

Nuclear Safety-Related Concrete Structures— Code Requirements and Commentary

Reported by ACI Committee 349

ACI CODE-349-23



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An ACI Standard

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This Code covers the design and construction of concrete structures that form part of a nuclear facility and that have nuclear safety-related functions but does not cover concrete reactor vessels and concrete containment structures, as defined by ASME BPVC Section III Division 2:2019, or steel-plate composite walls and steel-plate composite slabs, as defined by ANSI/AISC N690.

The structures covered by this Code include concrete structures inside and outside the containment system.

This Code may be referenced and applied subject to agreement between the owner and the Regulatory Authority.

The format of this Code is such that it depends on the “Building Code Requirements for Structural Concrete (ACI CODE-318-14)” and should be used in conjunction with that Code. Unless otherwise stated, all instances of ACI 318 are referring to ACI CODE-318-14. When searching for subsections, tables, and figures in this Code, first refer to the main section of this Code to see if it is included and to find potential exceptions to the corresponding subsection, table, or figure in ACI-318.

The Commentary, which is presented after the Code, discusses some of the considerations of ACI Committee 349 in developing “Code Requirements for Nuclear Safety-Related Concrete Structures (ACI 349).” This information is provided in the Commentary because the Code is written as a legal document and therefore cannot present background details or suggestions for carrying out its requirements.

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