AS IEC 61511.1:2018
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Australian STANDARD

Functional safety—Safety instrumented systems for the process industry sector

Part 1: Framework, definitions, system, hardware and application programming requirements

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AS IEC 61511.1:2018

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Australian Computer Society
Australian Industry Group
Australian Petroleum Production and Exploration Association
Consult Australia
Institute of Instrumentation, Control and Automation Australia
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Preface

This Standard was prepared by the Standards Australia Committee IT-006, Industrial Process Measurement, Control and Automation, to supersede AS IEC 61511.1—2004.

The objective of this Standard is to specify requirements for the specification, design, installation, operation and maintenance of a safety instrumented system (SIS), so that it can be used to achieve or maintain a safe state of the process. AS IEC 61511.1 has been developed as a process sector implementation of the AS IEC 61508 series.

This Standard is identical with, and has been reproduced from, IEC 61511-1:2016, *Functional safety—Safety instrumented systems for the process industry sector—Part 1: Framework, definitions, system, hardware and application programming requirements* and its Amendment No. 1 (2017), which has been added at the end of the source text.

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FOREWORD

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International Standard IEC 61511-1 has been prepared by subcommittee 65A: System aspects, of IEC technical committee 65: Industrial-process measurement, control and automation.

This second edition cancels and replaces the first edition published in 2003. This edition constitutes a technical revision. This edition includes the following significant technical changes with respect to the previous edition:

- references and requirements to software replaced with references and requirements to application programming;
- functional safety assessment requirements provided with more detail to improve management of functional safety.
- management of change requirement added;