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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555

June 22, 1990

Revised

MEMORANDUM FOR: James M. Taylor
Executive Director for Operations

FROM: Samuel J. Chilk, Secretary

SUBJECT: SECY-90-146 - EVOLUTIONARY AND PASSIVE
ADVANCED LIGHT WATER REACTOR RESOURCES
AND SCHEDULES

The Commission (with all Commissioners agreeing) has disapproved the proposed revised process for the review of evolutionary and passive advanced light-water reactor (ALWR) projects.

Chairman Carr and Commissioners Roberts, Rogers and Curtiss agree that the process established by the Commission, as reflected in SECY-90-065, represents the preferred approach on how the NRC should proceed with these reviews. Consistent with the Commission's decision on SECY-89-334 (12/15/89 SRM) for the passive plants, highest priority should be awarded to the EPRI Requirements Document. The major technical and policy issues should be formally resolved in the context of the EPRI review. The staff should implement the process presented in SECY-90-065, with the understanding that the staff should not be precluded from keeping abreast of information and activities related to a specific design which could prove useful in conducting the EPRI review and in preparing for review of that specific design. Additionally, in conducting its review of the EPRI Requirements Documents and then specific designs, staff may continue with its review activities on any matters which are unaffected by technical or policy issues awaiting ACRS review and comment or Commission decision.

Resolution of major technical and policy issues in the context of the EPRI Passive requirements document prior to specific design reviews raises the question of the need for an LRB. The staff should reevaluate the need for formal review and approval of plant specific LRBs once decisions have been made and approved on the EPRI document. The Commission will consider the need for and importance of formally reviewing the LRB document once major decisions are made in the context of the EPRI document. (See SRM M900403A. at 2c dated May 1, 1990; SRM from SECY-90-139, dated May 25, 1990; and SRM M900427 at 5, dated June 18, 1990.)

SECY NOTE: TO BE MADE PUBLICLY AVAILABLE IN 10 WORKING DAYS FROM
THE DATE OF THIS SRM.

Commissioner Remick preferred the parallel approach over the serial -- one step at a time -- approach to reviewing advanced reactor designs. The parallel review approach would have minimal impact on the review schedule for the EPRI Requirements Document, but it would significantly reduce the schedule for certifying proposed plant designs. If the Commission and the ACRS are kept fully and timely apprised on all policy and unique technical issues, the parallel approach should result in similar and expeditious Commission decisions.

In regard to the AP-600 and the SBWR passive plant developmental efforts, it is Commissioner Remick's understanding that the vendors have been active participants in the development of the EPRI Requirements Document for the passive plant designs. In addition EPRI has been and will continue to be an active participant in the design of the passive reactors (e.g., committed to contribute \$30 million each to the design of the AP-600 and the SBWR passive plants). As a result, the vendors are fully aware of all industry requirements. Westinghouse, for example, has indicated that it will meet all requirements identified by the EPRI Requirements Document. The only potential deviation would result if the EPRI's document does not go far enough in assuring public health and safety as the vendor would like (e.g., use of hydrogen igniters and the location of the core makeup tanks). It is Commissioner Remick's understanding that these issues, if not already resolved, will be resolved in the very near term. The Commission's concern that the vendor's design will precede the definition of industry's needs is therefore not significant. The Commission's decision of a serial review process significantly restrains Commission and ACRS input and influence on the final design of future reactor concepts and could preclude the availability of nuclear power plants with passive designs features at the time that U.S. utilities may need to consider the nuclear option for essential capacity additions.

Chairman Carr (with Commissioner Curtiss concurring) expressed concern that staff's description of the level of design detail necessary for certification of a design appears insufficient to meet the level of design detail which is required by 10 CFR 52.47(a)(2). The detail required must be sufficient for the commission to reach a final conclusion on all safety questions associated with the design before certification. The proposed implementation plan now under preparation, should focus on this issue as well as the level of detail necessary to promote standardization and should address the extent of detail needed in the balance-of-plant description.

With regard to resources, the Chairman urged staff to apply available resources in a way that will meet or improve on the schedules for completion of the EPRI Design Requirements Documents. Commissioner Rogers would approve the staff's recommended reprogramming of resources to achieve gains in the

review schedules. However, his opinion on the sufficiency and comprehensiveness of agency resources for such reviews is still pending awaiting the results of staff's response to his April 16, 1990 request for the numbers of qualified reviewers by reactor type in NRC.

Commissioner Roberts (with Commissioner Curtiss concurring) noted his concern that there may not be sufficient incentive for EPRI to pursue early resolution of some issues. As noted in the May 25, 1990 SRM on SECY-90-139, he would be interested in hearing from the staff on ways the Commission could streamline the resolution process.

cc: Chairman Carr
Commissioner Roberts
Commissioner Rogers
commissioner Curtiss
Commissioner Remick
OGC
GPA