

Australian Standard[®]

Maintenance of electrical switchgear



This Australian Standard® was prepared by Committee EL-007, Power Switchgear. It was approved on behalf of the Council of Standards Australia on 8 November 2007. This Standard was published on 5 February 2008.

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- Australian British Chamber of Commerce
 - Australian Electrical and Electronic Manufacturers Association
 - Australian Railway Association
 - Energy Networks Association
 - Engineers Australia
 - Testing interests
-

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PREFACE

This Standard was reviewed by the Standards Australia Committee EL-007, Power Switchgear, to supersede AS 2467—1981.

This Standard is republished from AS 2467—1981, without technical alterations.

Referenced Standards have been updated.

The objective of this Standard is to provide basic recommendations for the safety of personnel in proximity to or engaged in maintenance of electrical switchgear and includes detailed recommendations for particular types of switchgear.

This Standard sets out a standard of good practice and generally takes the form of recommendations. Compliance with it does not confer immunity from relevant statutory and legal requirements (see Clause 1.3).

The terms 'normative' and 'informative' are used to define the application of the Appendix to which they apply. A normative Appendix is an integral part of a standard, whereas an informative Appendix is only for information and guidance.

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STANDARDS AUSTRALIA

Australian Standard
Maintenance of electrical switchgear

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard sets out procedures and recommendations for the maintenance of electrical switchgear. It is applicable to electrical switchgear having rated voltages not greater than 145 kV. At voltages above this level the design of equipment, system operations and consequently maintenance requirements and practices may differ significantly from those at voltages up to this level. However, the principles formulated in this Standard as good practice, especially those regarding the safety of personnel, are for the most part applicable at the higher voltages.

The Standard does not apply to the maintenance of electrical switchgear—

- (a) of sealed construction intended only to be returned to the manufacturer for adjustment and repair; or
- (b) used in explosive atmospheres and in coal mines. Reference should be made to appropriate Standards for the maintenance of electrical equipment used in explosive atmospheres and in coal mines.

1.2 RATIONALE

Electrical switchgear, by the nature of the service it renders, does not automatically call for the maintenance attendance which is necessary to ensure its effective functioning at all times. Its normally quiescent state does not generally draw attention to incipient faults or deterioration or to the danger resulting from neglect.

It follows therefore that only an organized system of routine maintenance planned to include all necessary details can ensure continued safe and satisfactory operation of an electrical system with a minimum risk of breakdown and the consequent interruption of supply.

NOTE: In this Standard, the words 'examination' and 'inspection' have a meaning strictly as defined in Clause 1.6.4 and 1.6.6 respectively.

1.3 OBJECT

The object of this Standard is to provide in a convenient form a record of those matters which technical knowledge and experience have shown to be important in keeping electrical switchgear, both indoor and outdoor, and its associated apparatus in an acceptable condition. It also draws attention to the precautions which should be observed in order to secure the safety of personnel while maintenance is in progress, and in this respect the following matters are covered:

- (a) Safety rules.
- (b) Safety features of equipment.
- (c) Measures to minimize hazards to plant and to ensure continuity of service.
- (d) The use of electrical testing to detect insulation weakness or the deteriorating condition of insulation.