

# **EEMUA Publication 227**

## **Management of ageing electrical assets**

**PUBLICATION 227**

**Edition 1**

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## **Management of ageing electrical assets**

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**Edition 1**

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# Preface

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The idea of 'Asset Management' has been around for a long time. EEMUA itself was originally founded in 1949 with the tagline "Leadership in industrial asset management" and has been instrumental in promoting good practice ever since. More recently however, it has developed into an engineering discipline in its own right, with increasing emphasis on the systems used by organisations to manage their assets over their full lifecycle.

To that end, plenty of guidance has been written that outlines general good practice, and some (including the Health and Safety Executive Research Report 823 Plant Ageing Study) has been published that specifically focuses on the management of ageing assets. Over time however, the members of EEMUA's Electrical Engineering Committee (ELC) found themselves discussing issues related to ageing electrical assets more and more frequently. With increasing UK regulator focus on the topic, it was clear that guidance more tailored to specific equipment types was required, not only to help improve standards across industry but also to help agree on accepted good practice.

This publication does not therefore aim to cover old ground but rather focus on equipment specific details such as failure rates, maintenance regimes and life extension techniques.

I hope you find this guidance useful and if you would like to contribute to future editions as we plan to expand the number of equipment types covered, please do get in touch.

Huw Jones  
Chairman, EEMUA Electrical Committee

# Abbreviations/Acronyms used in this guide

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|       |                                            |
|-------|--------------------------------------------|
| ACB   | Automatic Circuit Breaker                  |
| AGSC  | Air Gap Search Coil                        |
| ANSI  | American National Standards Institution    |
| AVR   | Automatic Voltage Regulator                |
| DER   | Distributed Energy Resource                |
| DGA   | Dissolved Gas Analysis                     |
| ELCID | Electromagnetic Core Imperfection Detector |
| EPDM  | Ethylene Propylene DiMonomer               |
| EPR   | Ethylene Propylene Rubber                  |
| EU    | European Union                             |
| HFCT  | High Frequency ferrite Current Transformer |
| HMI   | Human Machine Interface                    |
| HSE   | Health and Safety Executive (UK)           |
| HV    | High Voltage                               |
| IEC   | International Electrotechnical Commission  |
| IDMT  | Inverse Definite Minimum Time              |
| IGBT  | Insulated Gate Bipolar Transistor          |
| IR    | Insulation resistance                      |
| ISO   | International Standards Organization       |
| IT    | Information Technology                     |
| LV    | Low Voltage                                |
| MV    | Medium Voltage                             |
| NiCad | Nickel-Cadmium                             |
| PCB   | Polychlorinated Biphenol                   |
| PD    | Partial discharge                          |
| PE    | Polyethylene                               |
| PI    | Polarization Index                         |
| PVC   | Polyvinylchloride                          |