The Ageing and Management of Polymeric (PVC) Insulated Cables

Tony Hollingsworth, CPEng, FIEAust

Joint Electrical and Electronics Papers

EVENT DETAILS

Date: Wednesday, 10 July 2013

Time: 5.45pm

Venue:

Auditorium Engineers Australia 712 Murray Street West Perth

Cost:

EA, IET & IEEE Members – Free Non members - \$30

RSVP:

Essential by COB Tuesday, 9 July 2013

To register please click here













Electrical insulation is one of the more important attributes for any power system as the quality of the insulation plays a pivotal role in determining system component reliability. In the case of power cables, insulation quality is arguably the single most important aspect in determining long term reliable operation. The insulation of otherwise identical cables may experience ageing, and eventual degradation, that could be quite dissimilar between different service conditions. Cable ageing is an issue that has been relevant to electrical engineering for some time. Typical of this has been the ageing of old "Oiled Paper" and VRI cables that have largely been replaced by asset owners with the introduction of polymeric cables.

The advent of polymeric cables in the middle of the last century, saw the beginning of an era of relatively stable cable technology. However many of these cables have been in service for over 40 years and they too, are now exhibiting signs of ageing. Research has been conducted into the modalities of this ageing process by a number of agencies around the world with a view to establishing an effective



service life and appropriate management options for even prolonging the life of these cables.

This presentation summarises research papers that discuss the potential modes of polymeric cable aging with a particular emphasis on the modes of aging of PVC insulated cables. The manner in which these modalities present in ageing cables will also be discussed, along with possible maintenance regimes for managing ageing cable networks.

ABOUT THE SPEAKER



Tony Hollingsworth, member of the Institute of Engineers Australia, Western Australia branch, electrical panel with over 30 years experience in the paper, mining, manufacturing and building services industries.

He recently has been consulting to heavy industry, in regard to cable management practices and is passionate about providing opportunities for professional development of electrical engineers. He is a registered engineer and is a fellow of the Institute of Engineers Australia.

> 712 Murray Street, West Perth WA 6005 Phone: (08) 9321 3340 | Fax: (08) 9481 4332 Website: www.engineersaustralia.org.au/wa



