

Life Saving Commitments

High Hazard Services



Zero incidents
Zero harm
Zero compromise

Keeping you **healthy** and **safe**, every day **at work**.



Working around High Hazard Services kills or seriously injures people every year, either from hitting a service or working on site assets. All breaking ground activities and working on any site high risk assets (shallow, deep and over ground etc.) must be properly planned, designed, managed and supervised to prevent incidents. You should:

- **Design and plan** work to prevent any breaking ground and/or working around live services where possible
- **Clearly scope works** and ensure the location of any known service interaction is marked up
- State what the **requirements are for management and supervision** levels of work near to services
- Define/establish **communication channels** for designers and supply chain
- Outline change and ensure you follow the **management of change process**
- Understand the **responsibilities and coordination** for management of information for over/ underground services



The following mandatory steps must be taken for any known live electricity service encased in concrete prior to breaking ground or on the discovery of a cable encased in concrete:

1. **Stop Work** - Discuss with your line manager - Contact the Asset Owner (i.e. provider) to request isolation and retain a record of the request
2. **Complete a line search** before you break ground: www.linesearchbeforeudig.co.uk - Allow sufficient time and resources for positive service location and recording of services where appropriate.

Thames Water have standards that were developed with our Partners to assist you in developing your Safe Systems of Work/ Risk Assessments and planning work activities. They can be found on the Health & Safety Hub in the Key documents section <http://www.healthandsafetyhub.co.uk/index.html>

They include **Essential Standards** and in particular:

ES 1 - Excavations

ES 27 - Utility management

ES 24 – PPE

Thames Water Visual Standards



If something doesn't feel right, it probably isn't - stop it and report it

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Planning your work activity safely and designing out the risk of working around high hazard services is a key element to safe working practices. Have you considered the following on your site?

Key Controls:

- ✓ Work in line with **HSG47** - there is a legal requirement to isolate known live services prior to breaking ground
- ✓ **Isolate existing services** during the planned activities – record isolation requests
- ✓ Design works to **avoid breaking ground** and plan effectively to avoid any utility strike, be it under or over ground and have a responsible, authorised person in charge
- ✓ Ensure the necessary **plans, service drawings, tools, equipment and materials** are available on site to carry out the work safely
- ✓ Ensure all service providers are contacted, including service providers such as **London underground**
- ✓ Anyone undertaking work around high Hazard services must be **trained, competent** and understand the risks and control measures to be implemented
- ✓ Use locating devices to trace any services with **data logging capability** (CAT, Genny, GPR, that has immediate data capture to an online system).
- ✓ Ensure you **ALWAYS use the Genny**, not just the CAT
- ✓ **Mark the ground accordingly** – if a shown service cannot be found, stop and escalate
- ✓ Continue to scan – **every 150mm** and mark up as you dig
- ✓ Always complete a **full scan of the area**, not just to find what you have listed on the plans
- ✓ Maintain safe distances from existing services – **NEVER use a mechanical aid** to break ground within **500mm of a service**
- ✓ Safe System of Work including **permit to break ground** have been completed for Moling, directional drilling and trial holes etc.
- ✓ Make sure that the responsible person supervising the work has **service plans**, and has **reviewed and scanned** the area for overhead service before the works starts
- ✓ Always ensure the correct method is used to minimise the risk of damaging a service
- ✓ **Physically protect** any exposed services to prevent damage
- ✓ Use hand excavation techniques or improved technology such as **vacuum excavation** and air lances/soil picks
- ✓ Ensure that all persons involved are **briefed and fully understand** the scope of works and hazards associated with the activity.
- ✓ Pre construction meetings must **include designers**
- ✓ High Hazard Services may include, but not limited to :
 - Overhead cables/ underground services - EHV / LV / HV
 - High/ medium pressure gas services
 - Fibre optic cables
 - On site Bio gas pipework and associated assets
 - Oil and fuel pipe lines.



When working in and around High Hazard Services, always remember **ZERO Compromise**

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1 - Eliminate

Eliminating the Hazard completely is the best control possible as the hazard/ risk has been removed and can not cause any harm – Design out the activity

2 - Substitution

Replace the risk or reduce it as much possible – Look for an alternative method i.e. vacuum excavation

3 - Isolate

Separate the hazards and risk from people – turn off the service

PPE

PPE must be suitable for the task and risks, compatible with other PPE, comfortable and to Thames Water minimum standards

4 - Information and Control

Administrative controls and proper planning lessen the risk by making people more aware of the hazard - Pre-construction information from the client, designer or landowner may include; utility drawings, historical information and physical evidence on the ground, which should include a visual assessment of buildings, such as: overhead cables, cabinets, street furniture and other structures

Zero Compromise

Everyone at Thames Water is empowered to stop work if it is unsafe. No-one should feel that they might be challenged for doing the right thing. Everyone has the right to challenge and stop work if they have concerns. Everyone must know the right thing to do is to protect the health, safety and wellbeing of themselves and others

Discipline

Mark the ground accordingly – if a shown service cannot be found, stop and escalate. Continue to scan – every 150mm. Maintain safe distances from existing services. Use Fully insulated tools. Team to ensure they scan the area for overhead service before works starts