

甲 第347号証

IAEA

SAFETY

STANDARDS

SERIES

Seismic Design
and Qualification for
Nuclear Power Plants

SAFETY GUIDE

No. NS-G-1.6



IAEA
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experience is discussed in Section 6. Section 7 presents guidance on recommended seismic instrumentation, and suitable monitoring procedures and their relation to design assumptions.

2. GENERAL SAFETY CONCEPTS

SCOPE

2.1. This section makes recommendations on categorizing the structures, systems and components (SSCs) of a nuclear power plant in terms of their importance to safety in the event of a design basis earthquake, in accordance with the requirements established in *Safety of Nuclear Power Plants: Design* [1]. Recommendations are also made concerning the application of standards for design to guarantee an appropriate safety margin in the design.

2.2. A quality assurance programme is required to be established and implemented to cover items, services and processes that affect safety and are within the scope of this Safety Guide (Ref. [1], paras 3.14–3.16). The quality assurance programme is required to be implemented to ensure that data collection, data processing, studies, analyses and qualification, code validation (software) and verification, and other activities necessary to meet the recommendations of this Safety Guide are performed correctly [11, 12].

DESIGN BASIS EARTHQUAKE

2.3. According to Ref. [2], two levels of ground motion hazard should be evaluated for each plant sited in a seismic area. Both hazard levels should generate a number of design basis earthquakes grouped into two series, seismic level 1 (SL-1) and seismic level 2 (SL-2), following the procedures outlined in Ref. [2] and according to the target probability levels defined for the plant design⁴.

⁴ In some States, SL-2 corresponds to a level with a probability of being exceeded in the range 1×10^{-3} to 1×10^{-4} (mean values) or 1×10^{-4} to 1×10^{-5} (median) per reactor per year and SL-1 corresponds to a level with a probability of being exceeded of 1×10^{-2} (mean value) per reactor per year.

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和訳 4頁脚注4

いくつかの国では、SL-2が、超過確率 $10^{-3} \sim 10^{-4}$ （平均）あるいは $10^{-4} \sim 10^{-5}$ （最頻値）（炉年）の範囲の水準に相当し、SL-1が超過確率 10^{-2} 炉年の水準に相当する。