Leadership in Science and Technology



March 2, 1993

Mr. James Wilson, Project 669 U.S. Nuclear Regulatory Commission Washington, D.C. 20555

Subject: Changes to Utility Requirements, Chapter 1

Dear Mr. Wilson:

Attached are two changes to Chapter 1 of the Utility Requirements Document (URD).

- Attachment A: A correction to the change submitted 2/23/93.
- Attachment B: Change to Section 11.8.5 of Chapter 1, both Volumes. This addresses DSER issue P.10.0-65.

Please contact John Trotter (415/812-2810) if you have any questions on this matter.

Sincerely,

J. C. DeVine, Jr. Senior Program Manager Advanced LWR Program

cc: Document Control Desk

JDC/L4/SE



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VOLUME III, CHAPTER 1: OVERALL REQUIREMENTS

Paragraph No.

Requirement

6.3 D-RAP PERFORMANCE STANDARDS

It shall be demonstrated by PRA methods that the plant design and SSC reliability and availability assumptions are sufficient to maintain the frequency of events and availabilities described in the subparagraphs of this section within the limits specified.

6.3.1 Core Damage Frequency

The mean annual core damage frequency of the design shall be evaluated using PRA. It shall be confirmed by the Plant Designer that this frequency is less than or equal to 10⁻⁵ events per reactor year, including both internal and external events (excluding abotage). We

6.3.2 Inadvertent Depressurization

Non-safety-related active RCS makeup capability and any other necessary measures shall be provided such that the chance of inadvertent RCS depressurization can be demonstrated by reliability analysis to be less than 10 percent over the entire 60-year life of the plant. Furthermore, recovery from inadvertent RCS depressurization shall be rapid enough that lifetime-average design availability requirements can still be met assuming one inadvertent RCS depressurization during the 60-year plant life. Specifically, design features shall be provided to permit recovery from an inadvertent RCS depressurization within 30 days, and this outage shall be included in the lifetime-average availability.

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D-RAP	PERFORMAN	CE STAND	ARDS	

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Use of PRA in the design process is accepted practice and is

useful to identify potential vulnerabilities which may be evident only from an integrated analysis of the entire plant.

Rationale

The PRA contains implicit assumptions regarding system, structure, and component reliability and availability. Plant operation and maintenance activities are intended to be consistent with these assumptions.

Core Damage Frequency

This requirement is very demanding from a safety perspective. It also is intended to provide adequate protection against financial itsk from loss due to a core damage accident.

Inadvertent Depressurization

Inadvertent actuation of an RCS depressurization is an event the utilities want to avoid. Avoiding this event is important from the perspective of minimizing challenges to safety systems and also from the perspective of economic consequences.

Dosign features incorporated for 6.3.2 through 6(3) shall be consistent with ALWR core damage frequency and consequences goals.

VOLUME III, CHAPTER 1: OVERALL REQUIREMENTS

Paragraph No.	Requirement	Rationale	Rev
11.8	DESIGN DEVELOPMENT PLAN (CONTINUED)	DESIGN DEVELOPMENT PLAN (CONTINUED)	1
,11.8.5	The ALWR design development plan required by Section 1.4.5 shall specifically identify the features which are incorrections for the design process. Chapter 1, "Plan the Human Factors for Program," of EPRI NP-3659, Human Factors Guide for program Plan (PFIN PP-359), Human Factors Guide for program Plan (PFIN PP-350, Human Engineering Design development plan to address human factors. This shall include the plans for the testing which is the testing which is the plan. However, the plan is the plane plane to address human factors design development plan to address human factors. This shall include the plans for the testing which is the plane. However, the plane is the plane plane to address human factors design development plan to address human factors. The plane is the plane. The plane is the plane. The plane is the	It is an ALWR policy that human factors be considered at wery step of the design process. The design development plant besign and the plant Designer has a sys- tematic human factors program which is an integral part of the total plant design and development effort.	3

Ht. B

Insert for Ch 1, Section 11.8.5, Volumes II and III

Specific features such as: 1) the reporting responsibilities and authority of the human factors staff, 2) the qualifications and number of human factors personnel, 3) job descriptions for each human factors position, 4) the role of human factors in a mutidisciplinary design team, and 5) the plans for testing which are necessary to substantiate the human factors design features of the plant shall be included in the plan.