



ISO 12749-5

Nuclear energy, nuclear technologies, and radiological protection — Vocabulary —

Part 5: Nuclear reactors

Énergie nucléaire, technologies nucléaires, et radioprotection — Vocabulaire —

Partie 5: Réacteurs nucléaires

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Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
3.1 General terms related to nuclear reactors	1
3.2 Terms related to nuclear fission	3
3.3 Terms related to nuclear reactor types	6
3.4 Terms related to nuclear power plants	8
3.5 Terms related to research reactors	10
3.6 Terms related to special-purpose reactors	13
3.7 Terms related to nuclear projects	14
3.8 Terms related to structures, systems and components	17
3.9 Terms related to nuclear power plant operations and support	22
3.10 Terms related to nuclear safety in reactor design and operation	26
Annex A (informative) Methodology used in the development of the vocabulary	32
Bibliography	44
Alphabetical index	45

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This document was prepared by Technical Committee ISO/TC 85, *Nuclear energy, nuclear technologies, and radiological protection*.

This second edition cancels and replaces the first edition (ISO 12749-5:2018), which has been technically revised.

The main changes are as follows:

- the addition of the following sentence in the Scope: “The scope of this document does not cover nuclear fusion reactors.”
- the updated of all the sources of the terminological entries.
- the addition of the heading “Terms related to nuclear fission”.
- the deletion of the heading “Terms related to multiple-purpose reactors”.

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This document provides terms and definitions for main concepts in the whole field of nuclear reactor science, technology, engineering, projects and operations, excluding quantitative data. Terminological data are taken from ISO standards developed by TC 85/SC 6, from other technically validated documents issued by international organizations, especially IAEA and IEC, while several definitions have been drafted by WG 1 experts based on their experience and after detailed discussions on concept characteristics, the best wording for their designations and definitions, as well as the most important links between concepts.

In most cases, international consensus exists among the communities of nuclear reactor specialists worldwide, on the most relevant concepts in the nuclear reactor field. Nevertheless, clear, and unambiguous terms for these concepts are also needed.

The foregoing should also be considered together with the fact that many people are involved in the broad nuclear reactor field, having different scopes and levels of scientific and technical knowledge, and frequently having very specific activities within that broad field. Thus, there can be different understandings and assumptions about concepts. Hence, the result could be a poor communication that might lead into unexpected, different risky situations or consequences, if a conceptual difference is behind.