

Coppermills cross site cable – Main cross site cable sheath test failure

Background:

The Coppermills project includes the installation of 2no parallel cross site cables, approximately 500m run each. It was agreed with the client that around 200m of the route would be installed in ducts as it runs under existing infrastructure and the remaining approx. 300m of the route direct buried as it was in green fields. After installation, both cables failed their sheath tests which is a pre-requisite for acceptance by TW. Cable type: Triple X to BS7870-4 .10: 3 X (1 X 300) CU-XLPE-MDPE 6.35-11 KV.

What did we do?

An NCO was raised for the electrical contractor requiring a suitable resolution that ensures all testing is passed. A series of tests were carried out to find locations of failures along the cable, the cable exposed to investigate the extent of damage and a suitable repair method decided upon.

After a long period of testing over multiple visits, damages to the cable sheath were still being found – due to this MWHT condemned the cable requiring a new one to be procured. The damaged locations would require either jointing or sheath repair and due to the extent in number it was unlikely that TW would accept the cable in this condition.

As all the sheath damages were found in the direct buried section of the cable installation, MWHT proposed and agreed with TW to install ducting for the entire route to minimise likelihood of damage or test failure for the new cable.



Key Learning Points

- Ducting as a method of installation can limit damages to the cable sheath as direct access to the cable is limited.
- For high value/sensitive projects, having specialists (such as CCI) to witness cable testing and installation is worthwhile.
- Carry out sheath tests on the cable at key points e.g. pre delivery, post delivery to site, post installation.
- Review Contractor feedback across the business prior to contract award

If you have any questions, please contact your quality advisor.

