Who sets the task(s)?	<p>Employer or training provider set the tasks based on the guidance provided in this Specification. Centres unfamiliar with the WPO standard should use Energy &amp; Environment Awards Practical Observation review Service to review proposed practical tasks before end-point assessment takes place. The task must provide apprentices with the opportunity to achieve all the KSBs assessed in the practical observation.</p> <p>Energy &amp; Environment Awards will work with the employer and/or training provider to review the practical task briefs/job task sheets which are based on the activities described above.</p> <p>The apprentice must be provided with both written and verbal instructions by the independent assessor on the tasks.</p>
What resources can the apprentice use?	<p>Equipment and resources needed for the observation must be:</p> <ul style="list-style-type: none"> <li>provided by the employer</li> <li>the plant, machinery, equipment and PPE required for the job</li> <li>in good and safe working condition</li> </ul> <p>Relevant work instructions/manuals must be available in hard copy or electronically.</p>
How many questions will the apprentice be asked?	<p>The independent assessor:</p> <ul style="list-style-type: none"> <li>will ask a minimum of eight questions across the tasks</li> <li>may ask follow-up questions in order to seek clarification</li> <li>will ask questions about KSBs that were not observed to gather assessment evidence. These questions are in</li> </ul>

	addition to the minimum EIGHT questions for the observation
What will the questions focus on?	Underpinning knowledge and/or skills and behaviours where an opportunity to observe them has not occurred.
Grading	Fail, Pass or Distinction.

## Observation Knowledge, Skills and Behaviours (KSBs) coverage

The observation with questions covers:

Observation Elements: Knowledge	Amplification and Guidance (where required)
<p><b>K3 Core.</b> Policy and procedures: operating manual, safety, emergencies, security, isolation – their purpose.</p>	<p><b>Policy &amp; Procedures</b></p> <ul style="list-style-type: none"> <li>• <b>safe systems of work</b> - Apprentice should have a general knowledge and be able to apply to the tasks given at Trade Test</li> <li>• <b>site operational manual</b> – Apprentice should be able to locate and use</li> <li>• <b>accident reporting procedure</b> – Apprentice should be able to explain the specific procedure required by their employer</li> <li>• <b>security procedures for specific site</b> - Apprentice should be able to explain the specific security procedures for their site e.g., gate policy visitor sign-in book, site induction etc.</li> <li>• <b>isolation</b> – Apprentice should be able to explain the importance of “lock-off tag-off”</li> <li>• <b>illness policy</b> – Each water company will have a general sickness reporting policy but this should be expanded for staff working on restricted operations in the event of any gastrointestinal illness</li> <li>• <b>Permit to work Procedure</b> – A Level 2 apprentice would not normally be required (or qualified) to write a permit to work risk assessment.</li> </ul>

Observation Elements: Knowledge	Amplification and Guidance (where required)
	However, they should know the types of activities which would require one (e.g., high-risk confined spaces).
<b>K5 Core.</b> Dynamic risk assessments.	<b>Risk assessments</b> <ul style="list-style-type: none"> <li>• <b>Dynamic or Task Based Risk Assessment</b> – Apprentice should be able to explain what they are and demonstrate they can correctly complete one based on a Trade Test task</li> <li>• <b>Permit to work</b> – A Level 2 apprentice would not normally be required (or qualified) to write a permit to work risk assessment. However, they should know the types of activities which would require one (e.g., high-risk confined spaces)</li> <li>• <b>General Risk Assessments</b> – Apprentice should be able to locate general risk assessments from company database for standard tasks such as receiving chemical deliveries</li> <li>• <b>General Risk Assessment Knowledge</b> – Apprentice should be able to explain the terms “hazard”, “risk” and “control measure” and give specific examples from a water treatment context</li> </ul>
<b>K8 Core.</b> First line operational maintenance: different types - cleaning, greasing, and	

Observation Elements: Knowledge	Amplification and Guidance (where required)
washing, removing debris and clearing blockages.	
<b>K9 Core.</b> Maintenance tools and equipment: rakes, spades, pressure washers, brushes, spanners.	
<b>K10 Core.</b> Telemetry and monitoring processes; monitoring variables including flow, quality, turbidity (particles), chemical usage. Limits, consequences of being outside limits.	<ul style="list-style-type: none"> <li>• <b>SCADA &amp; Current Site Condition</b> – Apprentice should be able to access the site's SCADA, use it to discuss what it tells them about each aspect of treatment (e.g., clarification, filtration, disinfection). For example, <i>"Show me the current turbidity of water pre-disinfection"</i></li> <li>• <b>SCADA &amp; Historical Data</b> - Apprentice must compare trends / historical information. For example, <i>"Show me the pre-disinfection turbidity trend over the past 10 days"</i></li> <li>• <b>SCADA Limitations</b> – Apprentice should be able to explain how the in-process monitors which feed SCADA information from throughout the site are checked for accuracy, verified and calibrated</li> </ul>
<b>K20 Clean water process operative.</b> Clean water sampling requirements: different types of samples, sample points, storage, labelling, safe	<ul style="list-style-type: none"> <li>• <b>Different Types of Samples</b> – Apprentices should know the difference between the samples they lift daily to check operational performance and those that are taken to a central lab for compliance testing</li> </ul>

Observation Elements: Knowledge	Amplification and Guidance (where required)
disposal, recording results, permits and consent parameters.	<ul style="list-style-type: none"> <li>• <b>Consent Parameters</b> – Apprentices should know the action limits for key stages of the water treatment process and what would/should cause an automatic site shutdown (e.g., pre-disinfection turbidity greater than 1NTU)</li> <li>• <b>Recording Results</b> – Apprentice should be able to discuss and demonstrate how they record daily site checks, sample results and any operational issues</li> </ul>
<b>K31 Wastewater process operative.</b> Wastewater sampling requirements: different types of samples, sample points, storage, labelling, safe disposal, recording results, permits and consent parameters.	<ul style="list-style-type: none"> <li>• <b>Different Types of Samples</b> – Apprentices should know the difference between the samples they lift daily to check operational performance (grab samples) and those that are collected by autosamplers (composite) taken to a central lab for compliance testing</li> <li>• <b>Accuracy of different types of samples</b> – Apprentices should know that a composite sample will give a more accurate picture of the site's performance over a 24-hour period, but a grab sample will give a more accurate picture of the current condition of the process at the point it was taken</li> <li>• <b>Consent Parameters</b> – Apprentices should know the permit conditions for their site e.g., 30mg/l Suspended Solids, 20mg/l BOD, 10mg/l ammonia</li> </ul>

Observation Elements: Knowledge	Amplification and Guidance (where required)
	<ul style="list-style-type: none"> <li>• <b>Recording Results</b> – Apprentice should be able to discuss and demonstrate how they record daily site checks, sample results and any operational issues</li> </ul>

Observation Elements: Skills	Amplification and Guidance (where required)
<b>S1 Core.</b> Organise and prioritise work.	
<b>S2 Core.</b> Identify risks and control measures.	
<b>S3 Core.</b> Follow health and safety and environmental legislation, regulations and practice. For example, apply control measures, wear PPE, harness, gas detector and breathing apparatus required for the task.	<b>Gas Detector</b> - Apprentice should be able to demonstrate how they check their personal gas monitor is working correctly
<b>S4 Core.</b> Read and interpret information/data.	<b>Work Information</b> – Apprentice should be able to demonstrate how they receive, interpret and sign-off work instructions (e.g., Toughbook, Mobile Work Manager)

Observation Elements: Skills	Amplification and Guidance (where required)
	<p><b>Water Quality Data</b> – Apprentice should be able to find and discuss data relating to the raw water/crude sewage entering the water/wastewater treatment site, the final water, final effluent leaving the site</p> <p><b>Alarms</b> – using SCADA (if available for site) the Apprentice should be able to find data on recent site alarms and explain their significance and what action (if any) has been undertaken by the team to clear them</p>
<b>S6 Core.</b> Undertake sensory analysis.	<p><b>Sensory analysis</b> – Apprentice should explain (with examples) how they can use their sense of sight, hearing, smell and touch to monitor the conditions of assets on their site.</p>
<b>S7 Core.</b> Use measuring equipment.	<p><b>Measuring equipment at Water Treatment Sites</b>– Apprentices on clean water sites should be able to use measuring equipment provided to test for parameters such as free and total chlorine, pH, turbidity, iron, aluminium, temperature, phosphate etc</p> <p><b>Measuring equipment at Wastewater Treatment Sites</b>– Apprentices on wastewater treatment sites should be able to use measuring equipment provided to test for parameters such as pH, turbidity, suspended solids, ammonia, phosphate, Chemical Oxygen Demand (COD) etc</p>
<b>S9 Core.</b> Determine action and follow procedure.	<p><b>Action and procedure for site failure</b> - Inform apprentice that the sample they have analysed is above the action limit level.</p>



Observation Elements: Skills	Amplification and Guidance (where required)
	<ul style="list-style-type: none"> <li>• Ask what do they need to do next?</li> <li>• Why do you need to repeat the sample and compare with any on-line monitors</li> <li>• Where they would take additional samples from and what the results might show</li> <li>• What might be happening in the process to cause the trend</li> <li>• Actions they would take based on results</li> <li>• Who they need to report to</li> <li>• Company policies and reporting procedures for compliance breaches</li> </ul>
<b>S10 Core.</b> Undertake first line operational maintenance of assets.	<b>Assets</b> – e.g., screens, clarifiers, pumps, rapid gravity filters, slow sand filters, fixed-film filters chemical dosing, aeration, chemical storage etc
<b>S11 Core.</b> Select and use tools and equipment; check/calibrate equipment.	<b>Tools</b> – may include manhole lifting keys, LOTO keys, Allen Keys, spanner, wrench, valve key <b>Equipment</b> – likely to include sampling and test equipment such as sampling arm, pH monitor, chlorine testing kit, Palintest Turbidity Tube, Hach testing kits for ammonia, aluminium, iron, phosphate etc.
<b>S12 Core.</b> Undertake first line maintenance of tools and equipment, for example cleaning.	Apprentice should be able to demonstrate basic maintenance of tools and equipment mentioned in S10 guidance

Observation Elements: Skills	Amplification and Guidance (where required)
<b>S13 Core.</b> Store tools and equipment.	
<b>S14 Core.</b> Maintain housekeeping: tidy, segregate and dispose of waste.	
<b>S15 Core.</b> Prepare and use chemicals.	<p><b>Chemicals</b> - may include any aluminium or iron-based chemical used in clarification e.g., ferric sulfate or Aluminium sulfate, lime Nutriox, Polyelectrolytes, orthophosphoric acid, hexafluorisilic acid, chlorine, hypochlorous acid etc</p> <p><b>Chemical Storage</b> – Apprentice should be able to discuss how and where chemicals used at their site are safely stored</p>
<b>S18 Core.</b> Communicate – verbal.	
<b>S19 Core.</b> Use technology.	<b>Technology</b> – to include (where available) SCADA, HMI, Telemetry, mobile phone (apps and camera), lone worker devices, Toughbook/pad etc
<b>S20 Core.</b> Record information/complete documentation.	
<b>S21 Clean water process operative.</b> Take clean water sample; process.	<b>Process</b> – the Apprentice should be able to lift a representative sample from each of the site's sample points (e.g., raw water, post-clarification, Reg-26,

Observation Elements: Skills	Amplification and Guidance (where required)
	final water etc) and test for at least two of the following: pH, turbidity, Free Chlorine, Phosphate, Iron, Aluminium, UV Transmissivity, conductivity
<b>S22 Clean water process operative.</b> Operate clean water treatment work assets.	<b>Assets</b> – may include screens and raw water inlet, clarification, filtration, membranes, disinfection, chemical storage and dosing points, pumps, sludge press/centrifuge etc
<b>S23 Clean water process operative.</b> Apply clean water treatment processes.	<b>Processes</b> – e.g., manual backwash of Rapid Gravity Filters, changing chlorine dosing pumps between duty and standby etc
<b>S24 Wastewater process operative.</b> Take wastewater sample; process.	<b>Process</b> – the Apprentice should be able to lift a representative sample from each of the site's sample points (e.g., raw water, post-primary settlement, final effluent etc) and test for at least two of the following: pH, turbidity, Phosphate, Iron, Aluminium, ammonia, conductivity, suspended solids, mixed liquor suspended solids (MLSS), Chemical Oxygen Demand (COD)
<b>S25 Wastewater process operative.</b> Operate wastewater treatment work assets.	<b>Assets</b> – may include screens, grit clarifiers, storm overflow, storm tanks, primary settlement tanks, aeration lanes or fixed-film biofilters, humas or final settlement tanks, tertiary treatment, chemical storage and dosing points, pumps, sludge press/centrifuge etc
<b>S26 Wastewater process operative.</b> Apply wastewater treatment processes.	<b>Processes</b> – e.g., isolate and clean screens, take sludge blanket level reading

Observation Elements: Behaviours	Amplification and Guidance (where required)
<b>B1 Core.</b> Prioritises on health, safety and environment for example, challenges unsafe practice, says 'no' where action could have negative impact.	
<b>B2 Core.</b> Takes responsibility for work for example, completes allocated work, takes proactive approach, knows own limitations and asks for help where required.	
<b>B3 Core.</b> Professional for example, ethical – does the right thing, trust-worthy; presents positive image of self and company – work attire worn, polite and respectful	

## Observation with Questions Roles and Responsibilities

Role	Responsibility
Independent Assessor	Record and report assessment outcome decisions for each apprentice, following instructions and using assessment recording documentation provided by Energy & Environment Awards.
Employer/Training Provider	<p>The training provider must liaise effectively with the employer to ensure the apprentice is prepared for the observation with questions.</p> <p>Provide the venue for the observation which must be suitably equipped to allow the apprentice to attempt all aspects of the observation.</p> <p>Provide all necessary tools and equipment for the apprentice.</p> <p>Ensure the apprentice has access to the resources used on a daily basis.</p> <p>Use Energy &amp; Environment Awards Practical Observation review Service to review fitness for purpose of the assessment task</p>
Energy & Environment Awards	Arrange for the observation to take place, in consultation with the employer/training provider and independent assessor.

## Component 2: Interview (based on a portfolio of evidence)

### Overview

The interview is based on the apprentice's portfolio of evidence and focuses on the KSBs. The interview allows for testing of responses where there are a range of potential answers.

The portfolio, compiled throughout the apprenticeship and completed by Gateway must be submitted to Energy & Environment Awards.

### Step-by-Step Guide

The table below provides a step-by-step guide on how the interview based on the portfolio of evidence will be carried out:

Assessors	1 independent assessor approved by Energy & Environment Awards
Interview (based on the portfolio) structure	<p><b>Number of questions:</b> A minimum of nine open questions. Additional follow up questions are allowed, to seek clarification.</p> <p><b>Location:</b> A quiet room on the employer's premises or a suitable venue for example a training provider's premises or another employer's premises.</p> <p><b>Time:</b> 1 hour</p> <p><b>The interview will be:</b></p> <ul style="list-style-type: none"> <li>• face to face or remote, as agreed</li> <li>• recorded in writing using the interview record template provided by Energy &amp; Environment Awards</li> <li>• video recorded using relevant technology such as Microsoft Teams or an audio recording device</li> <li>• conducted under examination conditions</li> </ul> <p>The apprentice will have access to their portfolio of evidence throughout the interview.</p> <p>Portfolio:</p>

	<ul style="list-style-type: none"> <li>• The apprentice's Manager/Mentor will typically support the development of the evidence portfolio in accordance with company policy and procedures</li> <li>• See 'Portfolio of Evidence Requirements' guidance below on the content of evidence</li> <li>• The portfolio must contain sufficient quality evidence relating to each element of the standard covered by the interview. Typically, this will be contained in small number of job write-ups produced towards the end of the training periods</li> <li>• Although questioning will cover ALL the elements of the standard (listed below in this section of the Specification), they will prioritise areas according to what they see in the portfolio</li> </ul>
What topics will be covered?	For further details refer to 'Knowledge, Skills and Behaviours (KSBs) Coverage below pages [25-29].
When will the portfolio of evidence be referred to?	<p><b>The portfolio of evidence:</b></p> <ul style="list-style-type: none"> <li>• will be reviewed by the independent assessor before the interview</li> <li>• can be referred to by the apprentice to illustrate their answers</li> </ul> <p>Note: the portfolio of evidence is not directly assessed.</p>
Grading	Fail, Pass or Distinction

### Portfolio of Evidence Requirements

The requirements are as follows:

#### **Portfolio Mapping Document**

The apprentice must map their portfolio of evidence to the KSBs as this evidence will be used by the independent assessor to assess the apprentice during the interview. The portfolio mapping document must be clearly referenced and included at the front of the portfolio.

For further guidance on mapping refer to:

- Section 5 Practice Guidance on portfolio of evidence and apprentice mapping
- Appendix G, Acronym Supporting Documents 'Portfolio Mapping Document.'

**How will the training provider submit the apprentice's Portfolio to Energy & Environment Awards?**

As part of the pre-requisite gateway requirements the apprentice must have compiled and submitted a portfolio of evidence that includes a portfolio mapping document (placed at the front of the portfolio), which the interview will be based on.



## Interview Knowledge, Skills and Behaviours (KSBs) coverage

The Interview based on portfolio of evidence covers:

Interview Elements: Knowledge	Amplification and guidance (where required)
<b>K2 Core.</b> Water process operative role; position in structure, limits of authority; escalation procedures.	
<b>K11 Core.</b> Water process fault finding techniques – visual, flow, odour, listening.	
<b>K12 Core.</b> Chemicals: delivery and storage requirements - permits, limits.	<b>Chemicals</b> – may include any aluminium or iron-based chemical used in clarification e.g., ferric sulphate or Aluminium sulphate, Nutriox, lime, Polyelectrolytes, orthophosphoric acid, hexafluorosilicic acid, chlorine, hypochlorous acid etc
<b>K15 Clean water process operative.</b> Clean water operating parameters, consequences of failure, impact of weather conditions on treatment processes.	<b>Parameters</b> – should include pH, turbidity, free and total chlorine. May also include: aluminium, iron, phosphate, transmissivity, temperature, conductivity, contact time
<b>K16 Clean water process operative.</b> Clean water treatment work assets and equipment:	

Interview Elements: Knowledge	Amplification and guidance (where required)
pumps, pressure vessels, reservoirs, tanks, valves.	
<b>K17 Clean water process operative.</b> Consequence of asset failure on clean water process.	<b>Consequences</b> – severe/worst-case to include death and serious illness of the public. Significant asset failures are also likely to lead to DWI prosecution in court, unlimited fines, loss of reputation, loss of public confidence in their water supply. At the lower end of the scale: water may not be suitable to enter supply, the public may experience low pressure or temporary loss of supply (DG2 and DG3 failures), cost of replacement or repair etc.
<b>K26 Wastewater process operative.</b> Wastewater operating parameters, consequences of failure, impact of weather conditions on treatment processes.	<b>Wastewater operating parameters</b> – Will include at least two of the following: turbidity, suspended solids, Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), ammonia, phosphate, total nitrogen (TN), Iron, Aluminium, Mixed Liquor Suspended Solids (MLSS), Settled Sludge Volume Index (SSVI), dissolved oxygen, pH  <b>Consequences of failure</b> - severe/worst-case to include: Category 1 pollution incident which causes major, serious, persistent and/or extensive impact or effect on the environment. Should the asset failure lead to a breach of the site's Permit conditions: prosecution and subsequent unlimited fines, loss of reputation. At the lowest impact, the site may still function but

Interview Elements: Knowledge	Amplification and guidance (where required)
	<p>with a reduced performance or capacity while remaining within its permit limits.</p> <p><b>Impact of weather conditions on treatment processes</b> – The Apprentice should understand what happens when influent flows reach 3 x DWF (Dry Weather Flow), how storm water is dealt with, that increased flow into tanks will reduce retention time and treatment effectiveness. Site's using the Activated Sludge Process (ASP) for biological treatment can adjust F/M balance to compensate for high/low flows by altering the Return Activated Sludge (RAS). Sites using fixed-film or biofilters for biological treatment can dry out in low flow conditions if final effluent is not recirculated, high flows will reduce retention time in the filters resulting in a reduction of the filter's ability to reduce ammonia.</p>
<p><b>K27 Wastewater process operative.</b> Wastewater treatment work assets and equipment: primary settlement tanks, biological filters, activated sludge plants, final settlement tank, digesters. Flow meters, pumps, screens.</p>	
<p><b>K28 Wastewater process operative.</b> Consequence of wastewater asset failure.</p>	<p><b>Consequences of failure</b> - severe/worst-case to include Category 1 pollution incident which causes major, serious, persistent and/or extensive</p>

Interview Elements: Knowledge	Amplification and guidance (where required)
	impact or effect on the environment. Should the asset failure lead to a breach of the site's Permit conditions: prosecution and subsequent unlimited fines, loss of reputation. At the lowest impact, the site may still function but with a reduced performance or capacity while remaining within its permit limits.

Interview Elements: Skills	Amplification and Guidance (where required)
<b>S5 Core.</b> Identify trends.	Trends – may include flows, parameter performance such as turbidity or comparisons showing the relationship between parameters (e.g., when the temperature drops, the ammonia level in final effluent increases)
<b>S8 Core.</b> Apply fault finding techniques.	Techniques – sample and test before and after each stage the process to identify a failing asset or part of the process. Verify online instruments with manual sampling and analysis. Speak to experienced operators, technical staff (e.g., Process Scientist) to gain further guidance.
<b>S16 Core.</b> Audit and request chemical and or consumables stock.	<b>Chemicals</b> - ferric sulphate or Aluminium sulphate, Nutriox, lime, Polyelectrolytes, orthophosphoric acid, hexafluorosilicic acid, chlorine, hypochlorous acid, fuel

Interview Elements: Skills	Amplification and Guidance (where required)
	<b>Consumables</b> – safety equipment such as disposable gloves and eye protection, stationary such as site diary or site result sheets, laboratory testing kits, pH buffer solution
<b>S17 Core.</b> Check chemical deliveries – quality/content.	<b>Chemicals</b> - ferric sulphate or Aluminium sulphate, Nutriox, lime, Polyelectrolytes, orthophosphoric acid, hexafluorosilicic acid, chlorine, hypochlorous acid, fuel

Elements: Core Behaviours	Amplification and Guidance
<b>B4:</b> Core. Team player for example, keeps other informed.	
<b>B5:</b> Core. Customer focus for example, polite, courteous.	

## Interview Roles and Responsibilities

Role	Responsibility
Independent Assessor	Record and report assessment outcome decisions for each apprentice, following instructions and using assessment recording documentation provided by Energy & Environment Awards.
Employer/Training Provider	<p>Ensure that the portfolio of evidence has been submitted to Energy &amp; Environment Awards at Gateway.</p> <p>The interview must be scheduled with Energy &amp; Environment Awards for a date and time which allow the apprentice to be well prepared.</p> <p>Ensure the apprentice has access to their portfolio before and on the day of the interview.</p>
Energy & Environment Awards	Arrange for the interview to take place, in consultation with the employer/training provider and independent assessor.

## Component 3: Multiple-choice Test

### Overview

The multiple-choice test is paper based. Apprentices have 60 minutes to complete the test. It consists of 40 multiple-choice questions.

The multiple-choice questions will have four possible answers of which one will be correct.

The Pass mark is 28 correct answers.

For this paper:

- access to the internet or intranet is NOT allowed

Apprentices must take the test in a quiet space, free from distractions and influence, in the presence of an invigilator.

### Multiple-choice Test Coverage

40% of questions will cover core knowledge and 60% will be relevant to the pathway (clean water, waste water) that the apprentice is following.

The table below lists each of the knowledge elements, assessed in the multiple-choice test, with additional amplification and guidance, where appropriate, from Energy & Environment Awards on the range and depth expected. Energy & Environment Awards has worked with employers and subject matter experts to develop the amplification and guidance.

Number of Questions	Knowledge	Amplification and Guidance (where required)
3-4	<b>K1 Core.</b> The water industry: the water cycle and key stakeholders: Regulators (Drinking Water Inspectorate (DWI), Water Services Regulation Authority (OFWAT), Environment Agency (EA) and Health & Safety Executive (HSE), customers; Customer Experience Measure (CMEX).	
3-4	<b>K4 Core.</b> Health and safety legislation/regulations: Health & Safety at Work, Control of Substances Hazardous to Health (COSHH), manual handling,	



Number of Questions	Knowledge	Amplification and Guidance (where required)
	working in confined spaces, working at height, lone worker.	
3-4	<b>K6 Core.</b> Health and safety equipment: Personal Protective Equipment (PPE), Harnesses, gas detectors and breathing apparatus. Their purpose, checking and storage requirements.	
3-4	<b>K7 Core.</b> Environmental legislation and practice. Environmental Protection Act - safe disposal of waste.	
3-4	<b>K13 Core.</b> Calculations: dilutions/concentrations, flows, conversions.	<b>Calculations</b> – may include retention time, contact time, dilutions, conversions between litres, cubic meters and Megalitre etc.
3-4	<b>K14 Clean water process operative.</b> Different clean water treatment processes and purpose.	<b>Processes</b> – may include clarification, filtration (e.g., Rapid Gravity Filter (RGF), Slow Sand Filter (SSF), Manganese Filters, Granular Activated Carbon (GAC)), disinfection (chlorine-based, ozone-based and/or UV-based), chemical dosing.

Number of Questions	Knowledge	Amplification and Guidance (where required)
3-4	<b>K18 Clean water process operative.</b> Different types of water sources.	<b>Water sources</b> – upland, lowland and ground water sources.
3-5	<b>K19 Clean water process operative.</b> Water usage diurnal (daily) profile and impact of bursts; water cycle, flooding, drought, industries.	
3-5	<b>K21 Clean water process operative.</b> Chemicals used in clean water process: chlorine, coagulants, disinfectant chemicals, pH correction, orthophosphoric acid, hexafluorisilic acid polymers, ozone; their use, dosage and health and safety risks.	
3-4	<b>K22 Clean water process operative.</b> Water as a food source – importance of wholesomeness, why it is treated.	

Number of Questions	Knowledge	Amplification and Guidance (where required)
3-4	<b>K23 Clean water process operative.</b> Clean water principles/procedures; Water Hygiene – Blue Card, Leptospirosis Card (Weil’s disease).	<b>Principles/procedures</b> – who needs a NWH Card, the concept of wholesome water and restricted operations, the symptoms and dangers of Weil’s disease and procedure for reporting if an operator believes they are ill
3-4	<b>K24 Clean water process operative.</b> Clean water equipment: testing, cleaning, segregation, disinfection process and hygienic storage requirements.	
2-4	<b>K25 Wastewater process operative.</b> Different types of waste water treatment processes and purpose. Preliminary, Primary, secondary, tertiary, and sludge.	
2-4	<b>K29 Wastewater process operative.</b> Different types of waste: domestic, tanker, trade.	

Number of Questions	Knowledge	Amplification and Guidance (where required)
2-4	<b>K30 Wastewater process operative.</b> Flow: volumes, permits, catchment area consent and impact of weather conditions.	
2-4	<b>K32 Wastewater process operative.</b> Chemicals used in waste water process: Nutriox, Ferric, Chloride, Sulphate, Ferris Chloride, Polyelectrolytes, Aluminium Sulphate.	
2-4	<b>K33 Wastewater process operative.</b> Impact of operational performance on customer and environment - smell, pollution.	
2-4	<b>K34 Wastewater process operative.</b> Commercial value of sludge.	
2-4	<b>K35 Wastewater process operative.</b> Sludge tank monitoring requirements and dry solids.	<b>Monitoring requirements</b> – primary, secondary, humas and sludge holding tank levels, how dry solids is tested, why dry solids is

Number of Questions	Knowledge	Amplification and Guidance (where required)
		important for pumping, transport, treatment and final disposal of sludge
2-4	<b>K36 Wastewater process operative.</b> Health hazards from working with wastewater.	<b>Health hazards</b> – to include: contamination from wastewater (e.g., typhoid), needle prick injury/infection from handling screenings, Weil's disease, manual handling injuries, slips, trips falls, confined space and chemical handling risks.

## Multiple-choice Test Roles and Responsibilities

Role	Responsibility
Invigilator	Approved by Energy & Environment Awards. Attend induction training as directed by Energy & Environment Awards.
Employer/Training Provider	Ensure that the multiple-choice test is scheduled with Energy & Environment Awards for a date and time which allow the apprentice to be well prepared.
Energy & Environment Awards	Arrange for the multiple-choice test to take place, in consultation with the employer/training provider. Mark multiple-choice test answers accurately according to the mark scheme and procedures.

## Section 3: Grading and Grading Criteria

### Component 1: Observation with questions

A Fail will be awarded if an apprentice has not achieved **all** the Pass descriptors.

To gain a Pass, an apprentice must successfully achieve **all** the descriptors for each KSB, as shown below.

To achieve a Distinction an apprentice must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors.

Observation KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors
<b>Work preparation</b> <b>S1</b>	<b>S1</b> Organises tasks in order of priority	<b>S1</b> Justifies their order of work task priority and explains any grouping of tasks in relation to cost/time saving
<b>Health, safety and environment</b> <b>K5</b> <b>S2 S3</b> <b>B1</b>	<b>K5</b> Conducts dynamic risk assessment (written or visual) <b>S2</b> identifies any workplace risks and suitable control measures <b>S3</b> Follows safe working	<b>K5</b> Explains compliance with health and safety procedures with reference to the impact on individuals, business and the environment

Observation KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors
	practices and applies control methods; wears PPE, harness, gas detector and breathing apparatus required for the task correctly, follows method statement <b>B1</b> ensures health, safety and the environment is prioritised	
<b>Policy and procedures/ determine action</b> <b>K3</b> <b>S9</b>	<b>S9</b> Determines appropriate action to be taken based on operational circumstances <b>K3</b> Understands and follows appropriate policy and procedures	<b>K3</b> Gives reasons for their choice of action over other options
<b>First line operational maintenance</b> <b>K8</b> <b>S10</b>	<b>S10</b> Completes required first line operational maintenance of assets in line with company instructions <b>K8</b> Understand the different types of operational maintenance	<b>K8</b> Explains the need to undertake operational maintenance that follows company policies/procedures



Observation KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors
<b>Tools and equipment</b> <b>K9</b> <b>S11 S12 S13</b>	<b>S11</b> Selects, checks and uses appropriate tools and equipment for the task (including calibrating tools/equipment) in accordance with the specification and manufacturer's/company's instructions <b>K9</b> knows how to operate in accordance with the specification and manufacturer's/company's instructions <b>S13</b> stores appropriate tools and equipment for the task <b>S12</b> completes the first line maintenance if required	<b>K9</b> Justifies their choice of equipment and tools over alternative choices to meet the task requirements Gives reasons for undertaking equipment/tool checks in compliance with manufacturers guidance and company procedures/policies
<b>Housekeeping</b> <b>S14</b>	<b>S14</b> Maintains housekeeping; keeps work area tidy as they go, segregates and disposes of waste in line with company policy	

Observation KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors
<b>Information/IT</b> <b>S18 S19 S20</b>	<b>S18</b> Provides verbal information required for the task; information is suitable for the audience <b>S20</b> records accurate and full information required for the task <b>S19</b> uses technical terminology accurately and appropriately Uses appropriate IT correctly to support the task	<b>S18</b> Explains how and why they would adapt the communication when presented with a different audience
<b>Takes responsibility</b> <b>B2</b>	<b>B2</b> Takes responsibility to complete the tasks, for example completes action within limits of authority without direction; asks for help where required	<b>B2</b> Identifies how effective their actions have been and where improvements to practice could be made to inform similar tasks in the future
<b>Demonstrate professionalism</b> <b>B3</b>	<b>B3</b> Behaves professionally, for example, presents positive and ethical image of	

Observation KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors
	self and company – work attire worn correctly, polite and respectful	
<b>Clean water process operative option</b>		
<b>Clean water – samples</b> <b>K20</b> <b>S21</b>	<b>S21</b> Uses correct sample method, sample point and collection vessel <b>K20</b> knows how to processes sample in line with company requirements, for example applies test, records result and disposes of sample correctly, or labels, stores and sends sample for testing <b>K20</b> Identifies sample requirements in relation to permit and consent parameters	<b>K20</b> Identifies and explains the reasons why errors can arise in testing, for example sample volume, reagent and time and how they mitigate against errors <b>K20</b> Explains the need to follow permit and consent parameters Identifies adverse trends and takes relevant action

Observation KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors
<b>Clean water – process</b> <b>K10</b> <b>S4 S6 S7 S15 S22 S23</b>	<b>S4</b> Reads and interprets information/data <b>S6</b> Undertakes sensory analysis to correctly determine operating variables <b>S7</b> uses measuring equipment <b>S15</b> Prepares and uses chemicals in line with manufacturer's/company's instructions, ensuring safe use <b>S23</b> Applies appropriate clean water treatment process in line with company instructions to maintain/address operational performance/parameters within given tolerances <b>S22</b> Operates (adjusts) clean water treatment work assets <b>K10</b> ability to follow company instructions to maintain/address operational	<b>K10</b> Identifies opportunities for process efficiencies to reduce the costs of water treatment and/or to optimise performance <b>K10</b> Explains consequences of process optimisation on upstream and/or downstream processes

Observation KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors
	performance/parameters within given limits	
<b>Waste water process operative option</b>		
<b>Waste water – samples</b> <b>K31</b> <b>S24</b>	<b>S24</b> Uses correct sample method, sample point and collection vessel and processes sample <b>K31</b> Ability to follow company requirements; for example, applies test, records result and disposes of sample correctly, or labels, stores and sends sample for testing <b>K31</b> Identifies sample requirements in relation to permit and consent parameters	

Observation KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors
<b>Waste water – process</b> <b>K10</b> <b>S4 S6 S7 S15 S25 S26</b>	<b>S4</b> Reads and interprets information/data <b>S6</b> Undertakes sensory analysis to correctly determine operating variables <b>S7</b> Uses measuring equipment <b>S15</b> Prepares and uses chemicals in line with manufacturer's/company's instructions, ensuring safe use <b>S26</b> Applies appropriate waste water treatment process in line with company instructions to maintain/address operational performance/parameters within given tolerances <b>S25</b> Operates (adjusts) waste water treatment work assets <b>K10</b> Ability to follow company instructions to maintain/address operational	

Observation KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and eight out of 12 of the following distinction descriptors
	performance/parameters within given limits	

## Component 2: Interview based on a portfolio of evidence

A Fail will be awarded if an apprentice has not achieved **all** the Pass descriptors.

To gain a Pass, an apprentice must successfully achieve **all** the descriptors for each KSB, as shown below.

To achieve a Distinction an apprentice must achieve all the pass descriptors and four out of six of the following distinction descriptors.

Interview KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and four out of six of the following distinction descriptors
<b>Water process operative role K2</b>	<b>K2</b> Describes the water process operative role, position in structure, limits of authority; escalation procedures	<b>K2</b> Explains the impact of their role on the wider water process operation
<b>Chemicals: delivery and storage K12</b>	<b>K12</b> Outlines delivery and storage requirements – delivery permits, storage requirements, tank limits and interceptor levels for a given water process chemical	<b>K12</b> Explains why it is necessary to follow delivery and storage requirements



Interview KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and four out of six of the following distinction descriptors
<b>Identifying trends/Fault finding</b> <b>K11</b> <b>S5 S8</b>	<b>K11</b> Knows and describes how to apply fault-finding techniques <b>S5</b> Identifies a decline trend in process performance <b>S8</b> Describes how to apply a fault-finding technique to find the cause	<b>K11</b> Explains the action they took to resolve the fault, justifying the option taken
<b>Stock</b> <b>S16 S17 .</b>	<b>S16</b> Describes how they audit and request chemical and consumables stock; identifying factors that they take into account <b>S17</b> Describes how they check chemical deliveries for quality and content	<b>S16</b> Explains how process performance may influence stock usage and how they would manage stock levels
<b>Team player</b> <b>B4</b>	<b>B4</b> Describes being a team player in the workplace, outlining the situation and the role they played	

Interview KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and four out of six of the following distinction descriptors
<b>Customer focus B5</b>	<b>B5</b> Describes being customer focused, outlining the situation and the approach they applied	
<b>Clean water process operative option</b>		
<b>Clean water-operating parameters K15</b>	<b>K15</b> Describes the impact of weather and the failure of an operating parameter on the treatment process	<b>K15</b> Explains the impact of the weather or failure of an operating parameter on downstream and/or upstream processes
<b>Clean water-treatment work assets and equipment K16 K17</b>	<b>K16</b> Identifies the purpose of a given clean water asset <b>K17</b> Describes the consequences of asset failure on clean water process	<b>K17</b> Explains the consequences of that failure on the water treatment works
<b>Waste water process operative option</b>		
<b>Waste water-operating parameters K26</b>	<b>K26</b> Describes the impact of weather and the failure of an operating parameter on the treatment process	<b>K26</b> Explains the impact of the weather or failure of an operating parameter on downstream and/or upstream processes

Interview KSBs	Pass Apprentices must meet all of the following pass descriptors	Distinction Apprentices must achieve all the pass descriptors and four out of six of the following distinction descriptors
<b>Waste water-treatment work assets and equipment</b> <b>K27</b> <b>K28</b>	<b>K27</b> Identifies the purpose of a given waste water asset <b>K28</b> Describes the consequences of asset failure on waste water process	<b>K28</b> Explains the consequences of that failure on the water treatment works

### Component 3: Multiple-choice Test

The following grade boundaries apply to the knowledge assessment:

Grade	Minimum mark	Maximum mark
Fail	0	27
Pass	28	40

### Overall grading

The apprenticeship will be graded fail, pass or distinction. The final grade will be determined by collective performance in the three assessment components.

In order to gain a pass, an apprentice must achieve a minimum of a pass in each EPA component. A pass represents full competence against the standard. To achieve a distinction grade, an apprentice must achieve a distinction in both the observation with questions and interview components.

The overall grade for the WPO Standard is based on the grades in individual components as follows:

Observation with questions	Interview based on a portfolio of evidence	Multiple-choice test	Overall grading
Fail in any component			Fail
Pass	Pass	Pass	Pass
Distinction	Pass	Pass	Pass
Pass	Distinction	Pass	Pass
Distinction	Distinction	Pass	Distinction

## Section 4: Resits and retakes

Apprentices who fail one or more EPA components can re-sit or re-take the failed component at the 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, but a re-take does. Apprentices should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and Energy & Environment Awards agree the timescale for a re-sit or re-take. A re-sit is typically taken within two 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 four months of the EPA outcome notification. All assessment methods must be taken within a six-month period, otherwise the entire EPA will need to be re-sat/re-taken

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

An apprentice will get a maximum EPA grade of pass for a re-sit or re-take.

Energy & Environment Awards resit and re-take policy can be found at:

<https://energyenvironmentawards.co.uk/policies-and-fees/>

## Section 5: Practical Guidance

### Water Process Operative Practical Observation and Planning Form

#### Purpose

Energy & Environment Awards provide an optional Practical task(s) review service to assist with planning for all employers/training providers with apprentices registered on this standard. To access the service, see Appendix D, Acronym Supporting Documents 'Level # Acronym Practical Observation and Planning Form.'

The purpose of the review service is to provide support in ensuring that the practical task(s), test facilities, necessary equipment, tools and examination conditions are in place to allow the practical task(s) to take place. The review helps ensure the proposed practical task(s) are sufficiently complex to allow the apprentice to demonstrate the required knowledge, skills and behaviours against the relevant elements of Acronym specification. Details of the relevant elements are included in Section 2 of the Specification.

Tasks should be designed to allow variation to be introduced, reducing predictability. Practical observation must be conducted in real working environments.

The employer/training provider must ensure:

- the practical observation enables the assessment of core and specific knowledge, skills and behaviours in a real working environment
- it makes use of existing test facilities, which will be familiar to the apprentice and therefore allow them to perform at their best
- the equipment and tools are available

The employer/training provider must ensure that the practical task(s) is developed to allow the independent assessor to observe the apprentice synoptically demonstrate core and specific KSBs.

#### Submitting the form to Energy & Environment Awards

The employer/training provider should complete and submit the 'Level 2 WPO Practical Observation with Planning Form' to Energy & Environment Awards Service Delivery Team for approval 1 month before the Observation. The form should be

EEA Level 2 End-point Assessment for Water Process Operative (Clean Water Process; Waste Water Process) Specification v4.0

accompanied by photographs and/or video(s) of the plant, machinery, equipment areas, including practical tasks/briefs which the apprentice will be working on.

### Energy & Environment Awards Review Process

Once the approval form has been received the review process will be conducted by Energy & Environment Awards. The outcomes will be shared with the employer/training provider no later than 5 working days following the review.

#### **Please be aware:**

- Practical task/briefs review does not guarantee that the apprentice will pass the practical task
- No health and safety risk assessment has been carried out by Energy & Environment Awards
- Energy & Environment Awards review does not remove any of the training provider obligations to ensure full coverage of the standard, and full compliance with relevant legislation
- Energy & Environment Awards review is based only on information supplied and is not a guarantee that the practical tasks/briefs, selected plant/machinery/equipment on the day of the practical will be sufficient for an EPA practical task
- The information provided in this Level 2 WPO Practical Observation and Planning Form must not be shared with the apprentice

### Preparing for the Observation with Questions

Where possible, the employer/training provider should provide the apprentice with the opportunity to carry out a practice observation as close to the real assessment described in Section 2 of the specification (Component 1).

The employer/training provider should prepare a practical task similar to (but not identical to) the tasks being used for the live assessment. A suitable person should be chosen to play the part of the assessor.

A template is provided to help ensure that the activities assessed during the practical observation will give complete coverage of the standard. See Appendix F, WPO Supporting Documents 'Practice Observation with Questions Template.'

EEA Level 2 End-point Assessment for Water Process Operative (Clean Water Process; Waste Water Process) Specification v4.0

## Preparing for the Interview

A practice interview should take place between the apprentice and the person acting the role of an assessor. The apprentice should draw on evidence from their portfolio during the discussion.

## Guidance on Portfolio of Evidence

The portfolio is not assessed. It serves the following purpose:

- Provides the opportunity to demonstrate the core and specific KSBs required across the standard
- The assessor reviews the portfolio before the interview to help focus and contextualise their questions
- A carefully prepared mapped portfolio supports the apprentice during the interview

## Quality vs Quantity

The apprentice should be supported in selecting and mapping evidence for their portfolio in the mapping document. They must gather evidence on the full range of KSBs required by the standard and be assessed on particular tasks or procedures or items of equipment during their practical observation.

The portfolio must be sufficient to evidence the apprentice can apply the KSBs required in a variety of tasks.

In theory one comprehensive job-write up could cover all the required KSBs. In practice, this is more likely to be in several job write-ups plus a few smaller pieces of evidence targeting specific elements of the standard.

Choose the best pieces of evidence that have been mapped for each KSB covered by the interview based on the portfolio. An independent assessor will look for one suitable piece of evidence for each KSB. To be confident of meeting the standard, apprentices should aim to have two pieces of evidence mapped to each KSB.

Progress review documents should also be included.



## What to include in the Portfolio?

The portfolio evidence:

- must contain a mapping document where evidence is mapped against the KSBs. A template has been produced to help the apprentices with collecting and mapping their evidence. A copy of the template is included. See Appendix D, WPO Supporting Documents 'Portfolio Mapping Document.'
- must contain **at least one piece of quality evidence relating to each KSB**. This piece of quality evidence must demonstrate the KSBs as outlined in Section 2 of this Specification which will be assessed by the interview based on the portfolio
- must include evidence that **covers all KSBs** required, and this would normally come from evidence relating to **at least 5 holistic jobs**
- **written accounts of activities** that have been completed and referenced against the knowledge, skills and behaviours supported by appropriate photographic evidence and work products, for example work instructions, safety documentation, company policies and procedures as appropriate to the activities
- **progress review documentation** - reviews which should be completed and recorded to determine progression towards competence across the entire occupational Standard
- will be available, during the interview, allowing the apprentice to refer to it
- must contain demonstrations of work carried out over the apprentice's on programme period
- where practicable this should include:
  - photographs
  - images
  - diagrams
  - job descriptions and witness evidence/testimony
  - situations that have been difficult and challenging, and how these have been overcome e.g. equipment breakdown which has results in a change in working practice while still adhering to company procedures
  - any employer contributions must focus on direct observation of evidence (e.g. review/witness statements) of competence rather than opinions

The above is not a definitive list. The apprentice can include other relevant evidence sources. The portfolio must not contain any methods of self-assessment.

Evidence must be:

- produced by the apprentice (authentic)
- relevant to the standard (K, S or B) that it is mapped to
- produced during the time the apprentice is carrying out their on-programme training

### What can the apprentice do?

The apprentice should:

- be familiar with the structure of their portfolio
- know the KSBs covered by the interview
- know the grading criteria
- ensure there is evidence to cover every KSB in the interview
- practise mapping evidence and completing the evidence mapping grid

### The role of the employer/training provider

Employer/training providers are expected to support the apprentice in preparing their portfolio by:

- clarifying responsibility for supporting the apprentice to select and map evidence for the portfolio, including employer coaches/mentors where applicable
- advising on which pieces of evidence to select to ensure that when looked at as a whole, they provide coverage of all the required elements of the standard assessed in the interview
- supporting the mapping of evidence and production of a mapping document
- authenticating evidence as valid
- signing off the portfolio
- submitting the portfolio to Energy & Environment Awards as part of Gateway

### What to expect in the practice interview?

The practice interview will be based on the portfolio which will provide the apprentice with the opportunity to practice discussing their KSBs gained throughout their on-

programme and by referring to the evidence from their portfolio using the portfolio mapping document. A suitable person should be chosen to play the part of the assessor.

A practice interview based on the portfolio template is provided for use to prepare the appropriate questions to ask and to record the apprentices' performance. See Appendix G, WPO Supporting Documents 'Practice Interview Template.'

As part of the practice exercise, apprentices should have access to their portfolio to support their responses.

## Preparing for the Multiple-choice Test

While on-programme, the employer and/or training provider should brief the apprentice on the areas to be assessed by the multiple-choice test, as detailed in Section 2 in this specification. It is good practice to identify the areas within the learning programme where the relevant knowledge is delivered, ensuring that apprentices are aware that elements of these might come up in the test.

The multiple-choice test is aligned to the standard rather than a specific job role that the apprentice may be doing. The questions have been written to reflect the Water Process Operative role as a whole and not focussed on specific plant, machinery, or employer-specific processes.

In readiness for end-point assessment, the apprentice should complete a practice multiple-choice test. This should be undertaken in advance of the live multiple-choice test, with enough time to mark the test, and provide feedback to the apprentices. See Appendix C, WPO Supporting Documents 'Practice Knowledge Tests.'

For maximum effect, ensure the test is taken in exam conditions similar to those that will be experienced in a live test.

## Section 6: Authenticity and security of apprentice work

The apprentices must be advised by their training provider and employer that copying of any work (whether it is from another apprentice or from internal, external documents or source) and presenting it as their own will be deemed as malpractice and will lead to their work being disqualified. Apprentices must not share their work or allow any person to copy their work as this is not allowed and would also be deemed as malpractice.

In signing off the portfolio, training providers and employers must be satisfied that the evidence in the portfolio is:

- **adequate:** evidence must cover all relevant KSBs within the assessment plan. Adequate does not mean a large quantity of evidence. The evidence should focus on quality rather than quantity
- **authentic:** apprentices must be able to confirm and talk about the evidence that they submit with the independent assessor, appointed by Energy & Environment Awards. It is vitally important apprentices only submit evidence relating to them
- **appropriate:** all evidence must be relevant to the KSBs assessed during the interview

**recent and up to date:** all evidence must be linked to KSBs must be recent and current which demonstrate the apprentice's competence. The independent assessors, appointed by Energy & Environment Awards will assess current competencies, and the apprentice must map the evidence to demonstrate the relevant work to the KSB. Apprentices must gather the evidence during their on-programme training

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