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

OFFICE OF THE
SECRETARY

June 30, 1994

MEMORANDUM TO: James M. Taylor
Executive Director for Operations

FROM: John C. Hoyle, Acting Secretary

SUBJECT: SECY-94-084 - POLICY AND TECHNICAL ISSUES ASSOCIATED WITH THE REGULATORY TREATMENT OF NON-SAFETY SYSTEMS
and
COMSECY-94-024 - IMPLEMENTATION OF DESIGN CERTIFICATION AND LIGHT-WATER REACTOR DESIGN ISSUES

The Commission has made the following determinations on the staff's recommendations in SECY-94-084:

A. Regulatory Treatment of Non-Safety Systems

The Commission (with all Commissioners agreeing) has approved the staff's recommendation on RTNSS. However, the Westinghouse comments on this item, as stated in the Attachment to NTD-NRC-94-4145 should be accommodated.

The Chairman believes that the licensees should use the complete plant PRA as opposed to the "focused PRA" to provide an integrated assessment of the relative importance of various systems and components. The focused PRA model does not include some non-safety systems whose performance would affect the calculated risk contribution. Other methods, perhaps utilizing risk importance measures, could be identified which still incorporate the information of the complete PRA. The Chairman requested that the staff evaluate this approach.

B. Definition of Passive Failure

The Commission (with all Commissioners agreeing) has approved the staff's recommendation on this item.

SECY NOTE: SECY-94-084 WAS RELEASED TO THE PUBLIC ON APRIL 7, 1994. THIS SRM AND THE VOTE SHEETS OF ALL COMMISSIONERS WILL BE MADE PUBLICLY AVAILABLE 10 WORKING DAYS FROM THE DATE OF THIS SRM.

Commissioner de Planque cautioned that in some situations, a design that considers such failures may overall be less reliable (due to added complexity, new failure modes) than one where the valve is treated as passive.

C. Safe Shutdown Requirements

The Commission (with all Commissioners agreeing) has approved the staff's recommendation on this item. With respect to the 72-hour capacity of the passive RHR system water pool, the requirements for replenishing the water in the pool should be based on design-specific attributes, and the justification presented by the applicant should not be based solely on the URD 72-hour criterion. The staff should be receptive to arguments for longer periods, if technically justified.

D. Control Room Habitability

The Commission (with all Commissioners agreeing) has decided to defer decision on this issue until the staff and the applicant can discuss the issue at greater length to resolve whether to require testing of the leak tightness of the control room at every reload outage. When the staff returns with a recommendation, it should also address whether, and if so, how the control room should be manned during the 72-hour testing proposed for each refueling outage.

E. Reliability Assurance Program (RAP)

The Commission (with all Commissioners agreeing) is in agreement with the general purpose of the RAP. The staff should modify the statement of purpose to read as follows:

> "...to provide reasonable assurance that (1) an ALWR is designed, constructed, and operated in a manner that is consistent with the ~~reliability~~ assumptions and risk insights for these risk-significant SSCs, (2) the ~~reliability of these~~ risk-significant SSCs do not degrade to an unacceptable level during plant operations, (3) the frequency of transients that challenge ALWR SSCs are minimized, and (4) these SSCs function reliably when challenged."

The requirement for the D-RAP should be monitored within the bounds of the Commission's Safety Goals Policy, including the approved subsidiary objectives. The staff should address how it will monitor licensees' reliability assurance efforts without effectively translating industry design reliability assumptions into new regulatory requirements which result in CDF and CCFP values that are lower than the subsidiary objectives which the Commission approved for use.

(References: SRM on SECY-89-311, December 15, 1989; SRM on SECY-89-102, June 15, 1990; and SRM on SECY-90-016, June 26, 1990).

The Commission (with all Commissioners agreeing) has approved D-RAP subject to the resolution of the OGC recommendation to implement the D-RAP using the ITAAC process.

The Commission (with all Commissioners agreeing) has disapproved the staff's proposal to require that an O-RAP be continued for the life of the COL license. The staff should ensure that the objectives of the O-RAP are incorporated into existing programs for maintenance or quality assurance.

F. Station Blackout

The Commission (with all Commissioners agreeing) has approved the staff's recommendation on this item.

G. Electrical Distribution

The Commission (with all Commissioners agreeing) has approved the staff's recommendation on this item.

H. Inservice Testing of Pumps and Valve

The Commission (with all Commissioners agreeing) has deferred a decision on staff's recommendation on this item. The staff should provide additional explanation on why it is necessary to require testing in both directions for valves whose safety mission is in one direction only. It is also not clear whether the blowdown valves will be required to be periodically tested at design-basis conditions, or whether the staff will accept validation through "type" testing prior to installation. For example, in Italy, Westinghouse is testing several valves under design-basis conditions. Will the staff accept these qualification tests as demonstrating the ability of the valves to fulfill their mission, or will periodic testing be required? The requirements for quarterly testing during operation should be determined from a risk perspective, e.g. balancing the risks of testing against the benefits of a simpler design (that might result if testing during operation is not to be done). (See also comment on B above). Valves should be tested under design basis differential pressure and flow during power operation only if the benefits of the test outweigh the potential risk. These issues require further discussion prior to a Commission decision.

The Commission has made the following determinations on the staff's recommendations in COMSECY-94-024:

A. Level of Design Detail Including DAC

The Commission (with all Commissioners agreeing) has approved the staff's recommendation to use of design acceptance criteria (DAC) in the certification process. The Commission assumes and expects the staff to obtain all the information it requires to render its safety decisions.

B. The Two-Tiered Design Certification Rule Structure

The Commission (with all Commissioners agreeing) has approved the staff's recommendation for a two-tiered design certification rule structure.

C. The Tier 2* Information Category

The Commission (with all Commissioners agreeing) has approved the staff's use of a Tier 2* information category to identify certain Tier 2 information that would require prior NRC approval before it could be changed by a COL applicant or licensee.

D. The Reliability Assurance Program

This issue is addressed in item E. above.

cc: The Chairman
Commissioner Rogers
Commissioner Remick
Commissioner de Planque
OGC
OCA
OIG
Office Directors, Regions, ACRS, ACNW, ASLBP (via E-Mail)