

COSVR373 - SQA Unit Code DY18 04

Excavate holes and trenches



Overview

This standard is about

- 1 interpreting information
- 2 adopting safe and healthy working practices
- 3 selecting materials, components and equipment
- 4 carrying out the *excavation of holes and trenches

*Excavations by machine are carried out by specialist plant/machine operators

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Performance criteria

- You must be able to:*
- P1 interpret the given information relating to the work and resources to confirm its relevance
 - P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe work practices
 - P3 select the required quantity and quality of resources for the methods of work
 - P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
 - P5 comply with the given contract information to carry out the work efficiently to the required specification
 - P6 complete the work within the allocated time, in accordance with the programme of work

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Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate **information** and unsuitable **resources**, and how they are implemented
- K2 the types of **information**, their source and how they are interpreted
- K3 the organisational procedures to solve **problems** with the **information** and why it is important they are followed

Performance Criteria 2

Safe work practices

You need to know and understand:

- K4 the level of understanding operatives must have of **information** for relevant, current **legislation and official guidance** and how it is applied
- K5 how **emergencies** should be responded to and who should respond
- K6 the organisational **security procedures** for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why and when **personal protective equipment (PPE)** should be used

Performance Criteria 3

Selection of resources

You need to know and understand:

- K9 the characteristics, quality, uses, limitations and defects associated with the **resources** and how defects should be rectified
- K10 how the **resources** should be used and how any **problems** associated with the **resources** are reported
- K11 the organisational procedures to select **resources**, why they have been developed and how they are used
- K12 the **hazards** associated with the **resources** and **methods of work** and how they are overcome

Performance Criteria 4

Minimise the risk of damage

You need to know and understand:

- K13 how to **protect work** from damage and the purpose of protection
- K14 why **disposal of waste** should be carried out safely and how it is achieved

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Performance Criteria 5

Meet the contract specification

You need to know and understand:

- K15 how **methods of work**, to meet the specification, are carried out and **problems** reported
- K16 how **maintenance** of tools and equipment is carried out

Performance Criteria 6

Allocated time

You need to know and understand:

- K17 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

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Additional Information

Scope/range related to performance criteria

Performance Criteria 1

- 1 interpretation of drawings, specifications, schedules and manufacturers' information related to the work to be carried out

Performance Criteria 2

- 2 safe use of personal protective equipment (PPE) to carry out the activity, in accordance with legislation and/or organisational requirements
- 3 safe use and storage of tools and equipment

Performance Criteria 3

- 4 selection of resources associated with own work
 - 4.1 materials and components
 - 4.2 tools and equipment

Performance Criteria 4

- 5 protection of the work and its surrounding area from damage
- 6 minimise damage and maintain a clean work space
- 7 disposal of waste in accordance with legislation

Performance Criteria 5

- 8 demonstration of work skills to measure, mark out, excavate, support and secure
- 9 use and maintain hand tools, portable power tools and ancillary equipment
- 10 excavate holes and trenches in highway location and/or construction site to given working instructions relating to any one of the following surfaces
 - 10.1 modular
 - 10.2 rigid
 - 10.3 flexible
 - 10.4 grass areas

Performance Criteria 6

- 11 completion of own work within the estimated, allocated time to meet the needs of other occupations and/or client

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Scope/range related to knowledge and understanding

Disposal of waste

- 1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

- 2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with
 - 2.1 fires, spillages, injuries

Hazards

- 3 those identified by method of work, manufacturers' technical information, statutory regulations and official guidance

Information

- 4 drawings, specifications, schedules, manufacturers' information and statutory and regulatory Codes of Practice for excavations and support of the excavations

Legislation and official guidance

- 5 this relates to the operative's responsibilities regarding potential accidents and health hazards whilst working in the workplace, below ground level, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting

Maintenance

- 6 operative care of hand tools and/or portable power tools and ancillary equipment

Methods of work

- 7 application of knowledge for safe work practices, procedures and skills, relating to the method/area of work and materials used, to
 - 7.1 identify and confirm the type of surface and sub-surface composition
 - 7.2 remove ironwork, modular components
 - 7.3 excavate ground structures by manual dig up to 2 metres
 - 7.4 guide excavating machine to excavate ground structures
 - 7.5 avoid damage to service apparatus and sub-structures
 - 7.6 identify and store reusable materials
 - 7.7 position, secure and remove excavation supports
 - 7.8 provide for access and egress
 - 7.9 use hand tools, power tools and equipment
- 8 team work and communication
- 9 needs of other occupations associated with the excavation of holes and trenches

Personal protective equipment (PPE)

- 10 occupational use, types, purpose of each type and work situations

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Problems

- 11 those arising from information, resources and methods of work
 - 11.1 own authority to rectify
 - 11.2 organisational reporting procedures

Programme

- 12 types of progress charts, timetables and estimated times
- 13 organisational procedures for reporting circumstances which will affect the work programme

Protect work

- 14 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

- 15 materials, components and equipment relating to types, quantity, quality and sizes of standard and/or specialist
 - 15.1 timber, trench sheeting, mechanical support mechanisms
 - 15.2 hand and/or powered tools and ancillary equipment
- 16 methods of calculating quantity, length, area and wastage associated with the method/procedure to excavate holes and trenches

Security procedures

- 17 site, workplace, company and operative

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