

Operational Sharing 04: 34.5-kV Underground Cable Failure - Case Study

Authors: Mohammed Balhaddad (SABIC-AN), Prashant Karle (SABIC-AN)

Abstract:

Most of the industries are still using underground cables in order to supply power to their facilities. These industries remain much concerned about the design, manufacturing and installation of the cables due to their high initial cost and difficulties for troubleshooting. In general, improper cable installation, exposure to water, acidic & other soil contaminants, improper end terminations/splicing are the major concern for the cable outages..

This paper is to investigate a real cases of 34.5-kV underground cable failures in one of the plant which led to plant interruptions. These cables were installed in Yr. 2015 and commissioned in Mar. 2017. Since commissioning, we encountered 03 major failures, which caused plant interruptions and put the production in risk.