

Incidents Involving Poles

We have approximately 4 million poles in the UK. They are used to support the majority of our HV and LV Overhead Lines.

A large pole can weigh a quarter of a tonne, with a transformer or other equipment this will be considerably more.

The main risks from poles as assets are where they have been erected poorly, or where they have decayed in service. In this state they represent a real risk to our people and others working on or near them, since any activity on or near them may cause them to collapse.

Poor Installation

In a number of incidents poorly erected poles have fallen because basic good practice was not followed during erection.

Pole falls into Car Park

In one incident an 11kV terminal pole with a pole transformer mounted on it fell into a car park damaging eight vehicles and writing one of them off.

The direct cause of the collapse was found to be that the pole had not been installed to the correct depth. Falling poles have killed our industry colleagues in the past. Underlying and contributory causes included:

- Failure to install to correct depth, and use a baulk.
- Inadequate assessment of the site and soil conditions
- Poor supervision, quality control and auditing of the installation process.

Learning Points:

- It is important that anyone involved in the erection of poles is competent to assess site conditions and understands the importance of good installation.
- Always install poles to the correct depth.
- Robust supervision, quality control of the process is needed.

Pole falls partially as conductors and plant are taken down

In another incident a team was dismantling an OHL on sloping ground and removed the conductors on the uphill side of a pole mounted transformer. As the transformer was being removed from the pole, the pole started to fall down the slope until it was restrained by the stay wire which caught in a tree. Two linesmen were attached to the pole and one was slightly injured.

On investigation it was found that there was a void in the ground around the base of the pole, which was not visible prior to the work.

Learning Points

- If possible, complete other work on a pole before removing conductors.
- Inspect poles carefully before climbing them.
- If necessary, provide temporary support for the pole.
- Always ensure poles are installed correctly, and that backfill is properly consolidated and rammed.

Decayed Poles

There have been a number of incidents where linesmen have climbed decayed poles which have then fallen while the linesmen were on the pole. Some of these have resulted in serious injuries or fatalities, both to linesmen on the poles and to others who have been hit by the falling poles.

Learning points:

- Asset Management procedures need to ensure that decayed poles are effectively identified, recorded and removed in a timely manner.
- Always check poles first for any notices or signs indicating they have been marked as defective. Make sure you understand the system your company uses for this.
- Test every pole first using the method approved by your company. Make sure you understand how to test a pole.
- Do not climb or work upon a suspect pole unless it is supported in an approved manner.