

## Overview

This national occupational standard defines the competence involved in locating and avoiding supply apparatus in non routine operations by using appropriate search and detection methods, keeping updated records, identifying and avoiding risks of damage to services and danger to personnel, and following safe work practices. Supply apparatus in the context of this national occupational standard relates to supply apparatus for utilities and other agencies.

This standard is for those responsible for managing field operations during gas network construction activities. These activities will usually include the leadership and direction of the members of a team and decision making regarding the approach to take when undertaking the work.

This standard consists of four elements:

1. locate supply apparatus
2. maintain the safety and integrity of supply apparatus
3. use and communicate data and information to locate and maintain supply apparatus
4. resolve problems which arise during work activities

## Performance criteria

*You must be able to:*

### **Locate supply apparatus**

1. use work instructions and interpret utility plans to determine the extent of the work site and to enable the supply apparatus to be marked
2. carry out site specific risk assessment, and review in accordance with company procedures
3. use surface evidence, electronic location equipment, trial holes, and drawings to enable supply apparatus to be marked
4. mark the position and type of supply apparatus and sub-structures on the work site in accordance with work instructions and statutory and regulatory Codes of Practice
5. mark risks of damage to supply apparatus and sub-structures in accordance with statutory and regulatory Codes of Practice
6. record positions and types of supply apparatus and sub-structures in accordance with instructions and organisational requirements
7. communicate details of the position and type of supply apparatus and sub-structures to personnel in accordance with instruction and organisational requirements
8. report deviations in the position of equipment and identification of other structures, other equipment in accordance with instruction and organisational requirements
9. carry out all work to approved procedures and practices and in compliance with statutory requirements

### **Maintain the safety and integrity of supply apparatus**

10. maintain the position and condition of supply apparatus within the work site in accordance with their specification and Codes of Practice
11. ensure working practices within the work site avoid damage to supply apparatus
12. ensure exposed supply apparatus are supported correctly, protected safely and securely, in compliance with their specification and to approved procedures
13. take precautions to protect personnel and equipment from the effects of damage to supply apparatus in accordance with approved procedures and practices
14. ensure all work complies with latest specifications, statutory regulations and approved practices and procedures and practices

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**Use and communicate data and information**

15. check with designated personnel any circumstances where information appears incorrect
16. use organisational information systems to record and store data and information
17. follow all approved operational and organisational procedures for lone working

**Resolve problems that arise during work activities**

18. report promptly, to the designated person, any damage to supply apparatus and make area safe.
19. resolve day-to-day problems within the area of responsibility of the job holder
20. advise colleagues or managers where situations need them to intervene
21. refer matters outside the responsibility of the job holder to the designated people using approved procedures

## Knowledge and understanding

*You need to know and understand:* **General**

1. the main responsibilities of the employer and employee under the Health and Safety at Work Act
2. the main responsibilities of the employer and employee under environmental legislation
3. the company reporting lines, roles, responsibilities and levels of authority
4. the safe procedures for handling hazardous materials
5. organisational accident recording and reporting procedures
6. the range and use of personal protective equipment for the work

### **Supply Apparatus and Sub-structure**

7. typical locations and depths of the usual range of underground supply apparatus
8. methods of marking underground supply apparatus e.g. identification tape
9. the type of hazard associated with different supplies and actions to take in the case of damage.
10. the persons or organisations to be notified in the case of damage to supply apparatus or other underground structures
11. methods of marking out for excavation work to ensure the accurate location of the required excavation.
12. the outcomes of incorrect marking out of the excavations, including costs, loss of time, and material wastage
13. the importance of protecting supply apparatus exposed during excavation work
14. methods of providing temporary and permanent support to protect supply apparatus exposed during site excavations
15. the main sources of legislation relating to highways operations in the proximity of other supply apparatus.
16. methods of visually locating and identifying underground supply apparatus, including markers, signs and features, and the use of existing records
17. principles of operation and method of use of electronic detection equipment and their limitations

18. the safe procedures for handling the range of equipment necessary to carry out the task in hand
19. how to interpret the results of electronic detection equipment readings
20. the possible effects of external influences on electronic detection equipment readings
21. the situations where trial holes can be used to locate underground supplies
22. regulations governing the location of supply apparatus where this exposes other services
23. the precautions to be observed during supply location works, including statutory and regulatory requirements.
24. industry procedures and practices for confirming the location and marking of supply apparatus
25. roles and responsibilities of the various organisations involved in the work and how to liaise with them effectively
26. the key physical properties of the supply pipeline or component, size (diameter), colour, material and its resistance to impact from excavation activities,
27. the methods used to identify utilities and other agencies' supply apparatus
28. the physical properties of the contents of the medium being carried by the supply apparatus, ignition characteristics, density relative to air, electrocution, water damage.
29. the risks associated with not maintaining the safety and integrity of supply apparatus
30. the possible effects of damage to the supply apparatus
31. implications of damage to the supply apparatus that could include personal danger to the health or life of the operatives, or to others on site
32. the implications of damage to the supply apparatus that could include damage to the environment or additional job costs in repair and delay to job progress
33. the requirements of the New Roads and Street Works Act/ Order in NI Northern Ireland)
34. the importance of providing adequate support and protection for supply apparatus
35. the importance of referring problems outside the area of the job role responsibility to designated people

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36. the procedures for reporting and recording job progress, problems and deviations to work programmes

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### Scope/range

**Supply apparatus** - the supply apparatus for utilities and other agencies, above and below ground services, built structures, and the natural environment (e.g. foundations, tree roots, natural watercourses)

**Approved procedures and practices** – environmental, statutory regulatory, emergency, operational, health and safety, organisational and company procedures, and risk assessments

EUS GNC006

Locate and Avoid Supply Apparatus in Non Routine Operations for Gas Network Construction



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**Developed by** Energy & Utility Skills

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**Version Number** 2

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**Date Approved** December 2017

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**Indicative Review Date** December 2021

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**Validity** Current

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**Status** Original

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**Originating Organisation** Energy & Utility Skills

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**Original URN** EUS GNC006

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**Relevant Occupations** Gas Team Leaders, Craftspersons and Technicians

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**Suite** Gas Network Construction

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**Keywords** gas, network, gas network, locate, avoid, locate and avoid

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