Level 2 End-point Assessment Gas Network Operative

EPA Specification Section 7 – Supporting Documents and Guidance

- Gateway Eligibility Report
- Practice Multiple Choice test, with Answer Scheme
- Practical Assessment with Guidance
- Practical Assessment Planning Form

Contacts

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

Help Desk email: enquiries@euias.co.uk

Help Desk telephone: 0121 713 8310

EUIAS End-point Assessment for Gas Network Operative

Gateway Eligibility Report

(Standard Version: ST0204 version 1.1; Assessment Plan Version: ST0204/AP03)

Apprentice's details

Apprentice's name:	Apprentice's job title:
Name of Employer:	Name of Training provider:
Employer representatives present:	Training provider representatives present:
Apprenticeship start date:	Apprenticeship on-programme end date:
Gateway meeting date:	
Has the apprentice taken any part of the end-point assessment for this apprenticeship standard with any other End Point Assessment Organisation?	Y / N
If "Yes" please give details:	

Eligibility requirements:

The apprentice must confirm their achievement of the following:

Eligibility requirement	Achieved by the apprentice? Y/N	Evidence (scans of certificates **MUST** be included)
Achieved English Level 1		
Achieved mathematics Level 1		
Apprentice must attempt level 2 tests in maths and English, if required to do so, as per ESFA guidance		
Achieved Network Construction Operations (Gas) Level 1 as a minimum		

Gateway Eligibility Declaration

The apprentice, the employer and the training provider **must** sign this form to confirm that they understand and agree to the following:

1. The apprentice has completed the required on-programme elements of the apprenticeship and is ready for end-point assessment with EUIAS
2. The apprentice will only submit their own work as part of end-point assessment
3. All parties agree that end-point assessment evidence may be recorded and stored by EUIAS for quality assurance purposes
4. The apprentice has been on-programme for a minimum duration of 365 days
5. The apprentice has achieved English and mathematics at level 1
6. The apprentice must attempt level 2 tests in maths and English, if required to do so as per ESFA guidance
7. The apprentice has achieved the Network Construction Operations (Gas) level 1 qualification
8. The apprentice has achieved the mathematics and English requirements as detailed in this document
9. The apprentice, if successful, gives permission for EUIAS to request the apprenticeship certificate from the ESFA who issue the certificate on behalf of the Secretary of State
10. The apprentice has been directed to the EUIAS Appeals Policy and Complaints Policy
11. The employer/training provider has given the EUIAS at least three months' notice of requesting this EPA for this apprentice
12. If the Gateway Eligibility Report is not completed in full, meeting all requirements, and submitted to EUIAS, the end-point assessment cannot take place

Signed on behalf of the employer (print name):	Signature:	Date:
Signed on behalf of the training provider (print name):	Signature:	Date:
Apprentice's name (print):	Signature:	Date:

EUIAS use only:	
EUIAS Sign off:	
Comments/actions:	

End-point Assessment
Multiple Choice Test Practice Assessment

Please write clearly in block capitals below	
Company name	
First name (s)	
Last name (s)	
Date of birth	
Apprentice number	
Apprentice signature	
Date of knowledge test	

Level: **2**
Standard: **Gas Network Operative**
Duration: **1 hour 15 minutes**

Materials

For this paper you must have:

- Pens
- Calculators and reference documents are not required

Instructions

- Use black or blue ink or black ball-point pen
- Fill in the boxes at the top of this page
- Answer **all** questions
- There are questions, possible answers as well as a column for you to mark your answer
- Mark your answer with an ☒ against the possible answer you think is correct- if you wish to change your answer please put a line through ~~☒~~ and re-select with another ☒
- Only one answer per question allowed. Answers which do not follow the rules of selection will be disallowed. This may impact on the grade awarded
- Do all rough work in this answer book, spare paper is provided in this answer booklet and can be used but **MUST NOT** be removed
- Additional spare paper will not be provided
- All questions are closed book

Sample:

London is the capital of….

Example Question		
London is the capital of…		
Possible answers		**Answer**
a)	Wales	~~X~~
b)	Scotland	
c)	Northern Ireland	
d)	England	X

Information

- The marks for questions are 1 mark each
- There are 40 questions in total
- All questions should be attempted

Advice

- You are not allowed to leave the examination room for the duration of the assessment
- Do not spend too long on one question
- Read all questions thoroughly before starting your examination
- Mobile phones and SMART watches must not be taken into the examination room. The examination must be conducted under examination conditions i.e. you may not speak to other candidates, if you have a problem raise your hand and the invigilator will attend
- Cheating: you will be asked to leave the examination room and will be classified an automatic fail and referred to your employer

Do not turn over the page or commence the knowledge test until the invigilator instructs you to

You may use this page to work out on.

This page must not be removed.

Question 1		
Which organisation produces standards for gas service laying and main laying activities?		
Possible answers		**Answer**
a)	The Institution of Gas Engineers and Managers (IGEM)	
b)	Energy & Utility Skills (EU Skills)	
c)	The Health and Safety Executive (HSE)	
d)	Gas Safe	

Question 2		
At what pressure does low pressure mains operate?		
Possible answers		**Answer**
a)	Up to 75 mbar	
b)	At 75 mbar	
c)	Over 75 mbar	
d)	Over 75 mbar when controlled by a regulator	

Question 3		
Which of the following actions is a requirement of the Gas Act 1986?		
Possible answers		**Answer**
a)	Companies transporting gas must be licensed	
b)	Equipment used on the gas network must be regularly maintained	
c)	Gas pressures in a low pressure network must not exceed 75 mbar	
d)	Metallic pipework within the gas supply network must be replaced with polyethylene	

Question 4		
Which ONE of the following statements is correct about safety?		
Possible answers		**Answer**
a)	The only potential harm from electricity is burns	
b)	An individual's behaviour is a major contributory factor	
c)	Hazardous substances are the most common causes of injury	
d)	Personal protective equipment (PPE) will protect individuals from any level of harm	

Question 5		
Which statement correctly reflects the requirements of the Health and Safety at Work Act 1974?		
Possible answers		**Answer**
a)	Employers have duties towards employees and members of the public	
b)	Employers have duties towards employees and their families	
c)	Employees have duties to undertake work to the productivity standards specified by their employer	
d)	Employers have duties to report all incidents and accidents to the Health and Safety Executive	

Question 6		
According to legislation, non-compliance with a health and safety regulation is:		
Possible answers		**Answer**
a)	not an offence	
b)	a civil offence	
c)	a criminal offence	
d)	a disciplinary offence	

Question 7		
The main risk from asbestos comes from:		
Possible answers		**Answer**
a)	breathing in fibres	
b)	fibres on the skin	
c)	fibres in the eyes	
d)	fibres on clothing	

Question 8		
According to the Control of Substances Hazardous to Health (COSHH) Regulations, any work involving substances which are hazardous to health must be:		
Possible answers		**Answer**
a)	assessed and any necessary precautions communicated to the workforce	
b)	monitored and reported to the Health and Safety Executive (HSE)	
c)	undertaken wearing specialist personal protective equipment	
d)	undertaken with a minimum of two people present	

Question 9		
What action must be taken before using any equipment?		
Possible answers		**Answer**
a)	Ensure the equipment is suitable for the job	
b)	Any damaged equipment is reported before it is used	
c)	All necessary guards are available within the tool box	
d)	Check that someone on-site is familiar with the controls	

Question 10		
How often should lifting equipment be inspected?		
Possible answers		**Answer**
a)	Every 6 months	
b)	Every 12 months	
c)	Every 24 months	
d)	Every 36 months	

Question 11		
A fire extinguisher coded with a black colour panel contains:		
Possible answers		**Answer**
a)	foam	
b)	water	
c)	dry powder	
d)	carbon dioxide	

Question 12		
Identify the statement that is applicable to first aid kits?		
Possible answers		**Answer**
a)	The content of a first aid kit should be checked annually	
b)	All the contents of a first aid kits will have expiry dates	
c)	Plasters, dressings, and bandages should be sterile	
d)	The law requires first aid kits to meet British Standard (BS) 8599	

Question 13		
For the purpose of spill control, what is meant by a ‘spill’?		
Possible answers		**Answer**
a)	Any unintentional release of liquid over 1 litre	
b)	Any release of solids, fluids, or gas into the environment	
c)	Any release, deliberate or accidental from a contained source	
d)	The deliberate or unintentional release of fluid on to the ground	

Question 14		
Which statement reflects the ‘precautionary area’ that must be observed when working close to trees?		
Possible answers		**Answer**
a)	The precautionary area only applies to trees with a Tree Preservation Order	
b)	The precautionary area is calculated by drawing a circle around the tree with diameter four times the circumference of the trunk	
c)	The precautionary area is anywhere where tree roots are found underneath the span of the tree canopy	
d)	The precautionary area is a protected area around a tree in which no excavation should take place	

Question 15		
Water pumped from an excavation should be discharged:		
Possible answers		**Answer**
a)	on to any grassed area where available	
b)	into a storm water drain where available	
c)	into a foul sewer where available	
d)	on to a public grass verge where available	

Question 16		
Minimising waste:		
Possible answers		**Answer**
a)	reduces costs and helps to protect the environment	
b)	ensures that materials are always available	
c)	is a legal requirement for setting and achieving targets	
d)	is monitored by The Health and Safety Executive (HSE)	

Question 17		
An example of a hazardous waste is:		
Possible answers		**Answer**
a)	soft plastics	
b)	cured foam-off kits	
c)	spent anaerobic tubes	
d)	part-used anaerobic sealant cartridges	

Question 18		
Which statement applies to the storage of waste in depot yards?		
Possible answers		**Answer**
a)	Waste containers must be labelled	
b)	Waste must be segregated and stored in containers sited on unmade ground	
c)	Waste containers must have built-in drainage to permit rainwater to escape	
d)	Waste bins located in company depots may be used to dispose of domestic waste	

Question 19		
When working in the public highway, high visibility clothing must be worn and:		
Possible answers		**Answer**
a)	can be taken off during periods of hot weather	
b)	may be required when working in a workspace	
c)	may be required when setting out the signs and barriers	
d)	must be correctly fastened, be clean and in a usable condition	

Question 20		
An operative is setting out a site on the highway. What is the first sign to be seen by approaching traffic?		
Possible answers		**Answer**
a)	Road narrows ahead	
b)	Road works ahead	
c)	Traffic control ahead	
d)	A directional arrow	

Question 21		
The angle of the exit taper at the end of the works site should be:		
Possible answers		**Answer**
a)	30°	
b)	45°	
c)	70°	
d)	90°	

Question 22		
The purpose of the safety zone around street works is to:		
Possible answers		**Answer**
a)	separate the work area from vehicular traffic	
b)	separate pedestrians from the work area	
c)	protect the workforce from traffic and to protect traffic from the work	
d)	Protect pedestrians and traffic from the works being undertaken	

Question 23		
The “Red Book” (Safety at Street Works and Road Works) states that the basic safety zone is made up of:		
Possible answers		**Answer**
a)	The area covered by the lead-in taper through to the exit taper	
b)	The work area and the space given for safe passage of pedestrians	
c)	The longways clearance and the sideways clearance	
d)	The lead-in taper, the longways clearance, the sideways clearance, and the exit taper	

Question 24		
What is the typical low alarm level for methane on a personal atmosphere monitor?		
Possible answers		**Answer**
a)	20 ppm (parts per million)	
b)	2% LEL (lower explosive limit)	
c)	20% LEL	
d)	50% LEL	

Question 25		
What is the maximum concentration of gas that is permitted above or below a light switch so that the switch can be used?		
Possible answers		**Answer**
a)	2% gas in air	
b)	20% of the upper explosive limit	
c)	70% of the lower explosive limit	
d)	100% of the lower explosive limit	

Question 26		
For natural gas, a reading of 100% LEL (lower explosive limit) is equivalent to what GIA (gas in air) reading?		
Possible answers		**Answer**
a)	1% GIA	
b)	5% GIA	
c)	10% GIA	
d)	15% GIA	

Question 27		
For the purpose of investigating gas escapes, which ONE of the following are included within the definition of 'ducts'?		
Possible answers		**Answer**
a)	Abandoned underground plant and surface water drainage systems	
b)	Live gas and water mains, foul sewers, and surface water drainage	
c)	Only conduits or channels that contain utility apparatus	
d)	Valve boxes and valve chambers	

Question 28		
What actions must be taken after a property has been evacuated?		
Possible answers		**Answer**
a)	Check gas readings in the property at 15 minute intervals and implement further control measures if the situation becomes worse	
b)	Continually re-assess site conditions and take appropriate action if the situations becomes worse	
c)	Monitor gas readings and allow customers to reoccupy the property when readings fall below 20% LEL	
d)	Regularly re-assess site conditions and relax control measures if gas readings in the property reduce	

Question 29		
Work is being carried out to locate the source of an external gas escape. Under what conditions is it permissible for the site to be left unattended?		
Possible answers		**Answer**
a)	When gas is no longer present within 750 mm of a building	
b)	When gas readings in ducts have fallen to below 70% LEL	
c)	When escaping gas can no longer be seen, heard, or felt	
d)	When arrangements have been made for another team to attend	

Question 30		
When can a team leader release a First Call Operative (FCO) from the site of a gas escape?		
Possible answers		**Answer**
a)	After properties have been evacuated	
b)	When the FCO is needed somewhere else	
c)	When the supply has been turned off at the ECV (Emergency Control Valve)	
d)	When it has been confirmed that properties are not affected by escaping gas	

Question 31		
What must be checked with a Volt Stick?		
Possible answers		**Answer**
a)	Internal pipework	
b)	Metallic mains pipework	
c)	Metallic service pipework	
d)	All exposed metallic surfaces	

Question 32		
When should plant avoidance equipment be used?		
Possible answers		**Answer**
a)	Once the excavation has started	
b)	Before completion of works on site	
c)	Before any excavation work is undertaken	
d)	When there are visible signs of plant in the ground	

Question 33		
On metallic pipework where will equipotential bonding wiring normally be located?		
Possible answers		**Answer**
a)	Under the kitchen sink	
b)	Within 600 mm of pipework entering the property	
c)	On metallic pipework within 300 mm of the gas meter	
d)	Immediately adjacent to the ECV (Emergency Control Valve)	

Question 34		
Select the action that the Health and Safety Executive (HSE) would take if an Inspector finds a company is breaking health and safety laws?		
Possible answers		**Answer**
a)	Fine the company	
b)	Fine the individual and managers	
c)	Issue an improvement notice	
d)	Take disciplinary action	

Question 35		
Who is protected by the discrimination legislation?		
Possible answers		**Answer**
a)	Everyone	
b)	Only adults	
c)	Only females	
d)	Only black and minority ethnic groups	

Question 36		
How many measurements should ideally be recorded to accurately pinpoint mains locations?		
Possible answers		**Answer**
a)	No limit	
b)	1	
c)	2	
d)	3	

Question 37		
When should the depth of cover be recorded for a new main?		
Possible answers		**Answer**
a)	When the main is deep	
b)	When the main is shallow	
c)	When the main has been laid under sewer pipes	
d)	At every point where measurements are taken for the main	

Question 38		
Where should a service information label be attached?		
Possible answers		**Answer**
a)	On the pipework on the inlet side of the ECV (Emergency Control Valve)	
b)	On pipework on the outlet side of the ECV (Emergency Control Valve)	
c)	On the handle of the ECV (Emergency Control Valve)	
d)	Anywhere within 500 mm of the ECV (Emergency Control Valve)	

Question 39		
Identify the statement that reflects the correct requirements for taking records of any pressure test or gas service.		
Possible answers		**Answer**
a)	It is not necessary to record details of failed tests	
b)	Records must be made immediately after a service has been commissioned	
c)	There are different record requirements depending on whether the service is new, diverted, renewed, or transferred	
d)	Records should include the date of the test, and the times at which the test was applied and removed	

Question 40		
Data recorded on-site for asset record purposes must be:		
Possible answers		**Answer**
a)	accurate	
b)	approximate	
c)	calculated	
d)	estimated	

End of Practice Multiple Choice Test Assessment

Practice Multiple Choice Test

Answer scheme

Question	Answer
1	A
2	A
3	C
4	B
5	A
6	C
7	A
8	A
9	A
10	B
11	D
12	C
13	C
14	B
15	D
16	A
17	D
18	A
19	D
20	B

Question	Answer
21	B
22	C
23	D
24	C
25	C
26	B
27	A
28	B
29	C
30	D
31	D
32	C
33	B
34	C
35	A
36	C
37	D
38	A
39	D
40	A

L2 Gas Network Operative

Practical Assessment with Questioning Guidance

The practical assessment of apprentices need to be assessed for each of the elements of the GNO (Gas Network Operative) standard i.e., Service laying, Main laying, Emergency and Repair.

The practical assessment is to be undertaken in a realistic simulated environment, such as a workshop which must closely relate to their natural working environment. The assessments are **not** to be undertaken on-site. The location used must be suitable for assessment purposes and be sufficiently confidential so that the apprentice is not influenced by others outside of the designated area.

Assessment scenarios, facilities, equipment, and materials necessary for each task are to be provided by the employer.

Task scenarios must cover the topics specified by EUIAS in the assessment criteria for the GNO standard. Any proposed deviation from this **must** be agreed in advance with EUIAS.

If necessary, it is acceptable for tasks to be divided into its individual component parts for assessment purposes. For example, a service laying job may be separately assessed as mains connection, pipe lay and house entry with service termination, but requirements for testing **must** be included.

Easy access to sufficient necessary equipment and materials is to be provided adjacent to the task location so that the apprentice does not need to waste time or lose concentration searching elsewhere. A sufficient range of tools, equipment and materials must be made available for the apprentice to select which to use. Spare parts should be available in case of foreseeable breakage during the assessment (e.g., spare hacksaw blades).

A total of 12 hours is permitted for all the practical assessments, including one hour for questioning. Consequently 11 hours is permitted for completion of all the 'hands on' practical tasks. Additional time is permitted for supervised comfort breaks, lunch breaks and or movement from one location to the next.

The practical assessment with questioning may be split into discrete sections held over a maximum of two working days; however, the practical assessment should **not** be split either side of a weekend. No individual task may be split over different days, so tasks must be completed on the day in which they are started.

It is the responsibility of the employer to ensure that all the tasks specified are included within the assessment scenarios. This will require careful pre-planning and organisation to ensure effective allocation and use of the available time.

The practical assessment specification **must** require the apprentice to:

- **Undertake health and safety and/or risk and waste management:**
  - Complete a risk assessment
  - Set out of signing, lighting and guarding
  - Dispose of waste materials
  - Making the site safe, removing plant and equipment

- **Determine action and/or organize tasks:**
  - Interpret work instructions as defined in the job task sheet
  - Prepare for tasks, including selecting a minimum of six tools and/or equipment, resources, and personal protective equipment (PPE)

- **Check and operate tools and equipment**
- **Locate utility network assets**
- **Excavate**

- **Communicate:**
  - at least one other person for example a co-worker

- **Demonstrate professionalism**

- **Construct, repair, commission, decommission of gas network assets / Test and purge, gas network assets**
  - service laying techniques 16mm – 63mm diameter
  - mains laying techniques - install mains of diameter >90mm
  - complete the installation of gas service pipes from the mains to a property using a variety of techniques. Techniques will include laying services through both 'open cut' and 'insertion' methods, electro-fusion of Polyethylene (PE) pipe of diameter range 16mm to 63mm, mains to service connection for both polyethylene (PE) and metallic mains supply, mains diameters must be a minimum of 90mm PE and 100mm (4") metallic, positioning and connection of service entry points
  - test, purge and commission a new service pipe at both low and medium pressure
  - complete the butt fusion and electro-fusion of PE pipe of diameter range - 90mm to 180mm
  - use both PE and Metallic (Squeeze off and Bag Stop) flow stopping techniques on a pressurised system <75mb
  - connect, test and commission of a new low pressure (LP) PE main of diameter range - 90mm to 180mm utilising at least one metallic to plastic (PECAT adapter) connection
  - decommission of a low pressure (LP) gas main through direct purging methods

- **Demonstrate emergency procedures**
  - use of breathing apparatus
  - apply of gas emergency procedures

Important Note: Although the assessment plan includes for mains in the 90mm to 355mm diameter range, it is **not** expected that the apprentices will need to work on polyethylene (PE) mains exceeding 180mm diameter.

Assessment scenarios should be designed to minimise the need for significant manual handling, including use of the tools, equipment and materials provided. It is **not** envisaged that a second person will be required to support the apprentice with lifting and handling. However, if support is provided, the second person must be a qualified service layer, main layer, or repair operative (as appropriate for the task) and must **not** take an active role in the assessment process or be involved in the on-programme or lead the apprentice in any way.

Throughout the assessment process, the apprentice **must** be overseen at all times, including during break periods, to ensure that there are no external influences on the assessment.

The **Emergency Response** part of the practical task(s) should be assessed one-to-one, but the rest of the practical task(s) could be assessed one-to-two and in the latter case the employer and or training provider must provide a responsible person as described below to invigilate the apprentice at all times when the assessor is assessing the other apprentice. It is possible for an assessor to assess two apprentices at the same time, provided it is possible for the assessment processes to be robust. If two apprentices are being assessed at the same time, they must be working separately on different tasks, and they should **not** be in direct eyeline or in communication with each other and must not influence each other in any way. If apprentices are working in a remote location (e.g., in an adjacent room), then the apprentices **must** be overseen by an invigilator when not under the attention of the assessor. The invigilator does not need to be a qualified assessor, but **must** be a qualified service layer, main layer or repair operative (as appropriate for the task) and must **not** take an active role in the assessment process or have been involved in the delivery of the on-programme and they should **not** lead the apprentice in any way.

An ‘actor’ may be used as part of the scenario for the demonstration of emergency (gas escape) procedures. The person must be utilised to support the assessment process and not interfere with the outcome or lead the apprentice in any way. The person does not need to have any operational gas experience. The independent assessor **must** thoroughly brief this person on their role prior to the start of the assessment.

During the practical assessment the independent assessor **must remain unobstructive** at all times. To maintain demonstrable independence, the independent assessor **must have** no direct connection, any prior involvement or conflict of interest with the apprentice, their employer or training provider, in all instances.

Example activities

- **Service laying assessment activities:**
  - Laying of service using open cut, dead insertion or live insertion
  - Connection of a PE service to a PE main

- Drilling of a metallic main for a service connection
- Connection of a PE service to a metallic main
- Electrofusion of a PE service
- Service termination at an external meter box
- Service termination at an internal meter position
- Pressure test of a service at low pressure and medium pressure
- Purging and commissioning of a service
- Disconnection of a gas meter
- Exchange of an emergency control valve

- **Main laying assessment activities:**
  - Laying of PE main using open cut, dead insertion or live insertion
  - Jointing of a PE main using electrofusion
  - Jointing of a PE main by butt fusion
  - Jointing of PE main to a metallic main using a bolted connection
  - Flow stopping of a PE main using squeeze off
  - Flow stopping of a metallic main by bagging off
  - Pressure test of a main at low pressure
  - Purging and commissioning of a main

- **Repair assessment activities:**
  - Use of breathing apparatus
  - Installation of a repair clamp
  - Joint repair using anaerobics

- **Emergency assessment activities:**
  - Response to a public reported external gas escape
  - Use of gas detection equipment and interpretation of results
  - Prioritisation of actions
  - Recording of data

- **New Low Pressure Main and Make Connection Using Squeeze-Off:**
  - Lay a section of PE main with at least one electrofusion joint. (Joint to include measures to ensure alignment and successful fusion)
  - Pressure test the main to low pressure standards and complete test documentation
  - Install a squeeze-off operation on a section of pressurised low pressure main, ensuring security of supply

- Cut out a section of the existing main and tie in the new section of main
- Purge and commission the new section of main
- Remove squeeze-off equipment

- **Make a Butt Fusion Joint:**
  - Prepare butt fusion equipment for use.
  - Install pipe in the butt fusion machine and prepare ends for jointing
  - Fuse pipe sections together
  - Allow joint to cool
  - Check the bead for quality

- **Lay a New Service from a Low Pressure Metallic Main:**
  - Install drilling equipment on pressurise low pressure metallic main
  - Drill and tap a hole of the correct size and insert a service tee
  - Lay service pipe of the required size
  - Connect the service pipe to an external meter box, terminating with an emergency control valve
  - Pressure test the low pressure service and complete test documentation
  - Connect the service to the service tee
  - Purge and commission the service
  - Check for leakage

- **Public Reported Gas Escape:**
  - Apprentice arrives on site having been given limited information about the report
  - Apprentice introduces him/herself and speaks with customer to obtain more information
  - Apprentice issues customer with safety advice
  - The independent assessor supplies the apprentice with site information throughout the assessment, as appropriate
  - Apprentice undertakes internal monitoring using gas detection equipment, recording information
  - Apprentice applies evacuation criteria as appropriate
  - Apprentice isolates internal installation and applies a tightness test
  - Apprentice undertakes and external site search using gas detection equipment, recoding information
  - Apprentice determines the source of the escape and takes appropriate action

- **Mains Repair:**

- There is gas escaping from a pressurised low pressure metallic main
- Ensure the safety of self and others, and deploy fire extinguishers
- Put on breathing apparatus, conducting the necessary checks for safe operation
- Install a leakage clamp on the main and tighten.
- Check for leakage
- Remove and stow breathing apparatus

Further Guidance

- All the tasks are to be undertaken in a simulated environment
- Apprentices must be assessed individually
- The invigilator must have no direct connection or conflict of interest with the apprentice, their employer or training provider, in all instances
- Independent assessors may only assess one apprentice at any one time. Independent assessor must be technically competent in the work being assessed and be registered and approved by the EUIAS prior to any assessments being scheduled
- Simulations are expected to use compressed air instead of live gas
- The assessor will need to provide realistic 'live gas' gas readings appropriate to the stage of the scenario for the apprentice to determine the next action (e.g., for site search, use of gas detection equipment, purging). The methodology must be made clear to the apprentice in advance
- Assessment scenarios **must not** have been previously used during the on-programme when training apprentices, nor for practice purposes prior to assessment. For on-programme training and practice, alternative scenarios **must** be provided
- Apprentices must not have prior knowledge of the specifics of assessment scenarios
- Each specified assessment task may be undertaken separately. However, assessment scenarios may combine a number of different tasks, but each specified task must be assessed separately
- Independent assessors **must** use the assessment documentation provided by EUIAS for all practical tasks. One record per task for each apprentice is required
- Each of the practical tasks may be treated individually. If an apprentice fails one practical task this does not mean that other tasks are failed. Re-sits of individual tasks is permitted. All practical tasks **must** be passed in order to complete the practical assessment part of the end-point assessment
- All necessary tools, equipment, materials **must** be provided for apprentices at the start of the Task. It is permissible for these resources to be provided in a manner which requires the apprentice to select items to be used, for example the provision of a variety of tools in a toolbox

- Apprentices must be briefed on the requirements of each practical ask prior to the practical task commencing
- Scenarios must be sited in a location where apprentices will not be disturbed or influenced by others outside of the working area
- Apprentices must wear personal protective equipment for the task and assessment location and employ safe working practices throughout. The independent assessor should stop the assessment if unsafe working practices are identified
- Up to 11 hours is permitted for the completion of all practical tasks, plus 1 hour for the questioning which will take place after the practical assessment. Therefore the 9 practical tasks need to be completed within 11 hours. The independent assessor should allocate time appropriately for each practical task to permit this timescale to be achieved
- Tasks need not be undertaken consecutively. All the practical tasks may be spread over 2 days. However, each individual practical ask must be completed before a break is permitted

Examples of possible assessment scenarios:

a) Service laying:
Drill and tap a metallic main, install a service tee, lay a service by dead insertion to an external meter box, apply a pressure test, purge and commission.

b) Mainlaying:
Lay a section of dead main and pressure test, Set up a squeeze off on a pressurised PE main, apply squeeze off, cut out a section and install a tee to connect the new main, purge, release squeeze off, test for leakage.

c) Emergency:
Using a simulated row of properties, respond to a report of an outside smell of gas using information provided by the assessor. Undertake site search. Interpret gas readings. Take action to safeguard life and property. Determine actions required.

d) Repair:
Wearing breathing apparatus, apply a repair clamp over a leaking (pressurised) metallic main. Test for leakage.

The independent assessor will ask questions and follow up with supplementary questions if required to test the apprentices underpinning knowledge and/or skills and behaviours where an opportunity to demonstrate them has not occurred during the practical task(s). Questioning must take place after the practical assessment has been completed, so as not to interrupt the apprentices work and to enable sufficiently deep questioning to take place. The independent assessor **must** ask a minimum of six questions to test related underpinning knowledge and behaviours. Additional follow up questions are allowed, to seek clarification and to make an assessment against the grading descriptors.

Sample questions that the independent assessor may ask to underpin the apprentice's knowledge and/or skills and behaviours during the questioning session:

Question 1: How could you tell if an electrofusion and butt fusion joint was made to the required quality?
Supplementary question: What would you do if the joint was of poor quality?

Question 2: What steps would you take to pressure test a low pressure main?
Supplementary question: How would this differ for a medium pressure main?

Question 3: How would you identify if there was any water inside a gas service pipe?
Supplementary question: Explain how you would remove and dispose of water from a gas service?

Question 4: What are the steps for evacuating a property in the event of a gas escape?
Supplementary question: What are the steps for re-occupation after the escape has been repaired?

Question 5:
Justify why it is important to prioritise health, safety and the environment when you were undertaking work to safeguard life and property.
Supplementary question: Provide 2 examples of how you prioritised health, safety and the environment when you were undertaking work to safeguard life and or property.

Question 6: Describe the different types of joints found on metallic mains
Supplementary question: Explain how you would repair leaks from each type of joint

The independent assessor is required to:

- record the depth and breadth of the apprentice's performance and outcome by using the EUIAS documentation specific to the task
- to record valid evidence from the apprentice performance and **not** to adopt a 'tick box' approach will not be accepted
- question the apprentice immediately after completion of the practical assessment and within the overall 12 hour time allowance
- ask questions on topics identified within the assessment plan, based upon work undertaken during the practical assessment
- questions will typically cover practical topics for which it is not feasible to assess within realistic timescales, or in simulated environments and or which have not been demonstrated through the practical skills assessment
- use open questioning techniques to promote the provision of required responses from apprentices, without leading them in any way
- increase the one-hour time period by 10% which is at the discretion of the independent assessor, to allow the apprentice to complete a task or complete an answer to a question
- proceed without interruption and be held in a confidential location without interference from others outside. Assessors are required to record the depth and breadth of responses to questions provided by the apprentice using the EUIAS documentation supplied for this purpose
- following the completion of the assessment (the practical assessment and the questioning), the independent assessor must apply the guidance provided by the EUIAS to determine the grading appropriate for the apprentice (distinction, pass or fail), based upon the performance of the apprentice as seen by the independent assessor under assessment conditions

- make a grade decision and the grade **must not** be influenced by the previous apprentice's behaviour or performance, nor be influenced by others outside of the assessment process

Important Note: The questioning for the practical assessment is in addition to questioning in the interview which is underpinned by the portfolio.

Note:

- To achieve a pass, grade **all** Pass criteria must be achieved
- To achieve a distinction, grade **all** Pass criteria and Distinction Criteria must be achieved

Template for the practical task planning sheet:

L2 Gas Network Operative - Practice Assessment

Practical Task Planning Form

Apprentice's Full Name		**Date**	
Independent Assessor's Full Name		**Job number**	

Brief task description:
Proposed method and reasoning:
Pipe size – include any calculations required:

Sketch of work to be undertaken	
At the start:	**Upon completion:**

List equipment required:	**List consumables required:**

Apprentice signature		**Date**	
Assessor signature		**Date**	
Once the form is complete proceed with the practical assessment			

L2 Gas Network Operative - Practice Assessment

Example: Completed Practical Task Planning Form – Jobs 1 & 3

Apprentice Name	John Singh	**Date**	**15/06/2021**
Assessor Name	Jinny Sterling	**Job number**	**1**

Brief task description:

Details to be included in this section.

Proposed Lay method and reasoning:

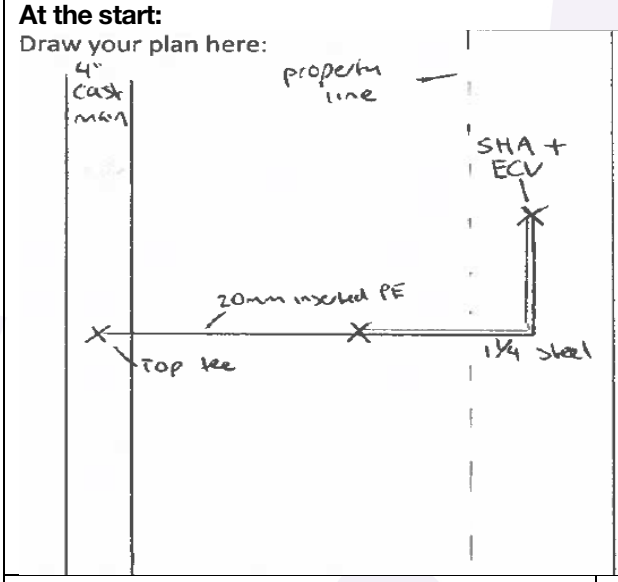
20 mm service off 4” main in preparation for service transfer.

Pipe size – include any calculations required:

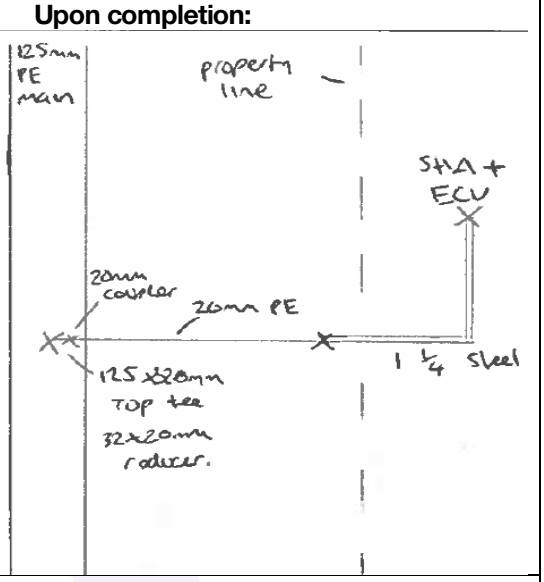
20 mm PE service as per service pressures from SL1.

Sketch of work to be undertaken

At the start:



Upon completion:



List equipment required:

- Volt stick
- 5m 20mm PE
- 1” top tee

List consumables required:

- Jointing command
- LDF
- Annerseal

- Anti-sheer sleeve - Service lead adapter - Red handle ECV - Deburrer - Pipe cutters - T2 pipe grips - Sthlsons - Draw lock tool - Scaper - Pressure gauge - Smooth Jaws - 20 mm coupler - 125 x 320mm top tee - Top tee saddle - Marker pen - Mirror - Fusion box - Land pump	- Blue roll - Nitrate gloves

Apprentice signature	*John Singh*	**Date**	15/06/2021
Independent Assessor signature	*Jinny Sterling*	**Date**	15/06/2021
Once the form is complete proceed with the practical assessment			