



Every year, people are killed or seriously injured when working in excavations. Excavation work has to be properly planned, managed, supervised and carried out to prevent accidents. This guide provides advice for those involved in excavation work.

Planning

Before digging any excavations, it is important to plan against the following:

- Collapse of the sides.
- Materials falling onto people working in the excavation.
- People and vehicles falling into the excavation.
- People being struck by plant.
- Undermining nearby structures.
- Contact with underground services.
- Access to the excavation.
- Fumes.
- Accidents to members of the public.

Make sure the necessary equipment needed such as trench sheets, props, baulks, etc., is available on site before work starts.

Excavation Collapse

Prevent the sides and the ends from collapsing by battering them to a safe angle or supporting them with timber, sheeting or proprietary support systems.

Do not go into unsupported excavations.

Never work ahead of the support.

Remember that even work in shallow trenches can be dangerous. You may need to provide support if the work involves bending or kneeling in the trench.

Materials Falling into Excavations

Do not store spoil or other materials close to the sides of excavations. The spoil may fall into the excavation and the extra loading will make the sides more prone to collapse.

Make sure the edges of the excavation are protected against falling materials. Provide toe boards where necessary.

Wear a hard hat when working in excavations.

People and Vehicles Falling into Excavations

Take steps to prevent people falling into excavations. For any excavation consideration must be given to providing substantial barriers, e.g. guardrails and toe boards.

Keep vehicles away from excavations wherever possible. Use brightly painted baulks or barriers where necessary.

Where vehicles have to tip materials into excavations, use stop blocks to prevent them from over-running. Remember that the sides of the excavation may need extra support.

People Being Struck by Plant

Keep workers separate from moving plant such as excavators. Where this is not possible use safe systems of work to prevent people being struck.

Plant operators should be competent.

Undermining Nearby Structures

Make sure excavations do not affect the footings of scaffolds or the foundations of nearby structures. Walls may have very shallow foundations, which can be undermined by even small trenches.

Decide if the structure needs temporary support before digging starts. Surveys of the foundations and the advice of a structural engineer may be needed.

Avoiding Underground Services

Look around for obvious signs of underground services, e.g. valve covers or patching of the road surface.

Use locators to trace any services. Mark the ground accordingly.

Make sure that the person supervising excavation work has service plans and knows how to use them. Everyone carrying out the work should know about safe digging practices and emergency procedures.

Access

Provide good ladder access or other safe ways of getting in and out of the excavation.

Fumes

Exhaust fumes can be dangerous. Do not site petrol or diesel engine equipment such as generators or compressors in, or near the edge of, an excavation unless fumes can be ducted away or the area can be ventilated.

Protecting the Public

Fence off all excavations in public places to prevent pedestrians and vehicles falling into them.

Where children might get onto a site out of hours, take precautions (e.g. backfilling or securely covering excavations) to reduce the chance of them being injured.

Supervision

A competent person must supervise the installation, alteration or removal of excavation support.

People working in excavations should be given clear instructions on how to work safely.

Inspecting Excavations

A competent person must inspect excavations:

At the start of each shift before work begins.

After any event likely to have affected the strength or stability of the excavation.

After any accidental fall of rock, earth or other material.

A written report should be made after most inspections. Stop work if the inspection shows the excavation to be unsafe.

Legal Requirements

Health and Safety at Work etc. Act 1974. Management of Health and Safety at Work Regulations 1999. Provision and Use of Work Equipment Regulations 1998. Construction (Design and Management) Regulations 2007.