Utility Excavations

Self-Assessment Report (SAR)

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What is Utility Excavations?

The Utility Excavations scheme is an Energy & Utility Skills skills-based scheme designed for those individuals working in excavation and excavation-related roles who need relevant training and assessment in order to ensure safe and effective excavation practice.

Following consultation with supply chain companies, facilitated by Energy & Utility Skills, to generate a consistent approach to skills development, a set of industry standards were produced which clearly define expectations in terms of performance and knowledge of individuals completing excavation activities. As part of this consistent approach, achievement of one or more of these standards are represented on the back of the EUSR Card.

The set of industry standards are as follows:

- Category 1. Locate Utility Services
- Category 2. Implement Safe (Digging) Excavating Practices
- Category 3. Install, Inspect & Remove Timber Support Systems
- Category 4. Install, Inspect & Remove Steel Support Systems
- Category 5. Install, Inspect & Remove Proprietary Support Systems

Achievement of one these standards is **valid for 3 years from the date of completion**.

In order to have a training programme approved by Energy & Utility Skills for Utility Excavations, there are a number of requirements that training providers need to meet:

1) **You will need to be approved as a training provider**. The Quality Framework – which sits at the heart of provider approval - sets the minimum criteria for learning and development practices, and links into the programme approval process. Sometimes provider approval can be carried out at the same time as the approval of a training programme. If you are not yet an approved Energy & Utility Skills training provider, then you should visit the Energy & Utility Skills website (www.euskills.co.uk) to find out further details.

2) **You will need to meet the generic training programme criteria for an approved skills-based programme**. These are the general requirements that any approved training programme must meet. They are included below on pages 6 - 8.

3) **You will need to meet the requirements of the Utility Excavations-specific programme criteria**. Training and assessment programmes must be mapped to these unit standards, and then they are approved for delivery by Energy & Utility Skills, as well as resources, delivery plans and internal quality assurance processes.

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Utility Excavations approval process

As an approved training provider, the first step is to complete and submit a Self-Assessment Report (SAR) as well as the mapping to the Utility Excavations standards for which you require approval. Your SAR, mapping and evidence will be reviewed and if it meets all the required criteria, we will confirm our approval of your Utility Excavations training programme. The SAR sections to be completed by you are on pages 14 - 17.

In more detail, the approval process requires that you:

- Read and understand fully this Self-Assessment Report (SAR) and ensure that your Utility Excavations programme is fully compliant with the Energy & Utility requirements.

- Read and understand fully the generic training programme criteria and ensure that your Utility Excavations programme is fully compliant with these requirements.

- Read and understand fully the Utility Excavations-specific programme criteria and category-specific standards which relate to your programme/s and ensure that your programme/s fully meets this criteria and these standards. All programmes approved under the Utility Excavations Scheme must fully align with these requirements.

- A mapping document must be provided, as part of the approval process, to show how the programme has been mapped to the generic training programme criteria, Utility Excavations-specific programme criteria and category-specific standards. Contact the Quality team who can provide you with examples of mapping documentation.

- There is a mapping template available within Appendix A which you can use to support this activity. Use of this template, however, is not mandatory. Whatever form of template is used, it is requested that, as a minimum, it includes **clear** and **specific** reference to the location of the evidence that meets each of the **individual criteria**. If this is not clear, the submission will be rejected.

- In addition to mapping your programme to the Utility Excavations requirements, it is important that you submit examples of relevant supporting evidence, eg delivery plans, lesson plans, activity materials, assessment materials etc. Contact the Quality team who can help you with identifying the best ways to support your submission with scheme documentation.

- Provide Energy & Utility Skills with the date of the first programme that you intend to deliver. It is a mandatory requirement, specified by the employer group responsible for the scheme, that you undertake an observation of the programme delivery. The purpose of the ongoing assurance visit is to verify that the 'Live Dig' requirements of the programme have been met.

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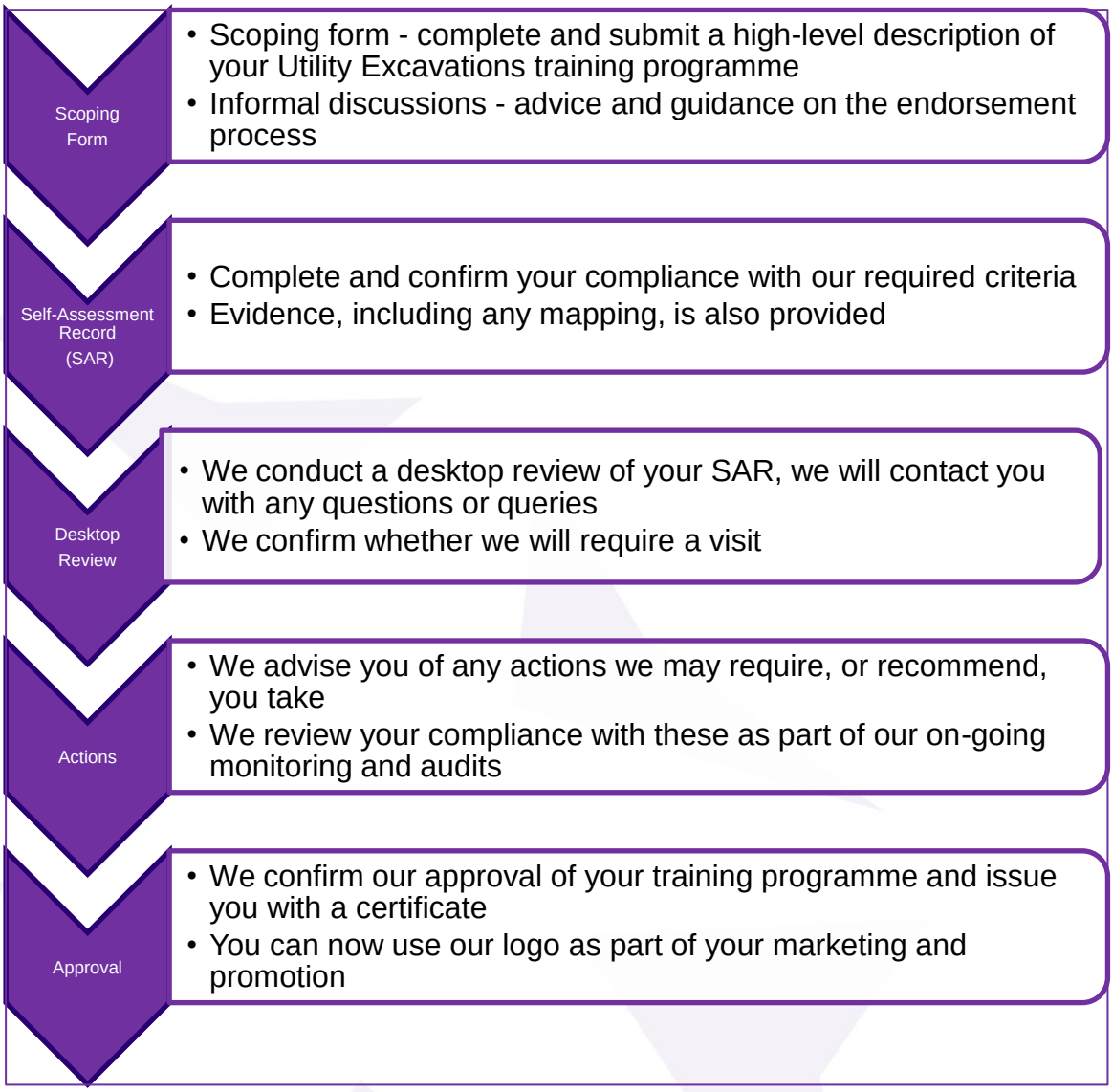
- Ensure that you have met all requirements (use the checklist) before submitting the programme/s for approval. (See page 15).

- A signature from an individual with appropriate authority in your organisation (ie a director, senior manager) is required to confirm that a thorough and honest self-assessment has taken place and that all requirements have been fully met.

The flow chart below summarises the process for programme approval:



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Assessment-only programmes

Once approved to deliver a Utility Excavations taught programme, it is also permissible to deliver assessment-only programmes to individuals who have significant and relevant experience and for whom a programme of learning in advance of assessment would be inappropriate.

Approved training providers should note that it is not permitted to deliver assessment-only programmes to individuals with little or no experience of the type of excavation and excavation-related activity in question. Approved training providers should note that members of the Quality Team may review approved providers arrangements in relation to these areas.

On-going monitoring and audits of Utility Excavations training programmes

All Utility Excavations training programmes that are approved by Energy & Utility Skills are subject to our on-going quality assurance monitoring which includes regular audits.

We use our Quality Framework to support our monitoring and audits. We audit all of our training providers at least every 12 months, sometimes more often if we deem them or the training programmes they offer to be of a 'higher risk'. To keep this as easy and efficient as possible, supporting evidence for our audits can be provided in a variety of ways eg. electronic or photographic.

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Utility Excavations requirements

This section addresses in more detail the Utility Excavations requirements identified above. In particular, it identifies the:

1) Generic training programme criteria – essential for all training programmes

2) Utility Excavations-specific programme criteria – essential for Utility Excavations programmes

3) Category-specific standards – required for each specific Category programme

1) Generic training programme criteria

The criteria below outlines the type of information we will require to support your application to have your Utility Excavations training programme approved by Energy & Utility Skills. Please contact the Quality team (email: quality@euskills.co.uk) us if you require any additional information or have any questions.

Evidence Requirement	Supporting information
1.Qualifications, CVs and CPD - for all staff involved in the training programme design and delivery (eg. trainers, assessors, internal quality assurers)	• CVs – occupational competence – a minimum of 2 years • CPD – evidence of ongoing CPD
2. Planning	• Mapping to industry standards, qualifications, apprenticeships or Energy & Utility schemes • Learning outcomes are clearly stated with clear aims and objectives • Duration of the training programme • Description of an average/typical individual attending the training programme • Structure of training programme including any Rules of Combination, barring of modules etc. • Recognition of Learning or Accreditation of Prior Learning process • Reasonable adjustments and special consideration process • Schemes of work and/or lesson plans

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3. Lesson Delivery	• Delivery methodologies • Delivery timetables • Delivery support materials, resources and activities – for trainers and learners • Mapping to relevant industry standards, qualifications, Energy and Utility Schemes or apprenticeships • Mapping of delivery materials to learning outcomes • Mapping of assessment materials to delivery materials • Methodologies and materials used to deliver programmes
4. Information, advice and guidance to support individuals	• Information, advice and guidance for prospective learners (marketing material, website, leaflets, helplines, joining instructions) • Pre-training programme information availability eg joining instructions containing information on the programme including learning aims, objectives and outcomes, programme overview, costs, pre-requisites such as competence or knowledge, logistics such as venue, timings, catering, dress code, PPE requirements etc. • Information for current individuals (eg. specification, handbook, manual, industry standards, working practices, print-out of slides, workbooks, suggested additional reading lists, suggested additional activities or exercises, case studies) • Advice and guidance for current individuals (eg support mechanisms in place, specialist support availability, progression information, careers advice).
5. Assessment	• Assessment methodologies • Assessment mark schemes/guides • Assessment plans/evidence matrices • Assessor written evidence/IQA written plans • Assessment feedback

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6. Internal Quality Assurance	• IQA methodology (minimum requirements for assuring quality of delivery and assessment) • Sampling plan • Processes, policies, proformas, templates, and records • Standardisation processes • Invigilation process (if appropriate)
7. Feedback	• Evaluation mechanism • 360 feedback loop
8. Review	• Regular and appropriate review of the training programme including support materials

2) Utility Excavations-specific programme criteria

Basic Design Criteria:	
Specific Utility Excavations Design Criteria:	The relevant specification(s) for the categories being submitted against has been integrated into the learning, development and assessment process. See mapping document in Appendix A.
	A 'Live Dig' will be integrated and conducted as a mandatory part of the assessment.

3) Category-specific standards

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Category 1: Locate Utility Services

Category 1: Locate Utility Services covers the minimum training and assessment required for those working to safely detect utility services using recognised and approved detection methods. The standard has been derived from the following National Occupational Standards:

- EUSMUNC06 Locate and Avoid Services for Utilities Network Construction
- EUSEPUS044 Location and Identification of Underground Utility Services in the Electricity Power Utilities

It also incorporates the relevant requirements of HSE guidance documents:

- HSG47 Avoiding Danger from Underground Services
- HSG150 Health and Safety in Construction

Achievement of the standard demonstrates effective performance, by being able to demonstrate the following skills and knowledge:

- Interpret utility drawings and line search documents
- Use location equipment to locate underground services
- Identify the dangers and hazards associated with underground services

1987 Category 1
Locate Utility Services

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Category 2: Implement Safe (Digging) Excavating Practices

Category 2: Implement Safe (Digging) Excavating Practices covers the minimum training and assessment required for those working to safely excavate and maintain holes and trenches using both hand tools and hand held power tools. The standard has been derived from the following National Occupational Standards:

- EUSEPUS043 Carry out Excavation Work on Underground Cables in Electricity Power Environment
- EUSMUNC07 Excavate and Maintain Holes and Trenches for Utility Networks Construction
- EUSGNC007 Excavate and Maintain Holes and Trenches for Complex Operations in Gas Network Construction

It also incorporates the relevant requirements of HSE guidance documents:

- HSG47 Avoiding Danger from Underground Services
- HSG150 Health and Safety in Construction

Achievement of the standard demonstrates effective performance, by being able to demonstrate the following skills and knowledge:

- Interpret utility drawings and line search documents to identify underground services
- Use safe digging techniques to carry out and maintain excavations
- Identify the dangers and hazards associated with excavations

1988 Category 2
Implement Safe (Digg

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Category 3: Install, Inspect & Remove Timber Support Systems

Category 3: Install, Inspect & Remove Timber Support Systems covers the minimum training and assessment required for those working to install, inspect and remove timber excavation support systems. The standard has been derived from the following National Occupational Standards:

- EUSMUNC07 Excavate and Maintain Holes and Trenches for Utility Networks Construction
- EUSGNC007 Excavate and Maintain Holes and Trenches for Complex Operations in Gas Network Construction
- COSVR370 Provide Temporary Excavation Support

It also incorporates the relevant requirements of:

- City and Guilds Level 2 Awards in Excavation Support Systems (6146-21) Nov 2012
- HSG47 Avoiding Danger from Underground Services
- HSG150 Health and Safety in Construction
- CIRIA Trenching Practice (second edition R97)
- British Standard 4978 : 2007:2011 Visual Strength Grading of Softwood

Achievement of the standard demonstrates effective performance, by being able to demonstrate the following skills and knowledge:

- Comply with Company procedures, health and safety regulations and environmental practices
- Interpret utility drawings and line search document
- Install, inspect and remove timber support systems
- Identify the dangers and hazards associated with excavations

1989 Category 3
Install Inspect and Rer

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Category 4: Install, Inspect & Remove Steel Support Systems

Category 4: Install, Inspect & Remove Steel Support Systems covers the minimum training and assessment required for those working to install, inspect and remove steel excavation support systems. The standard has been derived from the following National Occupational Standards:

- EUSMUNC07 Excavate and Maintain Holes and Trenches for Utility Networks Construction
- EUSGNC007 Excavate and Maintain Holes and Trenches for Complex Operations in Gas Network Construction
- COSVR370 Provide Temporary Excavation Support

It also incorporates the relevant requirements of:

- City and Guilds Level 2 Awards in Excavation Support Systems (6146-21) Nov 2012
- HSG47 Avoiding Danger from Underground Services
- HSG150 Health and Safety in Construction
- CIRIA Trenching Practice (second edition R97)

Achievement of the standard demonstrates effective performance, by being able to demonstrate the following skills and knowledge:

- Interpret utility drawings and line search document
- Install, inspect and remove steel support systems
- Identify the dangers and hazards associated with excavations
- Use and communicate data effectively and resolve problems

1990 Category 4
Install Inspect and Rer

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Category 5: Install, Inspect & Remove Proprietary Support Systems

Category 5: Install, Inspect & Remove Proprietary Support Systems covers the minimum training and assessment required for those working to install, inspect and remove proprietary excavation support systems. The standard has been derived from the following National Occupational Standards:

- EUSMUNC07 Excavate and Maintain Holes and Trenches for Utility Networks Construction
- EUSGNC007 Excavate and Maintain Holes and Trenches for Complex Operations in Gas Network Construction
- COSVR370 Provide Temporary Excavation Support

It also incorporates the relevant requirements of:

- City and Guilds Level 2 Awards in Excavation Support Systems (6146-21) Nov 2012
- HSG147 Avoiding Danger from Underground Services
- HSG150 Health and Safety in Construction
- CIRIA Trenching Practice (second edition R97)

Achievement of the standard demonstrates effective performance, by being able to demonstrate the following skills and knowledge:

- Comply with Company procedures, health and safety regulations and environmental practices
- Interpret utility drawings and line search document
- Install, inspect and remove proprietary support systems
- Identify the dangers and hazards associated with excavations

1991 Category 5
Install Inspect and Rer

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The Self-Assessment Report

In this section, you must begin to tell us about your Utility Excavations training programme. This section of the SAR must be fully completed and accompany the mapping of your programme/s.

1) Training programme information

Please complete the fields below so that we have full details of your programme/s

Organisation	Click here to enter text.
Named contact	Click here to enter text.
Contact details (telephone and email)	Click here to enter text.
Address	Click here to enter text.
Training programme title	Click here to enter text.
Link to any Energy & Utility Schemes - if so, mapping needs to be provided	Click here to enter text.
Is there a renewal or end date?	Click here to enter text.
Link to standards or qualifications in the UK (eg. NOS, RQF, Apprenticeships) – if so, mapping needs to be provided	Click here to enter text.
	Click here to enter text.
Duration	Click here to enter text.

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2) Criteria and evidence checklist

This part of the SAR must accompany your mapping of your programme against the relevant criteria and specifications, and confirms that you have fully completed the approval submission process.

Criteria and Evidence Checklist		
EX1	Programme demonstrates compliance with the requirements of the generic training programme criteria	☐
EX2	Programme demonstrates complete alignment to the Utility Excavations-specific programme criteria, with demonstrable systems for ensuring continued compliance The relevant specification(s) for the categories being submitted against have been integrated into the learning, development and assessment process.	☐
EX3	Programme demonstrates complete alignment to the Utility Excavations category-specific standards I have included a mapping document as part of my submission	☐
EX4	A 'Live Dig' will be integrated and conducted as a mandatory part of the assessment.	☐

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3) Website information

This information will be used by Energy & Utility Skills to promote your endorsed training programme on our website.

Leave blank if you do not require the information to be listed on our website				
Overview of the training programme including why it was developed, target audience, aims, objectives and assessment methodology	Click here to enter text.			
Standards the training programme is mapped to (eg industry, or qualification or Energy & Utility Skills scheme or programme) if any	Click here to enter text.			
Pre-requisites for the training programme	Click here to enter text.			
Duration of the training programme	Click here to enter text.			
Contact details - include name, email and/or telephone number	Click here to enter text.			
Industry eg. Gas, Water, Power, Waste Management, Telecomms	Click here to enter text.			
Location(s) Please select as many that apply:	Channel Islands	☐	East Midlands	☐
	East of England/East	☐	London	☐
	N E England	☐	N W England	☐
	Northern Ireland	☐	Republic of Ireland	☐
	Scotland	☐	S E England	☐
	West Midlands	☐	S W England	☐
	Yorkshire and The Humber	☐	Wales	☐

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	All	☐	

4) Named person declaration

This section confirms that a senior member of your organisation has reviewed the submission and agrees that the submission represents a thorough and honest self-assessment of the programme/s. It also confirms that the submission meets the full requirements of the scheme.

I confirm that **[Company Name]** has conducted a thorough and honest self-assessment of the **[insert Programme Title]** and that it meets all the criteria specified within the Utility Excavations SAR.

I understand that the Energy & Utility Skills reserves the right to seek further verification of the product described as part of the application and ongoing monitoring process in order to preserve the integrity of the product approval process, and understand that any inconsistencies and suspected deception may put the approval status at risk.

I understand and confirm that all learners who attend this programme will be registered with EUSR, as stated within the overarching conditions, and that each registration will be charged at the rate published on the EUSR website, unless otherwise agreed and confirmed in writing.

Name			
Job Title			
Company Address			
Telephone no			
Email address			
Signature		Date	Click here to enter text.

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APPENDIX A: Utility Excavations mapping document

Category 1: Locate Utility Services

	Performance Criteria	Location in Submission	Verified
1.1	Determine the work location using company documentation and work instructions		
1.2	Plan the work activity to comply with health, safety and environmental legislation and company policies and procedures		
2.1	Inspect and prepare locating equipment required to complete the work activity		
2.2	Wear required personal protective equipment to complete work activities in accordance with safe systems of work		
3.1	Use utility plans and line search documents to determine the extent of the work site area where services are to be located.		
3.2	Carry out a site-specific risk assessment (SSRA), recording finding and making recommendations to minimise risks		
3.3	Use utility plans in conjunction with electronic locating equipment to enable services to be located and marked. (Electronic locating equipment to be used in Power and Radio modes and using the Signal Generator in direct connection, induction and nulling out modes)		

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3.4	Mark and record the position of services and sub-structures on the work site in accordance with company procedures		
	Knowledge criteria	**Location in Submission**	**Verified**
K1	Your responsibilities regarding health, safety and the environment whilst at work		
K2	The health and safety guidance governing work including HSG47 and GS6		
K3	The range and use of personal protective equipment for the work		
K4	The requirements of a site specific risk assessment and control measures in relation to utility locating activities		
K5	How to interpret utility drawings and line search documents to identify services and apparatus		
K6	The typical depths of the range of underground services		
K7	Methods of marking out services and excavations e.g. identification tape		
K8	The hazards associated with different services and actions to take in case of damage		
K9	The persons or organisations to be notified in the case of damage to services or other underground structures		
K10	The potential outcomes of incorrect marking out of services and excavations, including injury, costs, loss of time and material wastage		

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K11	The roles and responsibilities of persons within the site/highways operations team		
K12	Methods of visually locating and identifying overhead and underground services including markers, signs and features, and use of existing records		
K13	The principles of operation and method of use of electronic locating equipment. Including the use of electronic locating equipment in Power and Radio modes, and using the Signal Generator in direct connection, inducting and nulling out modes		
K14	How to use Signal Generator induction loop, three pin plug adaptors and approved attachments		
K15	How to interpret the results obtained by the use of electronic locating equipment		
K16	The possible effects of external influence of electronic locating equipment readings and reduce the effects, e.g. metal fencing, reinforced concrete		
K17	The procedure for recording and communication details of the position and type of services and sub-structures (e.g. who, when, why)		
K18	The importance of reporting deviations in the position of equipment and identification of other structures, e.g. street furniture		

Category 2: Implement Safe (Digging) Excavating Practices

	Performance Criteria	Location in Submission	Verified

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1.1	Determine the work location using company documentation and work instructions		
1.2	Plan the work activity to comply with health, safety and environmental legislation and company policies and procedures		
2.1	Carry out a site-specific risk assessment, recording findings and making recommendations to reduce risks		
2.2	Identify and take into account the type and proximity of overhead and underground services		
2.3	Identify the required control measures to maintain a safe working environment, e.g. signing, lighting and guarding, segregation and edge protection		
2.4	Confirm the position and size of the required excavation in accordance with work instruction/specification		
2.5	Wear required personal protective equipment to complete work activities in accordance with safe systems of work		
2.6	Determine the most suitable method of excavation for the surface and sub-surface materials being removed		
3.1	Use the appropriate tools and equipment for the method of excavation to be used		
3.2	Excavate using hand tools and hand held power tools using safe digging practices in accordance with company procedures, Safe Systems of Work and HSG47		

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3.3	Identify, select, segregate, store and remove materials in accordance with work instructions and environmental requirements		
3.4	Maintain and comply with site safety demarcation arrangements and control measures		
3.5	Confirm dimensions and condition of completed excavation with work instruction/specification		
4.1	Confirm arrangements for the safe entry and exit to and from the excavation in line with company procedures		
4.2	Carry out all safety checks before any entry into the excavation		
4.3	Monitor and maintain the position and condition of services to ensure working practices within the work area avoid damage or disturbance		
	Knowledge criteria	**Location in Submission**	**Verified**
K1	Your responsibilities regarding health, safety and the environment whilst at work		
K2	The health and safety guidance governing work including HSG47 and GS6		
K3	The range and use of personal protective equipment for the work		
K4	The occupational health hazards and risks in relation to excavation e.g. diseases, noise, vibration, silica dust, asbestos		

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K5	The requirements of a site-specific risk assessment and control measures in relation to utility locating activities		
K6	How to interpret utility drawings to identify overhead and underground services and apparatus		
K7	The typical depths of the range of underground services		
K8	Methods of visually locating and identifying underground services including: markers, signs and features, use of existing records		
K9	The hazards associated with different services and actions to take in the case of damage		
K10	The persons or organisations to be notified in the case of damage to services or other underground structures		
K11	The importance of providing adequate support and protecting services exposed during excavation work		
K12	Methods of providing support to protect services exposed during site excavations		
K13	The roles and responsibilities of persons within the site/highways operations team		
K14	The situations where trial holes should be used to physically identify underground services		
K15	The key physical properties of underground services including: size (diameter), colour, material, fragility, methods of identification		

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K16	The significant risks of the medium being carried by underground services, e.g. ignition, density relate to air, electrocution and water damage, etc.		
K17	The risks associated with not maintaining the integrity of services		
K18	The implications of damage to services including: personal danger to operatives or others on site, damage to the environment or additional job costs in repair and delay to job progress		
K19	How the requirements of the NRSWA legislation is applicable to excavation activities		
K20	The methods and types of equipment used for excavation including hand tools, hand held power tools and reduced dig technology		
K21	The range and types of mechanical equipment used and their limitations and exclusions		
K22	Types of surfaces, sub-surfaces and soil types encountered during excavation work		
K23	The actions to take in the event of services being encased in or supported by concrete		
K24	The importance of keeping gullies, water courses and surface water outlets clear		
K25	The requirements of a banksman when excavating using mechanical methods		
K26	The care and maintenance of hand and power tools		
K27	The hazards and risks that can occur with the use of incorrect excavation practices		

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K28	The cost implications of incorrect excavation practices including over digging in terms of additional labour and materials for the job		
K29	How excavations could inconvenience the general public and the needs of people with visual and other mobility impairments		
K30	How failure to provide proper ground support could lead to injury, damage to services of sub-structures and the costs and operational implications		
K31	How using services as handhold and footholds can lead to major safety hazards		
K32	The hazards that could arise from working in excavations without natural or assisted ventilation and lighting		
K33	Situations where atmosphere-monitoring equipment should be used		
K34	Causes of instability in excavated areas, including soil types, moisture content, presence of surface water and ground water		
K35	The exclusion and removal of water from excavations		

Category 3: Install, Inspect & Remove Timber Support Systems

	Performance Criteria	Location in Submission	Verified

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1.1	Determine the work location using company documentation and work instructions		
1.2	Plan the work activity to comply with health, safety and environmental legislation and company policies and procedures		
1.3	Review the support system design to be installed/removed		
2.1	Inspect and prepare locating equipment required to complete the work activity in accordance with work instruction and equipment specifications		
2.2	Wear required personal protective equipment in accordance with company procedures		
2.3	Carry out a site-specific risk assessment (SSRA) to assess the suitability of the selected support system, stability of the excavation and the adjacent ground conditions and structures		
2.4	Record findings from SSRA, making recommendations to minimise risks		
2.5	Select and inspect materials to be used for the temporary works		
2.6	Inspect and prepare locating equipment required to complete the work activity in accordance with work instruction and equipment specifications		
3.1	Provide safe entry to and exit from the excavation		
3.2	Ensure appropriate edge protection, guardrails/stop blocks are around the excavation		
3.3	Install/remove timber shoring systems in accordance with support system design and sequence		

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4.1	Inspect and maintain timber shoring systems to ensure they meet the support system design		
4.2	Review and record site conditions in accordance with company procedures		
	Knowledge criteria	**Location in Submission**	**Verified**
K1	The health and safety guidance governing work in excavations including HSG47 and GS6		
K2	The occupational health hazards and risks in relation to timber shoring activities		
K3	The emergency and rescue procedures within the safe system of work		
K4	The requirements of NJUG Tree Guidelines		
K5	How to respond to deviations from the safe system of work		
K6	How to identify overhead and underground services and apparatus		
K7	How to interpret a trench support system design		
K8	The importance of providing adequate support and protecting services		
K9	The methods of providing support to protect exposed services		
K10	The risks associated with underground and overhead services		
K11	The methods and equipment used for timber trench support systems		

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K12	The hazards and risks that can occur with the use of incorrect trench support practices		
K13	The duties of an excavator banks person and slinger/signaller when installing and removing shoring using mechanical methods		
K14	How to recognise situations that could be, or become, a confined space and report in accordance with company procedures		
K15	How to monitor excavation conditions for stability and atmospheric gasses		
K16	The causes of instability in excavation areas, including soil types, moisture content, presence of surface water and ground water		
K17	How to exclude and remove water from excavations		
K18	The environmental considerations to be taken into account when disposing of trench water and contaminated ground		

Category 4: Install, Inspect & Remove Steel Support Systems

	Performance Criteria	Location in Submission	Verified
1.1	Determine the work location using company documentation and work instructions		
1.2	Plan the work activity to comply with health, safety and environmental legislation and company policies and procedures		

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1.3	Review the support system design to be installed/removed		
2.1	Inspect and prepare locating equipment required to complete the work activity in accordance with work instruction and equipment specifications		
2.2	Wear required personal protective equipment in accordance with company procedures		
2.3	Carry out a site-specific risk assessment (SSRA) to assess the suitability of the selected support system, stability of the excavation and the adjacent ground conditions and structures		
2.4	Record findings from SSRA, making recommendations to minimise risks		
2.5	Select and inspect materials to be used for the temporary works		
3.1	Provide safe entry to and exit from the excavation		
3.2	Ensure appropriate edge protection, guardrails/stop blocks are around the excavation		
3.3	Install/remove steel shoring systems in accordance with support system design and sequence		
4.1	Inspect and maintain steel shoring systems to ensure they meet the support system design		
4.2	Review and record site conditions in accordance with company procedures		
	Knowledge criteria	**Location in Submission**	**Verified**
K1	The health and safety guidance governing work in excavations including HSG47 and GS6		

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K2	The occupational health hazards and risks in relation to steel shoring activities		
K3	The emergency and rescue procedures within the safe system of work		
K4	The requirements of NJUG Tree Guidelines		
K5	How to respond to deviations from the safe system of work		
K6	How to identify overhead and underground services and apparatus		
K7	How to interpret a trench support system design		
K8	The importance of providing adequate support and protecting services		
K9	The methods of providing support to protect exposed services		
K10	The risks associated with underground and overhead services		
K11	The methods and equipment used for steel trench support systems		
K12	The hazards and risks that can occur with the use of incorrect trench support practices		
K13	The duties of an excavator banks person and slinger/signaller when installing and removing shoring using mechanical methods		
K14	How to recognise situations that could be, or become, a confined space and report in accordance with company procedures		

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K15	How to monitor excavation conditions for stability and atmospheric gasses		
K16	The causes of instability in excavation areas, including soil types, moisture content, presence of surface water and ground water		
K17	How to exclude and remove water from excavations		
K18	The environmental considerations to be taken into account when disposing of trench water and contaminated ground		

Category 5: Install, Inspect & Remove Proprietary Support Systems

	Performance Criteria	Location in Submission	Verified
1.1	Determine the work location using company documentation and work instructions		
1.2	Plan the work activity to comply with health, safety and environmental legislation and company policies and procedures		
1.3	Review the support system design to be installed/removed		

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2.1	Inspect and prepare locating equipment required to complete the work activity in accordance with work instruction and equipment specifications		
2.2	Wear required personal protective equipment in accordance with company procedures		
2.3	Carry out a site-specific risk assessment (SSRA) to assess the suitability of the selected support system, stability of the excavation and the adjacent ground conditions and structures		
2.4	Record findings from SSRA, making recommendations to minimise risks		
2.5	Select and inspect materials to be used for the temporary works		
3.1	Provide safe entry to and exit from the excavation		
3.2	Ensure appropriate edge protection, guardrails/stop blocks are around the excavation		
3.3	Install/remove proprietary shoring systems in accordance with support system design and sequence		
4.1	Inspect and maintain proprietary shoring systems to ensure they meet the support system design		
4.2	Review and record site conditions in accordance with company procedures		
	Knowledge criteria	**Location in Submission**	**Verified**
K1	The health and safety guidance governing work in excavations including HSG47 and GS6		

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K2	The occupational health hazards and risks in relation to proprietary shoring activities		
K3	The emergency and rescue procedures within the safe system of work		
K4	The requirements of NJUG Tree Guidelines		
K5	How to respond to deviations from the safe system of work		
K6	How to identify overhead and underground services and apparatus		
K7	How to interpret a trench support system design		
K8	The importance of providing adequate support and protecting services		
K9	The methods of providing support to protect exposed services		
K10	The risks associated with underground and overhead services		
K11	The methods and equipment used for proprietary trench support systems		
K12	The hazards and risks that can occur with the use of incorrect trench support practices		
K13	The duties of an excavator banks person and slinger/signaller when installing and removing shoring using mechanical methods		
K14	How to recognise situations that could be, or become, a confined space and report in accordance with company procedures		

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K15	How to monitor excavation conditions for stability and atmospheric gasses		
K16	The causes of instability in excavation areas, including soil types, moisture content, presence of surface water and ground water		
K17	How to exclude and remove water from excavations		
K18	The environmental considerations to be taken into account when disposing of trench water and contaminated ground		

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