



OFFICE OF THE  
SECRETARY

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

December 15, 1989

MEMORANDUM FOR: James M. Taylor  
Executive Director for Operations

Carlyle Michelson, Acting Chairman, ACRS

FROM: *C.B.* Samuel J. Chilk, Secretary

SUBJECT: STAFF REQUIREMENTS - SECY-89-311 -  
RESOLUTION PROCESS FOR SEVERE ACCIDENT  
ISSUES ON EVOLUTIONARY LIGHT WATER REACTORS

In SECY-89-311, the staff requested guidance on whether:

- a. New generations of reactor designs should be demonstrably safer than the current generation, and
- b. The staff's approach to the review of evolutionary LWRs is appropriate.

The Commission, with all Commissioners agreeing, reaffirms its expectation stated in the Policy Statement on Severe Reactor Accidents Regarding Future Designs and Existing Plants, "... that vendors engaged in designing new standard (or custom) plants will achieve a higher standard of severe accident safety performance than their prior designs." In order to accomplish this goal, in promulgating 10 CFR 52, the Commission incorporated the criteria and procedural requirements from the Severe Accident Policy Statement. Generally, the Commission has indicated that it believes a new design for a nuclear power plant can be shown to be acceptable for severe accident concerns if it addresses the TMI requirements, unresolved safety issues, the medium and high priority generic safety issues, and the severe accident vulnerabilities exposed by a completed probabilistic risk assessment. In staff's application of these criteria during reviews, it is expected that significant policy questions may arise. The staff should elevate to the Commission, as early as possible, all issues dealing with policy considerations as follows:

1. Instances where staff proposes to require measures that depart from current regulatory requirements -- including, but not limited to, design enhancements to address severe accident vulnerabilities -- should be addressed in the

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licensing review basis (LRB) document prepared for a proposed design. Staff should provide comments and recommendations to the ACRS and the Commission on all future applicant proposed LRB documents, so that the Commission can provide policy guidance to the staff before the staff position on a final LRB document is established.

(EDO) (SECY Suspense: As Appropriate)

Licensing Review Basis documents should be reviewed by the ACRS and sent to the Commission for approval.

(EDO) (SECY Suspense: As Appropriate)

Vendor or EPRI goals that go beyond our regulations should not be imposed as requirements for individual designs, but the LRBs and SERs for specific designs should include a discussion of how the design compares with the EPRI design requirements document.

(EDO) (SECY Suspense: As Appropriate)

The ACRS should review both the GE ABWR and the CE System 80+ LRB documents and comment on each. The ACRS should pay particular attention to the issue of whether the approach taken in the two LRB documents is consistent.

(ACRS) (SECY Suspense: 2/23/90)

2. Staff should also advise the Commission of additional potential policy issues when they arise during the review of the advanced plants. Prior to documentation in the draft Safety Evaluation Reports, staff should provide the Commission an analysis and rationale for any proposed policy and cite how it would be applied in the SER. If ACRS review has not been provided prior to submitting the policy issue paper to the Commission, the ACRS should provide its comments to the Commission as soon as possible, in order to minimize potential delays in issuing the SERs.

(EDO/ACRS) (SECY Suspense: As Appropriate)

With adherence to the above requirements, it should not be necessary for the Commission to become involved in the review and approval of all draft/final Safety Evaluation Reports for the standard plant designs before they are issued. However, the Commission, for its information, would like to receive a copy of those SERs well in advance of issuance, with all significant policy issues highlighted and discussed in the submittal from the staff to the Commission. (See SRM on SECY-89-334 for additional guidance regarding Commission review of the EPRI Requirements Document.)

(EDO/ACRS) (SECY SUSPENSE: As Appropriate)

The Commission will provide additional guidance regarding generic rulemaking following receipt of staff's paper on Proposed Departure from Current Regulations.

(EDO)

(SECY SUSPENSE: 12/29/89)

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