



Regulated Qualifications Unit and Assessment Specification

Unit title	Installing Drainage in the Workplace
Regulator unit code	Y/504/6775
SQA unit code	H5YA 68
SSC Ref	VR 369v2

History of changes

Publication date: November 2013

Version: 02 (July 2017)

Version number	Date	Description	Authorised by
02	July 2017	Unit Specification updated to reflect current Ofqual terminology	Qualifications Officer

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Regulated Qualifications Unit specification

Title:	Installing Drainage in the Workplace	
Level:	2	
Credit value:	19	
Learning Outcomes <i>The learner will be able to:</i>	Assessment Criteria <i>The learner can:</i>	
1 Interpret the given information relating to the work and resources when installing drainage.	1.1	Interpret and extract relevant information from drawings, risk assessments, method statements, specifications, schedules and manufacturers' information.
	1.2	Comply with information and/or instructions derived from risk assessments and method statements.
	1.3	Describe the organisational procedures developed to report and rectify inappropriate information and unsuitable resources and how they are implemented.
	1.4	Describe different types of information, their source and how they are interpreted in relation to: <ul style="list-style-type: none"> ◆ drawings, risk assessments, method statements, specifications, schedules, manufacturers' information and regulations governing the installation and construction of drainage systems
2 Know how to comply with relevant legislation and official guidance when installing drainage.	2.1	Describe their responsibilities regarding potential accidents and health hazards, whilst working: <ul style="list-style-type: none"> ◆ in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement/storage of materials and by manual handling and mechanical lifting
	2.2	Describe the organisational security procedures for tools, equipment and personal belongings in relation to site, workplace, company and operative.
	2.3	Explain what the accident reporting procedures are and who is responsible for making reports.

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Learning Outcomes <i>The learner will be able to:</i>	Assessment Criteria <i>The learner can:</i>	
3 Maintain safe and healthy working practices when installing drainage.	3.1	Use health and safety control equipment and access equipment safely to carry out the activity in accordance with current legislation and organisational requirements when installing drainage.
	3.2	Comply with information relating to specific risks to health when installing drainage.
	3.3	Explain why and when health and safety control equipment, identified by the principles of protection, should be used, relating to installing drainage, and the types, purpose and limitations of each type, the work situation and general work environment, in relation to: <ul style="list-style-type: none"> ◆ collective protective measures ◆ personal protective equipment (PPE) ◆ respiratory protective equipment (RPE) ◆ local exhaust ventilation (LEV)
	3.4	Describe how the relevant health and safety control equipment should be used in accordance with the given instructions.
	3.5	Describe how emergencies should be responded to in accordance with organisational authorisation and personal skills when involved with fires, spillages, injuries and other task-related hazards.

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Learning Outcomes <i>The learner will be able to:</i>	Assessment Criteria <i>The learner can:</i>
4 Select the required quantity and quality of resources for the methods of work to install drainage.	4.1 Select resources associated with own work in relation to materials, components and fixings, and tools and equipment.
	4.2 Describe the characteristics, quality, uses, sustainability, limitations and defects associated with the resources in relation to: <ul style="list-style-type: none"> ◆ pipes, fittings and ancillary components ◆ pre-cast (metal, concrete, clay or plastic) components ◆ bricks, blocks and sandbags ◆ granular materials, aggregates, cement, concrete, mortars and sand ◆ sealant materials (adhesives, compounds, solvents) ◆ hand and/or powered tools and equipment
	4.3 Describe how the resources should be used correctly and how problems associated with the resources are reported.
	4.4 Explain why the organisational procedures have been developed and how they are used for the selection of required resources.
	4.5 Describe any potential hazards associated with the resources and methods of work.
	4.6 Describe how to calculate quantity, length, area and wastage associated with the method/procedure to install drainage.
5 Minimise the risk of damage to the work and surrounding area when installing drainage.	5.1 Protect the work and its surrounding area from damage in accordance with safe working practices and organisational procedures.
	5.2 Minimise damage and maintain a clean work space.
	5.3 Dispose of waste in accordance with current legislation.
	5.4 Describe how to protect work from damage and the purpose of protection in relation to general workplace activities, other occupations and adverse weather conditions.
	5.5 Explain why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance.

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6	Complete the work within the allocated time when installing drainage.	6.1	Demonstrate completion of the work within the allocated time.
		6.2	Describe the purpose of the work programme and explain why deadlines should be kept in relation to: <ul style="list-style-type: none"> ◆ types of progress charts, timetables and estimated times ◆ organisational procedures for reporting circumstances which will affect the work programme
7	Comply with the given contract information to install drainage to the required specification.	7.1	Demonstrate the following work skills when installing drainage: <ul style="list-style-type: none"> ◆ measuring, marking out, laying, positioning, fitting, levelling, plumbing, aligning, securing and testing
		7.2	Install and test new and/or replacement, foul and/or surface water drainage for two of the following to given working instructions: <ul style="list-style-type: none"> ◆ pipework (eg clay, concrete, metal, or plastic) ◆ inspection chambers (eg brick, concrete, metal or plastic) ◆ surface water systems (eg cells, culverts, high capacity, linear, balancing ponds, interceptors, recycling equipment, soak-a-ways, sustainable urban drainage systems) ◆ foul water systems (eg cess pools, septic tanks, reed beds, treatment plants)
		7.3	Safely use materials, hand tools, portable power tools and ancillary equipment.
		7.4	Safely store the materials, tools and equipment used when installing drainage.

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	7.5	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: <ul style="list-style-type: none"> ◆ excavate trenches and provide trench support ◆ confirm ground conditions, site and excavations are suitable for the drainage installation work ◆ prepare bedding for pipework ◆ determine levels and gradients ◆ identify the differences between surface and foul water drainage ◆ lay, position, level, plumb, align, fit, fix and secure new and replacement drainage systems ◆ construct structures of a drainage system (storm alleviation, culverts, inspection chambers, lateral drains, overflows, sumps, filter drains, sustainable urban drainage systems)
	7.6	Describe how to apply safe and healthy work practices, follow procedures, report problems and establish the authority needed to rectify them, to: <ul style="list-style-type: none"> ◆ assemble pre-cast components (metal, concrete, clay and plastic) of a drainage system structure (inspection chambers, street iron work) ◆ connect and seal new systems to existing systems ◆ conduct smoke, water, ball, air mandrel and close circuit television tests on drainage systems ◆ work with plant and machinery ◆ use hand tools, power tools and equipment ◆ work at height and below ground level ◆ use access equipment
	7.7	Describe the needs of other occupations and how to effectively communicate within a team when installing drainage.
	7.8	Describe how to maintain the tools and equipment used when installing drainage.

Title:	Installing Drainage in the Workplace
Additional information about this unit	
Purpose and aim of unit	The aim of this unit is to illustrate the skills, knowledge and understanding required to confirm competence in installing mains drainage systems in the workplace within the relevant sector of industry.
Unit start date	01 November 2013
Details of the relationship between the unit and relevant national occupational standards or other professional standards or curricula (if appropriate)	This unit is based on the National Occupational Standard 'Install Mains Drainage Systems' (VR 369v2)
Assessment requirements or guidance specified by a sector or regulatory body (if appropriate)	<p>This unit must be assessed in a work environment, in accordance with:</p> <ul style="list-style-type: none"> ◆ the Additional Requirements for Qualifications using the title NVQ in QCF ◆ the ConstructionSkills' Consolidated Assessment Strategy for Construction and the Built Environment <p>Assessors for this unit must have verifiable, current industry experience and a sufficient depth of relevant occupational expertise and knowledge, and must use a combination of assessment methods as defined in the Consolidated Assessment Strategy.</p> <p>Workplace evidence of skills cannot be simulated.</p> <p>This unit must be assessed against two of the following endorsements:</p> <ul style="list-style-type: none"> ◆ Pipework ◆ Inspection chambers ◆ Surface water systems ◆ Foul water systems
Support for the unit from a sector skills council or other appropriate body (if required)	ConstructionSkills
Location of the unit within the subject/sector classification system	05.2 Building and Construction
Name of the organisation submitting the unit	ConstructionSkills
Credit value	19
Guided Learning Hours	63

Regulated Qualifications Assessment specification

Assessment (evidence) requirements

The evidence requirements for this unit are shown in the main body of the unit under the section titled 'Assessment requirements or guidance specified by a sector or regulatory body'.

Guidance on instruments of assessment

Occupational skills (OS) unit

This unit is designed to assess the skills of learners in the workplace. Observation of learner performance can only be carried out on-the-job and should always be the primary and preferred source of evidence of competent performance.

Collection of supplementary evidence of performance can be used to further substantiate, support and expand the evidence base for competent performance where this is necessary. This may arise in situations where evidence from direct observation of the learners on-the-job is deemed insufficient to fully meet the required standards. Supplementary evidence may include:

- ◆ witness testimony
- ◆ questioning
- ◆ professional discussion
- ◆ product and photographic evidence
- ◆ relevant active documentation, reports, presentations
- ◆ other valid evidence which relates directly to learner performance on-the-job

SQA's Guide to Assessment is designed to provide support for everyone who assesses for SQA qualifications. It looks at the principles of assessment, and brings together information on assessment in general as well as on best practice in assessment. The Guide to Assessment can be downloaded free from SQA's website www.sqa.org.uk.