Standard in development
L2: Drainage network operative

Title of occupation
Drainage network operative

UOS reference number
ST1348

Core and options
No

Level of occupation
Level 2

Route
Engineering and manufacturing

Typical duration of apprenticeship
18 months

Target date for approval
05/06/2023

Resubmission
No

Would your proposed apprenticeship standard replace an existing framework?
No

Does professional recognition exist for the occupation?
Occupation summary

This occupation is found in the utilities sector, in the waste water industry. Drainage network operatives work in both domestic and commercial settings, providing customer service in the provision of sewerage maintenance services, ensuring the health and safety of employees, customers, suppliers, and communities. This is a field-based occupation, working at company and private premises, that includes public highways, to clean, clear and identify defects to maintain private and public drainage systems.

The broad purpose of the occupation is to ensure the serviceability and condition of the sewerage network, providing rapid response to failures in the sewerage network, and investigate causes of the issues. Drainage network operatives ensure the health, safety and welfare of self, other members of the team and the public, while providing excellent customer service to both internal and external customers. This is a field-based occupation, working flexible hours to respond to emergencies, and persons in this occupation typically have a driver's licence. Drainage network operatives use and operate a wide range of plant and equipment to deliver thorough maintenance to sewerage assets in line with operating procedures, ensuring all equipment is used appropriately and maintained.

In their daily work, an employee in this occupation interacts with colleagues, such as managers, engineers, surveyors, building contractors, and other utilities, as well as the public. They may also come into contact with regulatory bodies such as the Environment Agency and Local Councils.

An employee in this occupation will be responsible for ensuring that jobs are completed in line with company procedures, troubleshooting any problems and liaising with technical specialists regarding access and equipment issues. Drainage network operatives enjoy solving problems, are comfortable working in confined spaces and follow and understand safety regulations and instructions. They will also be skilled in using a variety of tools and machinery. Persons in this occupation are good communicators keeping members of the public and work colleagues informed and are confident working alone when required, and within a close team.

Typical job titles

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

Are there any statutory/regulatory or other typical entry requirements?

No
Occupation duties
<table>
<thead>
<tr>
<th>DUTY</th>
<th>KSBS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Duty 1</strong> Respond to customer callouts, blockage and flooding</td>
<td>K1 K2 K3 K5 K9 K11 K17</td>
</tr>
<tr>
<td>emergencies.</td>
<td>S1 S3 S4 S5 S8 S9 S12</td>
</tr>
<tr>
<td></td>
<td>B3 B4 B5</td>
</tr>
<tr>
<td><strong>Duty 2</strong> Carry out planned maintenance on the drainage network.</td>
<td>K1 K2 K3 K4 K5 K6 K8 K9 K11 K17</td>
</tr>
<tr>
<td></td>
<td>S1 S3 S4 S5 S6 S7 S8 S9 S12 S20 S22 S23</td>
</tr>
<tr>
<td></td>
<td>B1 B2 B3 B4 B5</td>
</tr>
<tr>
<td><strong>Duty 3</strong> Locate and identify structural and service condition</td>
<td>K1 K2 K3 K4 K5 K6 K9 K11 K17</td>
</tr>
<tr>
<td>defects where further works needs to be carried out.</td>
<td>S1 S3 S4 S5 S6 S8 S9 S12 S23</td>
</tr>
<tr>
<td></td>
<td>B4 B5</td>
</tr>
<tr>
<td><strong>Duty 4</strong> Undertake connectivity surveys, for example, confirming</td>
<td>K1 K2 K5 K6 K9 K11</td>
</tr>
<tr>
<td>or questioning the existing network using computer generated maps</td>
<td>S1 S3 S4 S5 S6 S8 S9 S12 S16</td>
</tr>
<tr>
<td>and plans.</td>
<td>B4 B5</td>
</tr>
<tr>
<td><strong>Duty 5</strong> Prepare work site, lifting covers safely, setting up</td>
<td>K1 K2 K5 K6 K7 K8 K9 K11 K17</td>
</tr>
<tr>
<td>chamber barriers, and appropriate signage, in accordance with the</td>
<td>S3 S4 S5 S6 S7 S8 S9 S11 S12 S16 S22 S23</td>
</tr>
<tr>
<td>New Roads and Street Works Act (NRSWA) when working on highways.</td>
<td>B4 B5</td>
</tr>
<tr>
<td><strong>Duty 6</strong> Fill up jetting unit saddle tank using designated water</td>
<td>K1 K2 K4 K5 K6 K9 K11</td>
</tr>
<tr>
<td>hydrants or washouts, in accordance with company hygiene procedures.</td>
<td>S4 S5 S6 S7 S8 S9 S10 S12 S16</td>
</tr>
<tr>
<td></td>
<td>B4 B5</td>
</tr>
<tr>
<td><strong>Duty 7</strong> Identify obstruction(s) using investigation techniques,</td>
<td>K1 K2 K5 K6 K9</td>
</tr>
<tr>
<td>to locate soft and hard blockages, roots, defected pipes, silt</td>
<td>S1 S2 S3 S4 S5 S6 S8 S9 S12 S16</td>
</tr>
<tr>
<td>build up and fats.</td>
<td>B4 B5</td>
</tr>
<tr>
<td><strong>Duty 8</strong> Clear roots and soft blockages using drain rods, and</td>
<td>K1 K2 K5 K6 K9</td>
</tr>
<tr>
<td>high-pressure water jetting techniques.</td>
<td>S3 S4 S6 S9 S12</td>
</tr>
</tbody>
</table>
Duty 9 Clean and de-silt pipes, using High Pressure Water Jetting, in accordance with company procedures.

Duty 10 Confirm blockages have been removed.

Duty 11 Record details of jobs done, and materials used, and raise follow-up work where necessary.

Duty 12 Professionally interact with customers, in accordance with company values and meeting customer satisfaction, including regulators measure of experience.

Duty 13 Carry out duties to take account of sustainability, returning any un-used materials, disposal of waste, and re-cycling/re-using where appropriate.

KSBs

Knowledge

K1: Common faults and issues in drainage. Fault-finding techniques.

K2: 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.

K3: Standard operating procedures (SOP) – what they are and why they are important.

K4: Types of incidents - accidents, near misses and mitigation methods.

K5: Reporting and escalation procedures.

K6: Asset maps and plans and how to use them. Sewerage systems and cable avoidance.

K7: 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.

K8: Principles to differentiate between the requirements of an open-cut repair and a repair using no-dig technology.

K9: 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 confined spaces; Working at height; New Roads and Street Works Act (NRSWA); manual handling; industry codes of practice.

K10: Verbal communication techniques. Giving and receiving information.

K11: Awareness of the relevant regulations and how they apply to their role: Water Environment Regulations; Environmental Protection Act and environmental signage.

K12: Environmental impacts that can arise from drainage operations activities and escaped or discharged sewage. Types of pollution and control measures: noise, odours, spills, and waste.


K14: Documentation requirements.


K16: Quality assurance requirements and procedures.

K17: Team working principles.

K18: Sustainability and efficient use of resources. Recycling, reuse and safe disposal of waste.

K19: Written communication techniques.

Skills

S1: Apply fault-finding techniques in the drainage system.

S2: Use CCTV and push rods.

S3: Identify and resolve common issues in the drainage system.

S4: Escalate issues in line with responsibilities.

S5: Identify, organise and use resources to complete tasks.

S6: Follow standard operating procedures (SOP)s.

S7: Work in accordance with water and environment protection regulations, standards and guidance.

S8: Clean and maintain tools and equipment, for example check oil levels and apply grease.
S9: Use drainage operative tools and equipment, including jetting equipment.
S10: Fill jetting unit saddle tank
S11: Apply safety practices and techniques. Signage, lighting and guarding.
S12: Conduct housekeeping for example, tidy work area.
S13: Communicate with others verbally, for example with colleagues and stakeholders.
S14: Communicate in writing with others for example, internal and external customers, colleagues, and managers.
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.
S16: Interpret asset maps and plans and update where appropriate.
S17: Follow procedures in line with environmental regulations, standards, and guidance. Segregate resources for reuse, recycling and disposal.
S18: Apply sustainability principles.
S19: Follow equality, diversity and inclusion policies.
S20: Carry out and record learning and development activities.
S21: Use information technology and digital systems. Comply with GDPR and cyber security.
S22: Apply team working principles.
S23: Follow quality assurance procedures.

Behaviours

B1: Seek learning and development opportunities.

B2: Consider the impact on the environment when using resources and carrying out work.

B3: Support an inclusive workplace for example, respectful of different views.

B4: Put health and safety first for self and colleagues.

B5: Take ownership of given work.

B6: Team-focus to meet work goals.

Qualifications

English and Maths

English and maths qualifications form a mandatory part of all apprenticeships and must be completed before an apprentice can pass through gateway. The requirements
are detailed in the current version of the apprenticeship funding rules.

**Does the apprenticeship need to include any mandated qualifications in addition to the above-mentioned English and maths qualifications?**

No

**Consultation**

**Progression Routes**

ST0898 Water network operative 1.0 L2

ST0876 Water process operative L2

ST0767 Water environment worker L3

ST1292 Water industry network technician-1.0 L3

ST1291 Water industry treatment process technician 1.0 L3

**Supporting uploads**

**Mandatory qualification uploads**

**Mandated degree evidence uploads**

**Professional body confirmation uploads**