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January 9, 1981

The Honorable Morris K. Udall, Chairman
Subcommittee on Energy and the Environment
Committee on Interior and Insular Affairs
United States House of Representatives
Washington, D. C. 20510

Dear Mr. Chairman:

In an earlier letter to you dated October 23, 1980, we provided an assessment of the causes of the Browns Ferry Unit 3 control rod system failure, and the consequences had a control rod failure occurred under other conditions. In addition to a description of those actions taken to that date, we stated that a report of all actions taken in response to the Browns Ferry event was being prepared and would be provided.

Enclosed is a copy of that report. We will keep you informed regarding what actions we decide to take based on this report.

Sincerely,

Original Signed by
John F. Ahearne

John F. Ahearne

Enclosure:
As stated

cc: Rep. Steven Symms

Ranking Member

Cleared with all Cmrs.' Offices by SECY C/R.
Typed in final in SECY C/R.
Ref.-CR-80-197

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Originating Office: EDO/NRR

OFFICE	SECY	DOA					
SURNAME	TCombs	BEVE					
DATE	1/8/81	1/8/81					



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

December 1, 1980

MEMORANDUM FOR: Gus C. Lainas, Assistant Director
for Safety Assessment, DOL

Thomas H. Novak, Assistant Director
for Operating Reactors, DOL

Robert L. Tedesco, Assistant Director
for Licensing, DOL

FROM: Paul S. Check, Assistant Director
for Plant Systems, DSI

SUBJECT: BWR SCRAM DISCHARGE SYSTEM SAFETY EVALUATION

The enclosed report summarizes the results of our review and evaluation of the BWR scram discharge system. The report deals with Browns Ferry 3 partial scram event of June 28, 1980; subsequent investigations, tests, and analyses involving a number of operating BWRs; and failures of the scram level instruments at Brunswick and Hatch plants. Our review has considered licensee response to IE Bulletin requirements and the BWR Owners' Group proposed criteria for scram discharge volume (SDV) designs. The report specifies acceptable bases for continued BWR plant operation and provides design criteria for the SDV system. The findings of this report should be transmitted to BWR licensees and applicants for implementation. Also included as an appendix to the SER are plant-specific evaluations for each operating BWR. These evaluations provide the basis for continued operation while needed permanent modifications are being designed and implemented which will probably take about two years.

Our review has identified two additional requirements beyond those proposed by the Owners Group. The first addresses the potential for fast fill of the SDV on decaying air system pressure. An automatic air header dump will be required to initiate control rod insertion on low pressure in the control air header. This should prevent loss of scram function during certain low probability loss of air pressure events. This requirement is applicable to all licensees identified in Table 1 of the SER. It should be installed within about two months. Meanwhile the operator action to scram on low air pressure alarm, backed up by the same action on rod drift alarms and other indications, is acceptable.

The second added requirement deals with the SDV level instrumentation and addresses potential common-cause failures. It is described in Section 4.2.2.3 of the SER. This requirement together with the criteria for scram system design provide an acceptable basis for scram discharge system design, (new plants) and design modifications (operating plants).

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December 1, 1980

We have suggested acceptable ways of complying with the requirements and criteria. If a licenser or applicant chooses to employ these approved means, no further review by NRR is needed.

Under separate cover, I will shortly transmit this SER to Dave Waters, Chairman of the BWR Owners Group.



Paul S. Check
Assistant Director for Plant Systems
Division of Systems Integration

Enclosure:
As stated

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