



## **High-voltage switchgear and controlgear**

### **Part 4: Handling procedures for sulphur hexafluoride (SF<sub>6</sub>) and its mixtures**



This Australian Standard® was prepared by Committee EL-007, Industrial Switchgear and Controlgear. It was approved on behalf of the Council of Standards Australia on 12 December 2014.

This Standard was published on 28 January 2015.

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The following are represented on Committee EL-007:

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  - Ausgrid
  - Energy Networks Association
  - Engineers Australia
  - University of New South Wales
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This Standard was issued in draft form for comment as DR AS IEC 62271.4:2014.

Standards Australia wishes to acknowledge the participation of the expert individuals that contributed to the development of this Standard through their representation on the Committee and through the public comment period.

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Australian Standard<sup>®</sup>

## High-voltage switchgear and controlgear

### Part 4: Handling procedures for sulphur hexafluoride (SF<sub>6</sub>) and its mixtures

First published as AS IEC 62271.4:2015.

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Published by SAI Global Limited under licence from Standards Australia Limited, GPO Box 476, Sydney, NSW 2001, Australia

ISBN 978 1 74342 956 3

## PREFACE

This Standard was prepared by the Standards Australia Committee EL-007, Industrial Switchgear and Controlgear.

The objective of this Standard is to provide procedures for handling of SF<sub>6</sub> during installation, commissioning, normal and abnormal operations, and disposal at the end-of-life of high-voltage switchgear and controlgear.

This Standard is identical with, and has been reproduced from IEC 62271-4 Ed.1.0 (2013), *High-voltage switchgear and controlgear assemblies, Part 4: Handling procedures for sulphur hexafluoride (SF<sub>6</sub>) and its mixtures*.

As this Standard is reproduced from an International Standard, the following applies:

- (a) In the source text ‘this part of IEC 62271’ should read ‘this Australian Standard’.
- (b) A full point substitutes for a comma when referring to a decimal marker.

References to International Standards should be replaced by references to Australian Standards, as follows:

<i>Reference to International Standard</i>		<i>Australian Standard</i>	
IEC		AS	
60050	International Electrotechnical Vocabulary	1852	International electrotechnical vocabulary
60050-441	Chapter 441: Switchgear, controlgear and fuses	1852.441	Chapter 441: Switchgear, controlgear and fuses
60050-601	Chapter 601: Generation, transmission and distribution of electricity—General	1852.601	Chapter 601: Generation, transmission and distribution of electricity—General
62271	High-voltage switchgear and controlgear	62271	High-voltage switchgear and controlgear
62271-1	Part 1: Common specifications	62271.1	Part 1: Common specifications

Only normative references that have been adopted as Australian or Australian/New Zealand Standard have been listed.

The terms ‘normative’ and ‘informative’ have been used in this Standard to define the application of the annex to which they apply. A ‘normative’ annex is an integral part of a Standard, whereas an ‘informative’ annex is only for information and guidance.

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## INTRODUCTION

As agreed with TC 10, annexes A, E, F, G, H and I will be removed from this document as soon as the revised editions of IEC 60376 and IEC 60480 have been published.

## AUSTRALIAN STANDARD

**High-voltage switchgear and controlgear**

## Part 4:

Handling procedures for sulphur hexafluoride (SF<sub>6</sub>) and its mixtures**1 General****1.1 Scope**

This part of IEC 62271 applies to the procedures for handling of SF<sub>6</sub> during installation, commissioning, normal and abnormal operations, disposal at the end-of-life of high-voltage switchgear and controlgear.

These procedures are regarded as minimum requirements to ensure the safety of personnel working with SF<sub>6</sub> (see Annex B) and to minimize the SF<sub>6</sub> emission to the environment.

This standard generally applies also to gas mixtures containing SF<sub>6</sub>. The particularities for their handling are covered in Annex J.

NOTE 1 Throughout this standard, use of the term High-Voltage (refer to IEC 60050-601:1985, 601-01-27) means a rated voltage above 1 000 V. However the term Medium Voltage (refer to IEC 60050-601: 1985, 601-01-28) is commonly used for distribution systems with voltages above 1 kV and generally applied up to and including 52 kV.

NOTE 2 Throughout this standard, the term "electric power equipment" stands for "high-voltage and medium-voltage switchgear and controlgear".

NOTE 3 Throughout this standard, the term "pressure" stands for "absolute pressure".

**1.2 Normative references**

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60050-441, *International Electrotechnical Vocabulary – Chapter 441: Switchgear, controlgear and fuses*

IEC 60050-601, *International Electrotechnical Vocabulary – Chapter 601: Generation, transmission and distribution of electricity – General*

IEC 60376, *Specification of technical grade sulphur hexafluoride (SF<sub>6</sub>) for use in electrical equipment*

IEC 60480, *Guidelines for the checking and treatment of sulphur hexafluoride (SF<sub>6</sub>) taken from electrical equipment and specifications for its re-use*

IEC 62271-1, *High-voltage switchgear and controlgear – Part 1: Common specifications*

EN 1089-3, *Transportable gas cylinders. Gas cylinder identification (excluding LPG). Colour coding*