ENERGY & ENVIRONMENT AWARDS

Skills for a greener world

EEA Level 2 End-point Assessment for Drainage Network Operative

Specification

QAN 610/6032/X
ST1348 V1.0

Specification for

EEA Level 2 End-point Assessment for Drainage Network Operative

QAN 610/6032/X

Updates to this Specification

Since the first publication of Energy & Environment Awards Drainage Network Operative Specification DNO, the following updates have been made.

Version	Date first published	Section updated	Page(s)
v2.0	August 2025	Rebranded	All
v1.1	December 2024	Updates to wording to reflect gateway readiness and EPA Portfolio Template	4, 25, 53 & 54
v1.0	October 2024	First published	All

Section 1: At a Glance EPA Summary

Qualification name	EEA Level 2 End-point Assessment for Drainage Network Operative
Ofqual qualification number	610/6032/X
Standard reference	ST1348
Assessment plan	V1.0
Standard title	Drainage Network Operative
Level	2
Gateway pre-requisites submitted to Energy & Environment Awards	Apprentice has: • achieved English and mathematics qualifications in line with the apprenticeship funding rules • compiled and submitted an EPA Portfolio Template which the question and answer session will be based on
On-programme duration	Typically 18 months
Gateway readiness	Mandatory requirements: • employer or training provider must confirm the apprentice is ready to take EPA • apprentice must achieve English and mathematics in line with the apprenticeship funding rules • must compile and submit an EPA portfolio, which the question and answer session will be based on

	• submit any policies and procedures as requested by Energy & Environment Awards To confirm the Apprentice has met all Gateway pre-requisites, employer must complete, sign and submit the Gateway Eligibility Form (GER) form to Energy & Environment Awards. See Appendix B, DNO Supporting Documents 'Gateway Eligibility Form.'
End-point assessment duration	Typically 3 months after the Gateway
End-point assessment methods and their order	• Observation with questions • Question and answer session - based on an EPA portfolio • Multiple-choice test The assessment methods can be delivered in any order.
End-point assessment methods and component grading	Observation with questions: Fail or Pass Question and answer session - based on an EPA portfolio: 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, DNO Supporting Documents

Objective

The purpose of the Drainage Network Operative (DNO) 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 DNO end-point assessment requirements successfully and has been certified they could take on the following job roles:

- Drainage operative
- Jetting operative
- Rehab engineer (isolated patch repair and relining)
- Sewerage maintenance operative
- Waste water network operative

Gateway Readiness

Gateway takes place before the EPA can start. The employer and training provider will review their apprentice's knowledge, skills and behaviours to see if they have met the minimum requirements of the apprenticeship set out in the apprenticeship standard and are ready to take the assessment. Only apprentices who complete gateway successfully can start EPA. Gateway pre-requisites are listed in the summary table above. The Gateway Eligibility Form must be completed see Appendix B, DNO Supporting Documents.

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 completing their normal work duties, under normal working conditions. The apprentice will demonstrate the application of the relevant 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.

An independent assessor will ask questions during or after 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.

The following table outlines the procedure for conducting an observation with questions:

Assessors	1 independent assessor, appointed by Energy & Environment Awards.
Observation with questions structure	The total assessment time is 3 hours – the time for questioning is included in the overall assessment time. The independent assessor may observe only one apprentice at any one time, to ensure quality and rigour. The independent assessor will ask questions to assess the level of competence against the grading descriptors. Questioning will take place both during and after work completion. The observation may be split into discrete sections held on the same working day.

	There may be breaks during the observation to allow the apprentice to move from one location to another and for meal/comfort breaks. During these breaks, the clock will be stopped and then restarted to ensure that the assessment duration is not reduced.
Where will the assessment take place?	The observation with questions must be conducted in the apprentice's normal place of work in a suitable area allowing the apprentice to work unhindered. Questioning, after work completion, must take place in a quiet room, free from distractions and influence.
What are the tasks that will be covered?	The apprentice should be observed carrying out the following activities: • fault finding • organising and using resources • using tools and equipment • interpreting maps and plans • recording task information **See pages [11-22] for the full list of KSBs to be covered in the observation with questions.**
Who sets the task(s)?	Energy & Environment Awards will review the employer/training provider planned task or series of tasks which are based on the themes listed above. See Appendix D, DNO Supporting Documents 'Practical Assessment Planning and Approval Form.
What resources can the apprentice use?	The employer/training provider will provide equipment and resources needed for the practical assessment. Equipment and resources needed for the observation must be: • the plant, machinery, equipment and PPE required for the job • in good and safe working condition

	Relevant work instructions/manuals must be available in hard copy or electronically.
How many questions will the apprentice be asked?	The independent assessor: • will ask at least 3 questions • may ask follow-up questions in order to seek clarification
What will the questions focus on?	Underpinning knowledge and/or skills and behaviours where an opportunity to observe them has not occurred.
Grading	Fail or Pass

Observation with Questions Knowledge, Skills and Behaviours (KSBs) Coverage

The observation with questions covers:

Observation with questions Theme: Health, safety, and environment	Amplification and Guidance (where required)
K21: Sustainability and efficient use of resources. Recycling, reuse and safe disposal of waste.	Apprentices should be able to: • explain employer's recycling, reuse and safe disposal of waste procedures • identify recyclable and reusable materials commonly found in drainage network operations • describe methods to minimise water wastage during operations • identify hazardous materials and outline procedures for their safe disposal • explain the importance of safe waste disposal to prevent environmental contamination, in line with of relevant regulations and compliance requirements
S18: Apply sustainability principles.	Apprentices should be able to demonstrate: • methods to minimise resource consumption, including water, energy, and materials

Observation with questions Theme: Health, safety, and environment	Amplification and Guidance (where required)
S17: Follow procedures in line with environmental regulations, standards, and guidance. Segregate resources for reuse, recycling and disposal.	Apprentices should be able to demonstrate: • the process of segregating reusable materials from waste • preparation of materials for reuse, ensuring they meet safety and quality standards • following correct procedures for the handling and safe disposal of different types of waste
B2: Consider the impact on the environment when using resources and carrying out work.	Examples of typical behaviours include: • establishing potential sources of pollution in drainage operations and demonstrate methods to prevent contamination • maintaining accurate records of environmental monitoring activities • reporting any environmental incidents or non-compliance promptly and take corrective actions
S11: Apply safety practices and techniques. Signage, lighting and guarding.	Signing, Lighting, and Guarding: • Signing such as warning signs, directional signs, and informational signs

Observation with questions Theme: Health, safety, and environment	Amplification and Guidance (where required)
	• Lighting requirements especially during low visibility conditions such as nighttime or bad weather, to ensure the safety of both workers and the public • Guarding such as barriers, cones, and other protective measures to guard the work area and prevent unauthorized access Apprentices should be able to demonstrate: • the correct placement and use of signage, barriers, fencing, and other guarding equipment to ensure safety for workers and the public • undertaking inspection and maintenance of signing, lighting and guarding equipment, replacing or repairing as necessary
B4: Put health and safety first for self and colleagues.	Prioritise the well-being and safety of individuals above all other considerations in the workplace, e.g. • risk management • training • use of safety equipment such as Personal Protective Equipment (PPE), safety devices • emergency preparedness • reporting and communication: incident reporting, open communication

Observation with questions Theme: Health, safety, and environment	Amplification and Guidance (where required)
	• continuous improvement: providing feedback on safety practices

Observation with questions Theme: Fault finding and problem solving	Amplification and Guidance (where required)
K2: Common faults and issues in drainage. Fault-finding techniques. **S1:** Apply fault-finding techniques in the drainage system. **S3:** Identify and resolve common issues in the drainage system.	**Common Faults:** • Blockages • Leaks • Corrosion • Root ingress • Structural damage **Causes and signs of drainage issues:** • Fats, oils, food debris, hair and roots • Fractures, cracks, and collapsed pipes **Symptoms of drainage issues:** • Slow draining water • Bad odours emanating from drains

Observation with questions Theme: Fault finding and problem solving	Amplification and Guidance (where required)
	• Visible flooding • Unusual noises from drainage systems **Fault-finding techniques** and when to use them: • **Visual Inspection**: conduct thorough visual inspections of accessible drainage components • **CCTV Drain Surveys**: to inspect the interior of drainage pipes to identify blockages, structural damage, and root ingress • **Dye Testing**: to trace the flow and identify leaks or blockages Apprentices should be able to demonstrate: • the steps taken to resolve faults and any recommendations for future prevention
S5: Identify, organise and use resources to complete tasks.	**Identify and organise resources:** • including materials, tools, equipment, and personnel • assess availability and suitability of resources • use checklists and inventories **Use resources:** • use of sustainable and renewable resources wherever possible

Observation with questions Theme: Fault finding and problem solving	Amplification and Guidance (where required)
	• clear communication and coordination among team members to optimise resource use • monitor the use of resources throughout task to ensure they are being used effectively
K3: Tools and equipment used in the drainage industry, for example use of hydrant standpipes and jetting equipment. Purpose and operation. How to use manufacturer's instructions and manuals. **S9:** Use drainage operative tools and equipment, including jetting equipment.	**Tools and equipment purpose:** • hydrant standpipes: to access water from hydrants • jetting equipment and high-pressure water jetting tools: for cleaning and unblocking drains • drain rods: to manually clear blockages in pipes • CCTV inspection cameras: to inspect the interior of drainage pipes and identify issues • manhole lifting keys: for safely lifting and accessing manhole covers **Tools and equipment operation:** • hydrant standpipes: connect to a hydrant, ensuring a secure and leak-free connection. control water flow using the valve on the standpipe • jetting equipment: set up the jetting machine, connect hoses, and adjust pressure settings

Observation with questions Theme: Fault finding and problem solving	Amplification and Guidance (where required)
	• drain rods: assemble rods to the required length, insert into the pipe, and rotate to dislodge blockages • CCTV inspection cameras: insert the camera into the pipe, navigate through the system and monitor the video feedback to identify problems **Manufacturer's instructions and manuals**: • e.g. instructions for setup, safety warnings, operation, and troubleshooting • ensure safe and correct use of tools and equipment • maintain equipment in good working condition
K7: Asset maps and plans and how to use them. Sewerage systems and cable avoidance. **S16:** Interpret asset maps and plans and update where appropriate.	**Understanding and interpreting asset maps and plans:** • the purpose of asset maps and plans in managing drainage and sewerage systems • the types of information typically included in these maps, such as locations, sizes, materials, and conditions of pipes and drains • how to read and interpret asset maps and plans including key symbols to plan routine maintenance and inspections • how to use asset maps to identify the locations of underground utilities and plan remedial work

Observation with questions Theme: Fault finding and problem solving	Amplification and Guidance (where required)
	• how to record changes and updates to asset maps based on new information or completed work • how to maintain accurate records of updates made to asset maps **Sewerage Systems:** • main components including pipes, manholes, and treatment facilities • function of each component and how they work together to manage wastewater **Cable Avoidance:** • risks associated with striking underground cables during excavation work • importance of cable avoidance to ensure safety and prevent service disruptions • different types of cable locating devices, such as CAT (Cable Avoidance Tool) and Genny (Signal Generator) and the different modes of operation for these devices, including power, radio, and induction modes

Observation with questions Theme: Fault finding and problem solving	Amplification and Guidance (where required)
	• outline how to perform a thorough scan of a work area to detect and avoid underground cables
K4: Standard operating procedures (SOP). **S6:** Follow standard operating procedures (SOP).	Apprentices should be able to demonstrate: • following SOP in daily tasks • understanding the purpose and importance of SOPs in ensuring consistent and safe operations • understanding the key components of a SOP, including scope, responsibilities, procedures, and documentation • understanding how SOPs contribute to quality control, efficiency, and compliance with regulation
S7: Work in accordance with water and environment protection regulations, standards and guidance.	Apprentices should ensure work is carried out in compliance with water and environment protection regulations
K19: Quality assurance requirements and procedures. Procedures for confirming blockage removal.	**Quality assurance requirements and procedures:** • follow the Standard Operating Procedures (SOPs) to confirm blockage removal **Procedures used to confirm blockage removal**:

Observation with questions Theme: Fault finding and problem solving	Amplification and Guidance (where required)
S23: Follow quality assurance procedures to confirm that the blockage has been removed.	• initial assessment: use of tools such as CCTV cameras and drain rods to inspect the affected area to identify the location and cause of the blockage • removal: techniques for removing blockages, including manual removal, jetting, and mechanical methods. The appropriate use of each technique based on the type and severity of the blockage • inspection: methods to confirm blockage has been fully removed such as visual inspection, flow testing and CCTV inspection • documentation and reporting: documentation required to maintain accurate records of the blockage removal process. Reporting of issues encountered, and the steps taken to resolve them
S12: Conduct housekeeping for example, tidy work area.	**Housekeeping:** • all tools and equipment are cleaned and stored properly after use • work area organised to ensure easy access to tools and materials • labelled storage bins and shelves to keep items organized and reduce clutter • walkways and workspaces are free from obstructions and hazards

Observation with questions Theme: Fault finding and problem solving	Amplification and Guidance (where required)
	• appropriate signage to indicate areas that require special attention or caution
B5: Take ownership of given work.	Take responsibility for the tasks assigned: • accountability: accept responsibility, follow through • commitment to quality: attention to detail, continuous improvement • ownership of team goals: contribute to collective success

Observation with questions Theme: Communication	Amplification and Guidance (where required)
K13: Verbal communication techniques. Giving and receiving information, for example to customers, colleagues and stakeholders. **S13:** Communicate with others verbally, for example with colleagues, customers and stakeholders.	**Verbal communication techniques:** • communicating clearly • how and when it may be necessary to communicate with colleagues, manager, supervisors, customers, external stakeholders • using appropriate terminology for their audience such as: colleagues, manager, supervisors, customers, external stakeholders • ensuring they have been understood

Observation with questions Theme: Documentation	Amplification and Guidance (where required)
K17: Documentation requirements. **S15:** Record task information – paper based or electronic. For example, job sheets, equipment service records, test results, handover documents and manufacturers' documentation, work sheets, checklists, waste environmental records and any legal reporting requirements.	**Different types of documentation**: • maintenance logs, incident reports, and customer service records **Record task information:** • importance of accurate documentation for legal compliance, operational efficiency, and historical reference • completion of correct documentation for the tasks undertaken in line with company procedures and regulatory requirements

Observation with Questions Roles and Responsibilities

Role	Responsibility
Independent Assessor	Explain, to the apprentice, the format and timescales of the observation with questions before it starts. Conduct and assess the observation. Invigilate and supervise the apprentice during tests and in breaks during the observation. Record and report assessment outcome decisions for each apprentice, following instructions and using assessment recording documentation provided by Energy & Environment Awards.
Employer/Training Provider	The training provider must liaise effectively with the employer to ensure the apprentice is prepared for the observation with questions. Provide the venue for the observation, which must be suitably equipped to allow the apprentice to attempt all aspects of the observation. Provide all necessary tools and equipment for the apprentice. Ensure the apprentice has access to the resources used on a daily basis. Use Energy & Environment Awards observation with questions review service to review fitness for purpose of the assessment task.
Energy & Environment Awards	Energy & Environment Awards will review the arrangements for the observation planned by the employer/training provider. Arrange for the observation to take place, in consultation with the employer/training provider and independent assessor.

Component 2: Question and Answer Session based on an EPA Portfolio

Overview

The question and answer session is based on the apprentice's EPA portfolio and focuses on holistic evidence covering the KSBs relating to the question and answer session. The apprentices may refer to their portfolio to help answer questions.

The EPA portfolio is **not assessed**. The EPA Portfolio Template is designed to assist the apprentice during their question and answer session. The apprentice should use the EPA Portfolio Template to collate evidence in preparation for their question and answer session. It should only contain evidence compiled throughout the apprenticeship. The EPA Portfolio Template will be issued to employers/training providers by their Energy & Environment Awards Service Delivery Coordinator and must be completed and submitted to Energy & Environment Awards at Gateway.

The following table outlines the procedure for conducting a question and answer session:

Assessors	1 independent assessor approved by Energy & Environment Awards
Question and answer session - based on an EPA portfolio structure	**Number of questions:** A minimum of 6 open questions. Additional follow up questions are allowed, to seek clarification. **Location:** A quiet room on the employer's premises or a suitable venue for example a training provider's premises. **Time:** 1 hour The apprentice may choose to end the question and answer session early. The apprentice must be confident they have demonstrated competence against the assessment requirements. The independent assessor will ensure the apprentice is fully aware of all the assessment requirements and 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 or EPAO cannot suggest or choose to end any assessment method early (unless in an emergency). **The question and answer session will be:** • face to face or remote, as agreed • recorded in writing using the question and answer session record form provided by Energy & Environment Awards • video recorded using relevant technology, such as Microsoft Teams or an audio recording device • conducted under examination conditions The apprentice must have access to their EPA portfolio throughout the question and answer session. **EPA Portfolio:** • The apprentice's Manager/Mentor must support the completion of the EPA Portfolio Template tasks in accordance with company policy and procedures • Although questioning will cover ALL the elements of the DNO standard (listed below in this section of the Specification), they will prioritise areas according to what they see in the EPA portfolio • For further guidance on the EPA portfolio refer to Section 5 Practical Guidance on EPA Portfolio
What topics will be covered?	**For further details refer to 'Knowledge, Skills and Behaviours (KSBs) coverage below pages [27-33].**
When will the portfolio of evidence be referred to?	The EPA portfolio: • will be reviewed by the independent assessor before the question and answer session • can be referred to by the apprentice to illustrate their answers **Note:** the EPA portfolio is **not** directly assessed.
Grading	Fail, Pass or Distinction

Question and Answer Session – based on an EPA Portfolio Knowledge, Skills and Behaviours (KSBs) Coverage

The question and answer session covers:

Task: Working with others	Amplification and guidance (where required)
Team Working	
K20: Team working principles. **S22:** Apply team working principles **B6:** Team-focus to meet work goals.	Apprentices should be able to demonstrate an understanding of t**eam working principles** such as: • difference between a group and a team • team objectives and how individual members contribute • defined roles and responsibilities • support and collaboration • diversity and inclusion • adaptability **work goals** such as: • performance targets, response times • Service Level Agreements In their EPA portfolio, apprentices should include examples of where team working principles have been applied. For example: • where specific objectives or targets have been set and the role, they played in meeting these

Task: Working with others	Amplification and guidance (where required)
	• where they have worked as part of a team, using individual's strengths, and supports colleagues
Equality, diversity and inclusion	
K16: Equality Act. Equality, diversity, and inclusion in the workplace. **S19:** Follow equity, diversity and inclusion policies. **B3:** Support an inclusive workplace for example, respectful of different views.	Apprentices should be able to demonstrate an understanding of: • what equality, diversity and inclusion means • the basic principles of the Equality Act e.g. protected characteristics • how equality, diversity and inclusion is considered in the workplace, e.g. company policies In their EPA portfolio, apprentices should include examples of where equality, diversity and inclusion has been considered in their work. For example: • fair treatment • open communication about diversity and inclusion issues • understanding and respecting different cultural backgrounds and perspectives

Task: Communication	Amplification and guidance (where required)
K6: Reporting and escalation procedures. **S4:** Escalate issues in line with responsibilities.	Apprentices should be able to demonstrate an understanding of: • the reporting and escalation process for issues • issues on the drainage network such as blockages, flooding, sewer damage, illegal connections, private-side issues • other issues e.g. accidents, vulnerable customers, customer complaints, health and safety concerns, contractor issues In their EPA portfolio, apprentices should include examples of where they have come across issues that require escalation. They should be able to demonstrate the procedures they followed to escalate issues outside of their remit.

K18: Information technology and digital: email, collaboration packages, equipment digital interfaces, management information systems, virtual learning platforms, work sharing platforms. General Data Protection Regulation (GDPR). Cyber security.
S21: Use information technology and digital systems. Comply with GDPR and cyber security.
	Apprentices should be able to demonstrate an understanding of:
	• email and how to use it in a work context
	• collaborative tools e.g. team group chats such as WhatsApp or Slack
	• MIS (management information systems), virtual learning platforms and work sharing platforms and how they are used
	• General Data Protection Regulations (GDPR) and their responsibilities to
	  ○ handle data securely, accurately, and with confidentiality
	  ○ report breaches promptly

Task: Communication	Amplification and guidance (where required)
	○ respect the data rights of individuals ○ follow company guidelines on data processing and third-party service use • basic cyber security principles e.g. keeping passwords safe, and their company's cyber security procedures In their EPA portfolio, apprentices should include examples of where they have: • used ICT effectively while working on the drainage network e.g. CCTV monitoring and recording equipment • complied with their responsibilities under General Data Protection Regulations (GDPR) • applied basic cyber security principles and their company's cyber security procedures
K22: Written communication techniques. **S14:** Communicate in writing with others for example, internal and external customers, colleagues, and managers.	Apprentices should be able to demonstrate an understanding of: • how written communication is used in their role, e.g. work allocation and reporting of completed work In their EPA portfolio, apprentices should include examples of where they have:

Task: Communication	Amplification and guidance (where required)
	• communicated with others clearly, professionally and accurately using their employer's systems e.g. email, job closure notes on Toughbook and ordering equipment

Task: Drainage Network operations	Amplification and guidance (where required)
K11: Sewer sensors and remote monitoring technology. **S2:** Use equipment including CCTV, push rods and sewer sensors. **S8:** Clean and maintain tools and equipment, for example check oil levels and apply grease.	Apprentices should be able to demonstrate an understanding of: • the parameters measured by the main types of sewer sensors, i.e. level sensors and flow sensors on both sewers and CSO's • the uses of remote monitoring technology on the drainage network e.g. load balancing, detection of blockages, CSO spill reporting In their EPA portfolio, apprentices should include examples of where they have: • used sewer sensors • used remote monitoring technology • selected the correct equipment, including CCTV and push rods, for common activities carried out on the drainage network e.g. sewer inspections, clearing blockages, investigating cross

Task: Drainage Network operations	Amplification and guidance (where required)
	connections of surface and foul services, flooding, malodour investigations • safely and correctly use equipment according to company SOP • cleaned and maintained the tools and equipment they work with
S10: Fill jetting unit saddle tank.	Apprentices should be able to demonstrate they: • hold a National Water Hygiene Card if accessing the public water network through a hydrant • understand the importance of using the correct method and equipment In their EPA portfolio, apprentices should include examples of where they have: • used the correct water hygiene procedures when accessing a hydrant
K5: Types of incidents - accidents, near misses and mitigation methods.	Apprentices should be able to demonstrate an understanding of: • different types of accidents which can occur while working on the drainage network • the differentiation between an accident and a near miss

Task: Drainage Network operations	Amplification and guidance (where required)
	• common mitigation and control methods used to reduce the risk of harm from accidents which can occur while working on the drainage network

Task: Development	Amplification and guidance (where required)
S20: Carry out and record learning and development activities. **B1:** Seek learning and development opportunities.	In their EPA portfolio, apprentices should include examples of where they have: • completed and updated a Continuous Development (CPD) Plan including short, medium and long-terms goals to improve their own professional practice

Question and Answer Session – based on an EPA Portfolio 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. Review the apprentice's EPA portfolio prior to the question and answer session. In the event of an apprentice requesting to end the question and answer session early, the assessor must ensure the apprentice is fully aware of all the assessment requirements for the session. Requests must be documented in line with instructions provided by Energy & Environment Awards.
Employer/Training Provider	Ensure that the EPA portfolio has been submitted to Energy & Environment Awards at Gateway. The question and answer session must be scheduled with Energy & Environment Awards for a date and time which allow the apprentice to be well prepared. Ensure the apprentice has access to their EPA portfolio before and on the day of the question and answer session.

Role	Responsibility
	Provide a quiet location for the question and answer session, free from distractions and influence.
Energy & Environment Awards	Arrange for the question and answer session to take place, in consultation with the employer/training provider and independent assessor. Provide the assessor with the apprentice's EPA portfolio of evidence at least 2 weeks before the assessment. Develop and produce a question bank in line with the EPA plan.

Component 3: Multiple-choice Test

Overview

The multiple-choice test is a computer-based test which consists of 25 multiple-choice questions. Paper-based tests are available on request.

Apprentices have 60 minutes to complete the test. It consists of 25 multiple-choice questions.

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

The Pass mark is 19 correct answers.

For this paper:

- access to the internet or intranet is NOT allowed
- apprentices CANNOT refer to reference books or material whilst taking the test

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

Multiple-choice Test Coverage

The multiple-choice test consists of 25 knowledge questions.
The table below lists each of the knowledge elements, assessed in the multiple-choice test. Amplification and Guidance can be found in the table below:

Number of Questions	Knowledge	Amplification and Guidance (where required)
2 – 4	**K1:** The drainage industry. Stakeholders and responsibilities for drainage network assets.	Drainage industry stakeholders and their responsibilities: • Highways authorities • Environment Agency (EA) • Local authorities • Health and Safety Executive (HSE) • Water Companies • Property owners • Emergency Services • OFWAT
2 – 4	**K8:** Site preparations for safe systems of work, including setting up chamber barriers and appropriate signage, in accordance with the New Roads and Street Works Act (NRSWA) when working on the highway.	• NRSWA qualification requirements • Setting up chamber barriers • Setting up appropriate signage

Number of Questions	Knowledge	Amplification and Guidance (where required)
		• Principles of traffic management control and conforming to the red book requirements
2 – 4	**K9:** Hydrant regulations.	• Regulations associated with the use of hydrants • Risks to the network • Permitted use and authorisations required
2 – 4	**K10:** Principles to differentiate between the requirements of an open-cut repair and a repair using no-dig technology.	• Open-cut repair techniques – dig technology, e.g. mechanical and hand • No-dig repair techniques e.g. pipe bursting, slip lining, cured in place pipe • Understanding of when to use each type of repair
4 - 6	**K12:** Awareness of health and safety regulations: Health and Safety at Work Act – responsibilities; Lone working; Provision and Use of Work Equipment Regulations (PUWER); Risk assessments; Situational awareness; Types of hazards; Personal Protective Equipment (PPE); Working in	• Health and safety at Work Act – responsibilities • Lone working • Provision and Use of Work Equipment Regulations (PUWER) • Risk assessments • Situational awareness • Types of hazards • Personal Protective Equipment (PPE)

Number of Questions	Knowledge	Amplification and Guidance (where required)
	confined spaces; Working at Height; New Roads and Street Works Act (NRSWA); manual handling; industry codes of practice.	• Working in confined spaces • Working at Height • New Roads and Street Works Act (NRSWA) • Manual handling • Industry codes of practice, such as Water Jetting Association code of practice, CCTV use • Hygiene procedures • Asbestos pipes • First Aid
3 - 5	**K14:** Awareness of the relevant regulations and how they apply to their role: Water Environment Regulations; Environmental Protection Act and environmental signage.	• Water Environment Regulations • Environmental Protection Act • Environmental signage • An awareness and recognition of what constitutes a pollution and poses a risk to the Environment
3 - 5	**K15:** Environmental impacts that can arise from drainage operations activities and escaped or discharged sewage. Types of	• Environmental impact from drainage operations activity • Environmental impact from escaped or discharged sewage • Types of pollution and control measures:

Number of Questions	Knowledge	Amplification and Guidance (where required)
	pollution and control measures: noise, odours, spills, and waste.	○ noise ○ odours ○ spills ○ waste • Flood prevention • Reporting of pollution incidents to Environment Agency (EA) • Reporting and escalation procedures • Correct disposal of wastes generated on site • Public health implications

Multiple-choice Test Roles and Responsibilities

Role	Responsibility
Invigilator	Is typically provided by the employer or training provider. Attend induction training as directed by Energy & Environment Awards. Not invigilate an assessment, solely, if they have delivered the assessed content to the apprentice. Invigilate and supervise the apprentice during tests and in breaks during assessment methods to prevent malpractice in line with Energy & Environment Awards invigilation procedures.
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

The apprentice must demonstrate KSBs in an integrated way.

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.

Observation with questions KSBs	To achieve a Pass the apprentice must achieve **ALL** of the following:
Health, safety, and environment K21 S11 S17 S18 B2 B4	Considers the principles of sustainability and the impact on the environment when using resources and carrying out work by segregating resources for reuse, recycling and safe disposal in line with regulations, standards and guidance and company procedures. (K21, S17, S18, B2) Puts health and safety first for self and colleagues when applying safety practices and techniques including signage, lighting and guarding, in line with task requirements. (S11, B4)

Observation with questions KSBs	To achieve a Pass the apprentice must achieve **ALL** of the following:
Fault finding and problem solving K2 K3 K4 K7 K19 S1 S3 S5 S6 S7 S9 S12 S16 S23 B5	Takes ownership of their work when applying fault-finding techniques to identify and resolve common faults and issues in the drainage system in line with task requirements. (K2, S1, S3, B5) Follows standard operating procedures and works in compliance with water and environment protection regulations, standards and guidance to complete the task. (K4, S6, S7) Follows quality assurance procedures to confirm blockage removal as appropriate for the work being undertaken. (K19, S23) Uses drainage operative tools and equipment, including jetting equipment, in line with operating instructions or manufacturers' guidelines. (K3, S9) Interprets asset maps and plans for the sewerage systems to support cable avoidance and for task completion, and updates maps and plans if necessary. (K7, S16) Identifies, organises and uses resources for tasks, and conducts housekeeping in line with company procedures. (S5, S12)

Observation with questions KSBs	To achieve a Pass the apprentice must achieve **ALL** of the following:
Communication K13 S13	Uses verbal communication techniques to give and receive information in a way that is suitable for the context and to support task completion. (K13, S13)
Documentation K17 S15	Records information on paper or electronically in line with task requirements. (K17, S15)

Component 2: Question and Answer Session based on an EPA Portfolio

The apprentice must demonstrate KSBs in an integrated way.

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 pass descriptors.

To gain a Distinction, an apprentice must successfully achieve **all** the pass descriptors and **all** the distinction descriptors.

Task: Working with others	To achieve a Pass the apprentice must successfully achieve all of the pass descriptors	To achieve a Distinction the apprentice must successfully achieve all of the pass descriptors and all of the distinction descriptors.
Teamworking K20 S22 B6	Describes how they apply team working principles to meet their team's work goals. (K20, S22, B6)	Explains the impact teamwork has on work activity completion within the company. (K20, S22)
Equality, diversity and inclusion K16 S19 B3	Describes how they follow organisational policies to ensure their work supports the principles of equality, diversity, and inclusion. (K16, S19, B3)	

Task: Communication	To achieve a Pass the apprentice must successfully achieve all of the pass descriptors	To achieve a Distinction the apprentice must successfully achieve all of the pass descriptors and all of the distinction descriptors.
Communication K6 K18 K22 S4 S14 S21	Outlines how they escalate issues or concerns in line with their responsibilities. (K6, S4) Describes how they communicate with others using written techniques, in a way that is suitable for the context and supports task completion. (K22, S14) Describes how they use information technology and information systems and comply with GDPR and cyber security requirements to support work tasks. (K18, S21)	Explains the importance of reporting and escalating issues in terms of wider team operations. (K6, S4)

Task: Drainage network operations	To achieve a Pass the apprentice must successfully achieve all of the pass descriptors	To achieve a Distinction the apprentice must successfully achieve all of the pass descriptors and all of the distinction descriptors.
Drainage network operations K5 K11 S2 S8 S10	Explains how they use sewer sensors, remote monitoring technology, CCTV and push rods to identify issues within the drainage network. (K11, S2) Describes the kinds of accidents, incidents and near misses that are likely to occur when working on drainage network assets and how to reduce incidents. (K5) Explains how to fill the jetting unit saddle tank in line with requirements. (S10) Explains how they clean and maintain tools and equipment, for example checking oil levels and applying grease,	Justifies their choice of using CCTV or push rods to identify issues within the drainage network. (S2) Explains the importance of filling the jetting tank using the correct methods and equipment. (S10) Explains the importance of cleaning and maintaining tools and equipment in drainage network operations. (S8)

Task: Drainage network operations	To achieve a Pass the apprentice must successfully achieve all of the pass descriptors	To achieve a Distinction the apprentice must successfully achieve all of the pass descriptors and all of the distinction descriptors.
	in line with operating instructions or manufacturers' guidelines. (S8)	

Task: Development	To achieve a Pass the apprentice must successfully achieve all of the pass descriptors	To achieve a Distinction the apprentice must successfully achieve all of the pass descriptors and all of the distinction descriptors.
Development S20 B1	Describes learning and development they have completed and recorded to support competence in their role. (S20, B1)	

Component 3: Multiple-choice Test

The following grade boundaries apply to the multiple-choice test:

Grade	Minimum mark	Maximum mark
Fail	0	18
Pass	19	25

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 question and answer session component.

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

Observation with questions	Question and answer session based on an EPA portfolio	Multiple-choice test	Overall grading
Fail in any component			Fail
Pass	Pass	Pass	Pass
Pass	Distinction	Pass	Distinction

Section 4: Resits and Retakes

Apprentices who fail one or more EPA component 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. Failed EPA components must be re-sat or re-taken within 6 months of the EPA outcome notification, otherwise the EPA will need to be re-sat or re-taken in full.

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 one or more assessment methods, unless Energy & Environment Awards determines there are exceptional circumstances.

Energy & Environment Awards resit and re-take policy can be found at:
https://energyenvironmentawards.co.uk/policies-and-fees/

Section 5: Practical Guidance

Drainage Network Operative Observation with Questions Planning and Approval Form

Purpose

Energy & Environment Awards must approve employers' observation with questions assessment. The purpose of the approval is to provide Energy & Environment Awards with assurance the observation will be conducted in line with the DNO assessment plan. The approval must take place before the first observation with questions assessment is carried out. To access the service, see Appendix D, DNO Supporting Documents 'Level 2 DNO Observation with Questions Planning and Approval Form.'

Submitting the form to Energy & Environment Awards

To obtain approval, employers must complete the Level 2 DNO Observation with Questions Planning and Approval Form. This must be submitted to Energy & Environment Awards Service Delivery Team for approval at least 1 month before Gateway.

Energy & Environment Awards Approval Process

Once the Observation with Questions Planning and Approval Form has been received the approval process will be conducted by Energy & Environment Awards. The outcomes will be shared with the employer/training provider no later than 10 working days following the receipt of the relevant documents.

The employer/training provider must ensure:

- the task(s) being observed is suitable and sufficient and is to be carried out at a suitable premises. Site access for the assessor and any specific requirements must be advised in advance
- all equipment and resources are suitable for the task, in good safe working condition and certification where applicable

Please be aware:

- Observation with questions approval does not guarantee the apprentice will pass the assessment
- No health and safety risk assessment has been carried out by Energy & Environment Awards
- Energy & Environment Awards approval 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 approval is based only on information supplied and is not a guarantee that the observation tasks/briefs, selected plant/machinery/equipment on the day of the observation will be sufficient for the observation with questions
- The information provided in the Level 2 DNO Observation with Questions Planning and Approval 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 with questions 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 practice observation with questions will give complete coverage of the standard. See Appendix E, DNO Supporting Documents 'Practice Observation with Questions Form.'

Preparing for the Question and Answer Session based on an EPA Portfolio

A practice question and answer session – based on an EPA portfolio should take place between the apprentice and the person acting the role of an assessor. The apprentice should draw on evidence from their EPA portfolio during the discussion.

Guidance on EPA Portfolio

Throughout the on-programme part of their apprenticeship, the apprentice must compile an EPA portfolio to support them in the question and answer session. The question and answer session will draw on the evidence contained in the EPA portfolio.

The EPA portfolio should reflect their individual experiences, and the activities carried out during this period and meet the requirements outlined in the assessment plan.

A completed EPA portfolio is one of the Gateway requirements.

The EPA portfolio is **not assessed**. It serves the following purposes:

- It provides the opportunity for each apprentice to provide examples of the knowledge, skills and behaviours that will be assessed in the question and answer session
- A carefully prepared EPA portfolio will support the apprentice during the question and answer session
- It allows the assessor to review the EPA portfolio before the question and answer session to help focus and contextualise the questions the apprentice will be asked

The EPA portfolio is a record of how apprentices demonstrated the knowledge, skills and behaviours that are assessed in the question and answer session. Apprentices will have access to their EPA portfolio during the question and answer session. When the employer/training provider registers their apprentices with Energy & Environment Awards they will have access to the EPA Portfolio Template.

The role of the employer/training provider

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

- providing clear instruction and deadlines to allow the apprentice to plan and compile their portfolio in preparation for the Gateway meeting
- advising on which pieces of evidence to select
- authenticating evidence as valid
- signing off the EPA portfolio

- submitting the portfolio to Energy & Environment Awards as part of Gateway requirements.

What to expect in the practice question and answer session?

The practice question and answer session will be based on the EPA 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 their responses to the tasks and associated evidence. A suitable person should be chosen to play the part of the assessor.

A practice question and answer session template is provided for use to prepare the appropriate questions to ask and to record the apprentices' performance. See Appendix F, DNO Supporting Documents 'Practice Question and Answer Session based on an EPA Portfolio Form'.

As part of the practice exercise, apprentices should have access to their EPA 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 Drainage Network 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, DNO Supporting Documents 'Practice multiple-choice test.'

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 question and answer session based on an EPA portfolio
- **recent and up to date**: all evidence must be linked to the tasks in the EPA portfolio template. The evidence must be recent and current which demonstrate the apprentice's competence. The independent assessors, appointed by Energy & Environment Awards, will assess current competencies. Apprentices must gather evidence during their on-programme training.