

A SURVEY OF EXTRUDED HV CABLE PERFORMANCE

During 1972 a conference was held in the USA where 19 papers were presented on early failures on XLPE cables throughout the USA and Japan. The cause of failure, 'water-treeing', was a new mode of breakdown in polyethylene and the papers could give little guidance as to why this kind of failure occurred and how it could be avoided. In view of this a study was initiated to assess whether cable installed on the Liverpool PTE area was satisfactory as regards 'water-treeing'. Approval was given for a survey to be carried out of British experience with XLPE cable, involving discussions with manufacturers and other interested bodies.

This report assesses the opinions of the interested parties within these organisations, describes the background to the reported cable failures and summarises the evidence for and against the use of extruded plastic cable at this time.