AS/NZS IEC 60812:2020
IEC 60812:2018

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Australian/New Zealand Standard™

Failure modes and effects analysis (FMEA and FMECA)

AS/NZS IEC 60812:2020

This Joint Australian/New Zealand Standard™ was prepared by Joint Technical Committee QR-005, Dependability. It was approved on behalf of the Council of Standards Australia on 23 March 2020 and by the New Zealand Standards Approval Board on 5 February 2020.

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Asset Management Council (Australia)
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Engineers Australia
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Preface

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee QR-005, Dependability, to supersede AS IEC 60812—2008, *Analysis techniques for system reliability — Procedure for failure mode and effects analysis (FMEA)*.

The objective of this Standard is to explain how failure modes and effects analysis (FMEA), including the failure modes, effects and criticality analysis (FMECA) variant, is planned, performed, documented and maintained.

The purpose of failure modes and effects analysis (FMEA) is to establish how items or processes might fail to perform their function so that any required treatments could be identified. An FMEA provides a systematic method for identifying modes of failure together with their effects on the item or process, both locally and globally. It may also include identifying the causes of failure modes. Failure modes can be prioritized to support decisions about treatment. Where the ranking of criticality involves at least the severity of consequences, and often other measures of importance, the analysis is known as failure modes, effects and criticality analysis (FMECA).

This document is applicable to hardware, software, processes including human action, and their interfaces, in any combination.

An FMEA can be used in a safety analysis, for regulatory and other purposes, but this being a generic Standard, does not give specific guidance for safety application.

This Standard is identical with, and has been reproduced from, IEC 60812:2018, *Failure modes and effects analysis (FMEA and FMECA)*.

As this document has been reproduced from an International Standard, a full point substitutes for a comma when referring to a decimal marker.

Australian or Australian/New Zealand Standards that are identical adoptions of international normative references may be used interchangeably. Refer to the online catalogue for information on specific Standards.

The terms “normative” and “informative” are used in Standards to define the application of the appendices or annexes to which they apply. A “normative” appendix or annex is an integral part of a Standard, whereas an “informative” appendix or annex is only for information and guidance.

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