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(NEGATIVE CONSENT)

For: The Commissioners
From: James M. Taylor
Executive Director for Operations
Subject: PROGRESS IN DOCUMENTING PRA CRITERIA FOR
HANDLING SEVERE ACCIDENT ISSUES IN THE DESIGN
OF ADVANCED REACTORS

Purpose:

To present a status report on the documentation of PRA criteria for use in the licensing reviews of advanced ALWR designs.

Summary:

A draft of the PRA regulatory guide has been prepared and reviewed by various staff groups experienced in the use of PRA methods. The ACRS has been provided copies of the draft for their information but have not yet been requested to perform a formal review since certain PRA review application issues have not been finalized in the draft. These issues are being fully developed and resolved during the ongoing finalization of the staff's SERs for the design certification of the General Electric ABWR and Combustion Engineering System 80+ designs. After resolution of these issues, as staff resources become available, the PRA regulatory guide will be revised as necessary to incorporate lessons learned from those reviews. At that time the guide will be submitted to the ACRS for formal review and subsequent preparation for public comment.

Background:

The purpose of the PRA regulatory guide is to support and to provide an interpretation of the requirement in 10 CFR 52.47 that all new reactor design license applications must include a PRA.

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NOTE: TO BE MADE PUBLICLY AVAILABLE
WHEN THE FINAL SRM IS MADE
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The guide describes acceptable standards for the scope and format of PRA submittals and addresses the uses intended for PRAs by NRC staff in assessing the applicant's safety basis for the severe accident aspects of the design. The guide is specifically directed toward design certification applications.

Discussion:

While it was originally intended that the regulatory guide would be an aid to the industry developers of the PRAs submitted for the design certification reviews of the ALWRs, and to guide staff PRA reviewers, events have occurred during the ABWR design certification review to cause the staff to view the value of the PRA and of the regulatory guide from a different perspective.

Specifically, the results of the PRA provide information useful to the licensing process for identifying the potential severe accident strengths and weaknesses for a plant design undergoing staff review for approval. Based on the staff's experience during the ABWR design certification review, the staff now believes that the PRA review can provide additional benefits, such as guidance in the identification of risk important Tier 1 and Tier 2 information and for the development of inspection, testing and acceptance criteria (ITAAC). More specifically, quantitative PRA results have been found useful in judging the relative importance of different safety systems such that information specifying the characteristics of the more important systems can be assigned to the Tier 1 category, and the lesser important systems to Tier 2. Similarly, the PRA results have also been instrumental in determining the relative importance of the inspection and testing requirements for the various systems. The staff is close to completing the SER evaluations addressing these latter issues and does not view the PRA regulatory guide as being needed in this process to maintain the design certification schedules for the ABWR or System 80+ designs.

The staff now believes that the guide should be used as a part of the documentation of the final PRA-related criteria in the reviews of the ALWR PRAs and the EPRI ALWR Requirements Document. In addition to documenting how PRA is being used in the licensing review of the advanced ALWRs, such as the ABWR and System 80+ designs, the guide should also provide a useful starting point for preparing PRA review criteria for future designs.

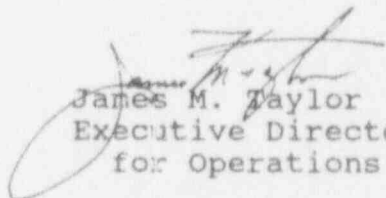
In addition, the staff plans to prepare revisions to the Standard Review Plan (SRP) that will address staff reviews of PRAs. The PRA regulatory guide would document the basis for the acceptance criteria used by the staff in their ongoing PRA reviews and would thus support the revisions to the SRP. Updates to the regulatory

guide and to the SRP will be initiated as resources currently committed to advanced reactor reviews become available.

For the reasons indicated above, the staff intends to defer formal review by the ACRS and issuance of the guide for public comment until after finalization of the staff's SERs for the ABWR and System 80+ designs. This approach will ensure that the criteria in the guide are consistent with the knowledge gained regarding use of PRA information in determining design acceptability.

Recommendations:

Unless directed otherwise by the Commission, the staff intends to finalize the regulatory guide in concert with the SRP update after finalization of the SERs for the ABWR and System 80+ designs. The staff believes that this approach will ensure that the guide accurately documents PRA needs for future plant design certification applications while also allowing the best use of staff resources.


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SECY NOTE: In the absence of instructions to the contrary, SECY will notify the staff on Wednesday, January 12, 1994, that the Commission, by negative consent, assents to the action proposed in this paper.

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