



To,
High Voltage Equipment Asset Manager/ Manufacturer,

SUBJECT: CIGRÉ SURVEY ON MANAGEMENT OF AGEING HV EQUIPMENT

Dear Sir/ Madam,

BACKGROUND: Managing an ageing high voltage asset population is a key challenge for utilities and other asset owners. Effective management of these assets delivers the best value both to asset owners and utility customers. In the current environment, as many high voltage equipment assets are coming of age, the affordability, access and deliverability constraints present a much greater challenge. A recent CIGRÉ investigation on reliability showed that ageing is the single largest contributing factor on major and minor failures of high voltage equipment. Knowledge of asset ageing phenomenon and possible mitigation techniques will assist asset owners to effectively and efficiently manage their assets.

THE WORKING GROUP: Definitive guidance and recommendations in the area of management of ageing high voltage equipment is not readily available. CIGRÉ has established a working group¹ with an objective to provide industry experience on ageing of high voltage equipment, factors that influence ageing, and possible techniques for detection and mitigation of ageing. This will include guidance on life time assessment and life extension techniques. The outcome of the working group will be a technical publication in the form of a comprehensive CIGRÉ brochure.

THE SURVEY: For each of the equipment items being evaluated, the Working Group has developed “Ageing Tables” which describe possible ageing phenomena and their consequences, stress factors, detection techniques, and possible mitigation techniques. As a part of this work, the working group is undertaking a comprehensive review (this survey) of the field experience regarding equipment ageing and associated management practices. The survey will assist in providing a view of actual experience in the field to be used in conjunction with the “Ageing Tables”. The survey is focused on equipment $\geq 60\text{kV}$ and includes circuit breakers, disconnectors/ earth switches, instrument transformers, surge arrestors, capacitors and post insulators. It has two focus areas – general questions on practices and more detailed questions on ageing phenomenon of the high voltage equipment.

¹ CIGRÉ Working Group A3.29 : Management of Ageing high voltage substation equipment and possible mitigation techniques



High voltage equipment asset managers (both utility and private) and equipment manufacturers are being contacted to participate in this survey. We have identified you as a key asset manager/ equipment manufacturer and value your participation in this survey. The survey pack is attached and includes:

1. The survey questionnaire (xls file)
2. A user manual (to assist in responding to the survey) (pdf file)

The Working Group would appreciate the survey responses to be returned by **1 October 2014**. All survey responses should be returned to e-mail address **cigrewga329@conedify.com**. The data from the survey will be discussed anonymously even within the CIGRÉ WG A3.29 and it will be presented anonymously in the report so that your responses are retained confidential.

CIGRÉ hopes that your organization will be able to participate in this survey. We believe the information to be gained on this increasingly important topic will be well worth the effort spent participating in the survey. If you have any questions on the survey or the efforts of the Working Group in general, please contact me.

A handwritten signature in blue ink, appearing to read "Ankur", with a horizontal line extending to the right.

Ankur Maheshwari
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About CIGRÉ and its publications:

Founded in 1921, CIGRÉ, the Council on Large Electric Systems, is an international non-profit association for promoting collaboration with experts from all around the world by sharing knowledge and joining forces to improve electric power systems of today and tomorrow. Further details on CIGRÉ, its organization and its activities can be found at www.cigre.org. Research studies carried out by CIGRÉ Study Committees are published as technical documents and can be accessed from CIGRÉ online library, (see link <http://www.cigre.org/Publications>), one of the most comprehensive accessible databases of relevant technical works on power engineering.