

ENVIRONMENTAL FACTORS IN THE TRACKING PERFORMANCE OF PLASTICS INSULATORS

Tracking on plastics insulators is caused by surface leakage current and 'drybanding'. The leakage current is due to wetting of both soluble and insoluble pollution by rainfall, fog or dew formation. For tracking to occur, the leakage current must be in the range 0.5-5mA. The life of plastics insulators outdoors depends on the total number of surface discharges which take place in the above current range, and on the nature of the insulating material.

In order to establish the effect of atmospheric conditions on insulator performance, pollution and weather monitoring equipment was established at three sites. The report analyses the weather conditions at the test sites and grades the sites in order of severity as regards tracking of insulators. It includes an assessment of what combinations of weather and pollution conditions lead to most rapid failure of insulators.