

Work near any underground or overhead services*

<p>Site: Any (*where there is the known, suspected or likely presence of potentially harmful services including electricity, gas, water, sewage etc)</p>	<p>Date:</p>		
<p>Main work activities: Any activities where there is a risk of contact with or damage to underground/buried or overhead services not subject to a more specific risk-assessment</p> <p><i>NB This is a generic risk assessment for guidance. While it may be suitable for many low-risk activities, further or different controls may be necessary for specific locations and tasks (see further guidance overleaf). This assessment should be modified and more detailed controls included accordingly.</i></p>			
<p>Maximum number of people exposed: Typically 1 (occasionally up to 3 or more)</p> <p>Category, (skilled, visitor, trainee etc.): Skilled/Trained operators</p> <p>Age range: 18+</p> <p>Frequency and duration of exposure: Usually one-off at specific locations. Not generally a widespread/long-term exposure to these risks</p>			
<p>Hazards/risks identified:</p> <p>Making contact with any underground (buried) or overhead service causing harm and/or damage</p>			
<p>Current action taken to reduce the risk (if any):</p> <ol style="list-style-type: none"> 1. Work involving any risk of contact with buried or overhead services is only carried out by suitably trained persons or under the supervision of a suitably competent person 2. Before any work that may contact buried or overhead services starts appropriate investigations are completed to identify the likely presence and location of any such services. This may include observation, enquiries with utility suppliers, site owners and by consulting available plans. Buried services may also be located (or presence confirmed) through the use of a cable avoidance tool (CAT) 3. Any service that can be isolated prior to work commencing should be made safe 4. The location of any identified service is clearly marked to avoid accidental contact (this to include suitable marking of overhead hazards on the ground to avoid contact by vehicles and equipment) 5. Plant (excavators etc) and power tools should not be used in close proximity to known or suspected services 6. Safe digging techniques are to be employed where excavation near to known or suspected services is necessary <p>Risk assessment (taking account of existing controls):</p> <ol style="list-style-type: none"> 1. A serious risk remains requiring immediate action as detailed below 2. A significant risk remains and will be further dealt with as detailed below 3. This is considered a low/acceptable risk that is currently sufficiently well controlled 			
<p>Agreed new/additional control measures:</p>	<p>When</p>	<p>Who</p>	<p>Done</p>

Completed by: Jon Wayte, Occupational Safety and Health Adviser (OSHA)

Specific Guidance – Avoiding underground (buried) and overhead services- safe system of work

A safe system of work has three basic elements

- 1. Planning the work*
- 2. Detecting, identifying and marking underground services*
- 3. Safe excavation/safe digging practices*

Planning the work

- 1. Identify clearly the extent of the work area and find out what underground services are within the area before considering whether they are likely to be disturbed*
- 2. Obtain service drawings from utilities companies and other organisations with relevant information about the site*
- 3. Survey the site to identify the services and other underground structures. Record the location of any services*
- 4. Review/assess the planned work to avoid disturbing services where possible*
- 5. Allow sufficient time and provide sufficient resource to do the work safely*
- 6. Emergency work still requires planning and assessment of the risks arising from the work. A precautionary approach must be taken when breaking ground*

There are a number of 'one-call' services available that can simplify the process of identifying who may have underground services in the work area and arranging for copies of plans and service records to be provided. Some of these services are free to use while others may charge

*NB Where it is not possible for those undertaking the work to obtain information, as may be the case when emergency work has to be undertaken, the work **must** be carried out as though there are underground services in the area*

Detecting, identifying and marking underground services

- 1. Locate the services identified at the planning stage survey as being in the work area*
- 2. Make sure those involved in detecting and identifying services are competent in the proper use of survey tools and detecting devices as well as reading/interpreting plans*
- 3. Once detected, identify and mark the services and confirm their status – ie whether electricity cables are live, whether gas pipes are pressurised – and then record their location*

Safe excavation/safe digging practices

- 1. Determine the method or technique for excavating near underground services before work starts, taking account of*
 - the nature and scope of the work*
 - the type, position and status of underground services*
 - the ground conditions*
 - site constraints*
- 2. Provide those doing the work with a written plan, including information about the location and nature of underground services. They should be competent, provided with appropriate personal protective equipment (PPE) and work equipment, and allowed sufficient time*
- 3. Identified services should be carefully exposed and clearly marked. A permit system may be appropriate for particularly hazardous work (seek further advice from the Occupational Safety and Health Adviser)*
- 4. Backfilling of excavations must properly support and protect the underground services. Concrete must not be used to encase services when backfilling*

NB If an underground or overhead service suffers damage during work, inform the owner/operator. In the case of electricity cables, gas pipes, other pipelines or high-pressure water mains, arrange to keep people well clear of the area until it has been repaired or otherwise made safe by the owner/operator