

GAS NETWORK OPERATIVE

Details of standard

Occupation summary

This occupation is found in the utilities sector, in the gas transportation industry.

The broad purpose of the occupation is to construct, maintain and repair gas network infrastructure, to provide a reliable supply/service to domestic, commercial and industrial users. Infrastructure for gas transportation includes mains and services operating at below 7bar pressure, including excess flow valves, emergency control valves, pipes, network valves, top tee and encirclement fittings and branch saddles. Operatives ensure the site is safe for work and members of the public, which may include traffic management and control. They complete site excavation and on job completion, restore the site to a safe condition. They use a range of powered equipment, hand tools and plant on-site, for example diggers, rollers and forklifts. Responding to gas network infrastructure emergencies, for example gas escapes, in line with procedures and escalating as appropriate is all part of the role. Recording and reporting on work completed is important, which may include completion of paperwork or computerised records, drawings and providing site photographs. Depending on the work required, they may spend the day at one site or work across a number of sites. Work locations may include new build sites, public highways and domestic, industrial and commercial properties. They are required to work in all weather conditions. They may need to work shifts, standby and unsociable hours.

In their daily work, an employee in this occupation interacts with with colleagues, such as managers, network technicians and engineers, delivery drivers, reinstatement teams and administration staff. They usually work in a small team - typically with one or two other operatives, responsible for their own work, reporting to managers but not under direct supervision. On a site they may also interact with site agents and other trades. They will communicate with clients/customers regarding work that is being undertaken and in some situations the general public. They may also liaise with personnel from statutory authorities, such as the Highways Authority, local authorities and the Environment Agency. When working in emergency situations, they may liaise with emergency services personnel.

An employee in this occupation will be responsible for completing work to the required standard, following procedures, ensuring Health & Safety and regulatory compliance with OFGEM (Office of Gas and Electricity Markets), Institution of Gas Engineers and Managers (IGEM) standards and Environment Agency etc; failure to do so could have serious consequences for self, public health and the environment. They are expected to present a professional image of the company. They are responsible for ensuring their tools and equipment are fit for use and inspected prior to use, correctly stored and maintained. Depending on their level of experience, they may be responsible for leading the team.

Gas network operatives need to be qualified and on the Street Works Register. Employers typically require a driving license, as operatives may be expected to drive to their place of work, using a company vehicle. In addition, some gas network operatives may require a CSCS (Construction Skills Certification Scheme) Card and/or SHEA (Safety, Health and Environmental Awareness) Gas Passport Card. A Disclosure and Barring Service (DBS) check may also be required.

Typical job titles include:

Gas network team leader

Gas repair team leader

Repair & maintenance operative

Servicelayer mainlayer

Occupation duties

DUTY

Duty 1 Prepare and set up site for gas network infrastructure site work, to meet clients'/customers' requirements and priorities, for example, obtain plant, equipment and materials and undertake traffic management and control

Duty 2 Conduct risk assessments including a final risk assessment and comply with method statements for gas network infrastructure work

Duty 3 Check and maintain tools and equipment before and after use in gas network infrastructure work, for example charge batteries, clean equipment, grease machines, re-fuel; and store

Duty 4 Excavate site for gas network infrastructure work

Duty 5 Construct/abandon (not to be used again) gas network infrastructure, for example services and mains

Duty 6 Pressure test gas network infrastructure

Duty 7 Commission/decommission (take off-line) gas network infrastructure

Duty 8 Conduct repairs to gas network infrastructure

KSBS

K1 K2 K6

S2 S3

B1 B2 B3 B4 B5 B6 B7

K1 K2 K3 K9 K13

S1 S4

B1 B3 B4 B5 B6

K2 K3 K5

S9

B1 B5 B6

K1 K2 K3 K4 K7

S4 S6 S13

B1 B2 B3 B4 B5 B6 B7

K1 K2 K3 K8 K10

S2 S4 S7 S11 S12 S13 S15 S16 S18 S19
S22 S23 S24 S26

B1 B2 B3 B4 B5 B6 B8

K2 K3 K8

S2 S4 S25

B1 B2 B3 B4 B5 B6 B7 B8

K1 K2 K3 K8 K12

S2 S4 S26

B1 B2 B3 B4 B5 B6 B7 B8

K1 K2 K3 K4 K8 K10

S2 S4 S7 S11 S12 S17 S19 S21 S22 S23
S24

B1 B2 B3 B4 B5 B6 B7 B8

Duty 9 Isolate gas network infrastructure, for example flow-stopping	K1 K2 K3 K4 K8 S2 S4 S17 S19 B1 B2 B3 B4 B5 B6
Duty 10 Disconnect and remove gas meters from gas services, leaving it safe	K2 K3 K4 K8 K15 S3 S4 S7 S20 B1 B3 B5 B6 B7 B8
Duty 11 Respond to gas network infrastructure emergencies, for example gas escapes, in line with procedures and escalate where appropriate	K1 K2 K3 K9 K11 K12 K13 S4 S11 S12 S27 B1 B2 B3 B4 B5 B6 B7
Duty 12 Restore gas network infrastructure site to a safe condition to meet clients'/customers' requirements, for example backfill, signing and guarding and use of foot-way boards, cones and barriers	K2 K3 K4 K6 K8 S4 S5 S7 B1 B2 B3 B4 B5 B6 B7
Duty 13 Liaise with gas network stakeholders, keeping them informed; for example, explaining to customers' work to be undertaken/taken	K1 K2 K13 K14 K16 S10 B3 B4 B7
Duty 14 Complete gas utility network infrastructure records/documentation (written or digital) associated with activities, for example work sheets, time-sheets, drawings, risk-assessments and safety documentation	K1 K15 K16 S14 B3 B4 B5 B6 B7

KSBs

Knowledge

K1: Utility industry structure and regulatory requirements, including the Gas Act and regulatory surveys

K2: Health and safety standards, regulations and practice, including Health and Safety at Work Act, risk assessments and safe systems of work, permits to work, New Roads and Street Works Act, working in confined spaces, working at heights, Provision and Use of Work Equipment Regulations (PUWER), Control of Substances Hazardous to Health (COSHH), personal protective equipment (PPE), Lifting Operations Lifting Equipment Regulations (LOLER), first aid, manual handling, fire safety, asbestos awareness

K3: Environmental regulatory requirements: Environment Protection Act, disposal of waste and recycling

K4: Principles and processes that underpin the location of utility network assets, including health and safety guidance on avoiding damage to underground utility services

K5: Checks, maintenance, operation and storage requirements for commonly used gas utility network operations equipment and tools, for example utility location equipment/tools, pneumatic gun, hand/power tools – power disc cutter, chain saw, drills

K6: Principles of traffic management and control

K7: Excavation techniques, for example, open cut, moling, vacuum extraction. Trench support for example, proprietary systems, sheeting and mechanical

K8: Procedures for the construction, testing, purging, repair commissioning and decommissioning of gas network assets

K9: Procedures for gas network emergencies

K10: Electrical safety, including equipotential bonding

K11: Emergency services and statutory authorities – local authorities, highway authorities and Environment Agency; who they are, what they do; escalation procedures

K12: Communication techniques – written, verbal; customer service techniques

K13: Reporting channels; limits of authority

K14: Equality & diversity considerations in the workplace

K15: Data – purpose and protection, for example asset records

K16: Information technology, for example to support an accurate audit trail using electronic equipment including handheld and mobile devices

Skills

S1: Identify hazards and implement controls to reduce risks

S2: Interpret work instructions, engineering instructions and determine actions

S3: Identify and organise resources to undertake activities

S4: Comply with workplace health, safety & environmental policy and practice; including use of Personal Protective Equipment (PPE) and safety equipment

S5: Set out signing, lighting and guarding

S6: Excavate holes for utility network services

S7: Monitor and maintain site conditions, including good housekeeping

S8: Identify, locate and avoid utility supply apparatus and sub-structures

S9: Check, maintain, operate and store equipment and tools; report faults if required

S10: Communicate with colleagues and/or stakeholders, for example, statutory agencies and members of the public, customers

S11: Use breathing apparatus

S12: Use gas detection equipment

S13: Carry out trench installation for example, sheeting, lightweight and proprietary systems

S14: Record information, for example job reports, time sheets

S15: Construct new and replacement gas services to internal and external service termination positions using a range of techniques

S16: Carry out squeeze off activities on gas services (low and medium pressure)

S17: Construct new and replacement gas mains using a range of techniques

S18: Carry out flow stopping on gas mains by use of squeeze off and bag stop

S19: Disconnect gas meters

S20: Repair gas assets including valves and fittings using a range of techniques

S21: Join materials by electro-fusion

S22: Join materials by butt fusion processes

S23: Exchange emergency control valve

S24: Test gas network assets at low and medium pressure

S25: Purge, commission and decommission gas network assets

S26: Apply gas network emergency procedures including the analysis of gas readings

S27: Apply water extraction techniques for gas mains and services

Behaviours

B1: Prioritises health, safety and environment when undertaking work to safeguard life and property

B2: Adaptable, for example willing to accept changing priorities and working requirements

B3: Team player, for example keeps others informed, recognises personal and professional limitations and seeks advice when necessary

B4: Professional, for example punctual, trustworthy, polite, courteous, presentable, maintains security of business specific and personal data and assets, takes account of equality and diversity in interactions

B5: Self-motivated, for example manages own time effectively, takes responsibility to complete the job

B6: Pride in work, for example works to agreed quality targets and standards

B7: Customer focus, for example keeps customers informed

B8: Committed to continued professional development

Qualifications

English & Maths

Apprentices without level 1 English and maths will need to achieve this level and apprentices without level 2 English and maths will need to take the tests for this level prior to taking the end-point assessment. For those with an education, health and care plan or a legacy statement, the apprenticeship's English and maths minimum requirement is Entry Level 3. A British Sign Language (BSL) qualification is an alternative to the English qualification for those whose primary language is BSL.

Other mandatory qualifications

Gas Network Construction Operations (Level 1)

Level: 2

Additional details

Occupational Level:

2

Duration (months):

24

Review

This apprenticeship standard will be reviewed after three years

Find an apprenticeship

Version log

VERSION	CHANGE DETAIL	EARLIEST START DATE	LATEST START DATE	LATEST END DATE
1.1	Standard, funding band and end-point assessment plan revised	20/04/2020	Not set	Not set
1.0	Approved for delivery	22/10/2015	19/04/2020	Not set