

Before the Visit

Obtain landowner permission and advise them beforehand that use of an excavator is proposed. Agree with the landowner the condition the site is to be left in after the dig (see At the End of the Visit below). Also obtain permission if the excavator has to pass over ground owned by other landowners. Check for below ground and above ground utilities within the working area and access route to it prior to considering use of an excavator. **Under no circumstances should excavators be used where a machine would have to pass under an overhead electricity line or work within 10m of one.**

Check the area of proposed excavation for known and potential mineshafts or other underground voids by obtaining available mining maps and records beforehand and agree the suitability of the site for excavation with the proposed excavator company or qualified operator. **Under no circumstances should excavations be undertaken within potential failure cones of shaft tops or voids.** If in doubt do not excavate. Ensure excavator routes to the working area do not cross known or potential shafts.

If the excavator is hired, confirm with the plant supplier that the machine operator holds the relevant CPCS red Trained Operator Card or blue Competent Operator Card relevant to the class of machinery being used (180° for 'JCBs' and 360° for larger rotating machines). Alternatively, in certain instances, the machine may be operated by the landowner, their staff or the excavator owner, and evidence of training may not be available. Provided the safe working practices as set out below are employed it is acceptable to work with such privately operated machinery.

During the Visit

One banksman shall be appointed by the field trip leader, ideally this person shall be the field trip leader themselves. The banksmen shall be responsible for directing the machine operator. Other persons in the group shall adhere to the banksman's instructions at all times. **No one shall enter any excavations until it has been deemed safe to do so by the banksman.**

Recheck pre-visit hazards and ensure safe clearances are marked out and maintained at all times during the visit.

Cordon off the active working area using road pins and high visibility tape before excavations commence. Ensure the cordon is sufficient to allow working room including reversing and slew distances. **Under no circumstances should persons other than the banksman enter the active working area whilst excavation is in progress.**

If the tip is covered by a vegetated layer remove this first and store in a separate area to other excavated material.

Do not excavate in areas likely to undermine structures, embankments, trees or adjoining land owned by other parties. If in doubt leave a minimum 5m standoff from the top of the excavation to any such features. Do not excavate within 20m of any railway line.

No vertical excavations deeper than 1.5m shall be entered without safe working batters being formed first. Safe batters should be judged based on ground conditions and machine operator agreement/ experience. As a general rule form batters to 30 or 45 degrees. In wet or unstable ground either form shallower temporary batters or abandon excavation.

At the End of the Visit

Backfill excavations as close as possible to original ground layers or as otherwise agreed with the landowner. Compact the ground lightly, in layers if necessary, to ensure that it is left in stable condition. This will be more relevant where excavations have been made into a slope.

If a separate vegetated layer has been stripped replace this last, level and firm lightly.

Remove all temporary pins and markings from site.

End