

SEP 25 1985

MEMORANDUM FOR: James M. Taylor, Director
Office of Inspection and Enforcement

FROM: Edward L. Jordan, Director
Division of Emergency Preparedness
and Engineering Response
Office of Inspection and Enforcement

SUBJECT: MISPOSITIONED CONTROL RODS

Temporary Instruction 2515/67 directed the regional offices to conduct surveys of licensee responses to two identified safety issues: Steam Binding in Auxiliary Feedwater Systems and Mispositioned Control Rods. These issues were addressed by IE information notices (INs) and by the Institute of Nuclear Power Operations (INPO) significant event reports (SERs) and significant operating experience reports (SOERs). The SOERs contained specific recommended actions to alleviate the safety concern.

The primary purpose of our survey was to determine the actions that licensees are taking in response to the two selected safety issues. The secondary purpose was to determine the actions that licensees were taking in response to the recommendations in INPO's SOERs.

Regarding the first issue, Steam Binding in Auxiliary Feedwater Systems, the responses have been received and the report was issued July 30, 1985. Responses for the second issue, Mispositioned Control Rods, have been received and that report is enclosed. The survey indicated a high degree of industry compliance with the INPO recommendations. In view of this, we do not plan any further action on this issue.

Original Signed By:
E L Jordan

Edward L. Jordan, Director
Division of Emergency Preparedness
and Engineering Response
Office of Inspection and Enforcement

Enclosure: Summary of TI 2515/67 Responses
Second Half Mispositioned Control Rods

Contact: Mary S. Wegner, IE
492-4511

DISTRIBUTION

RHVollmer	ELJordan	SSchwartz	RLBaer
JGPartlow	DAllison	MSWegner	BKGrimes
GHolahan, NRR	CBerlinger, NRR	GGZech	CHeltemes, AEOD
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RDenise, RIV	DKirsch, RV	DCS	PDR
DEPER R/F	EGCB R/F	MWegner R/F	

*See previous concurrences

*DEPER: IE	*DEPER: IE	*PSB: IE	*DEPER: IE	DEPER: IE	DEPER: IE
MSWegner	DAllison	DGable	RLBaer	SASchwartz	ELJordan
9/5/85	9/11/85	9/13/85	9/20/85	9/24/85	9/24/85

MBM

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SUMMARY OF TI 2515/67 RESPONSES
SECOND HALF, MISPOSITIONED CONTROL RODS

For the most part, the recommendations of INPO's SOER 84-2 concerning mispositioned control rods have been implemented or justification exists where they are not. The results are summarized below.¹ Those nonconformances that do exist generally involve highly subjective questions about just how much a procedure should or should not say. In view of the high degree of conformance with the recommendations and the limited and subjective nature of the nonconformances, we do not plan any further action on this issue.

PWR Recommendation 1: 95.0% (57 of 60) had full compliance

All PWRs have procedures necessary to recover from a mispositioned rod with three partial exceptions. Robinson's and Yankee-Rowe's procedures do not require the determination of the length of time the rod has been misaligned or specify the rate of control rod movement during recovery. Palisades does not notify plant management or nuclear engineering personnel of a mispositioned rod unless a flux tilt of greater than 5% exists, nor does Palisades have procedures to determine the time of misalignment or specify the power level to recover a misaligned rod.

PWR Recommendation 2: 96.7% (58 of 60) had full compliance

All PWRs, except McGuire 1 & 2, have procedures for verifying rod position when one form of normal indication is lost.

PWR Recommendation 7: 98.3% (59 of 60) had full compliance

All PWRs, except Palisades, were reported to have provided training for operators in the proper movement of control rods, the consequences of improper movement, and the consequences of operating with a mispositioned rod. Palisades has no procedures addressing the adverse consequences of improper movements or industry operating experience related to incorrect control rod movements.

BWR Recommendation 3: 100.0% (23 of 23) had full compliance

All but 6 BWRs have procedural requirements for written instructions with management concurrence and briefing of operations personnel during rod movement when a nuclear engineer is not present. The other 6 units have a nuclear engineer present during scheduled rod moves; therefore, they do not need the procedural requirements.

BWR Recommendation 4: 95.7% (22 of 23) had full compliance

All BWRs, except Limerick, have implemented procedures which identify the conditions under which the rod worth minimizer may be bypassed.

¹ Ft. St. Vrain, an HTGR, LaCrosse, an Allis-Chalmers BWR, and Big Rock Point, an early GE BWR, were not included in this tabulation because they have little equipment that is the subject of this survey.

BWR Recommendation 5: 73.9% (17 of 23) had full compliance

Most BWRs have procedures to prohibit the use of scram timing test equipment except in testing and emergencies. Eleven BWRs do not have these procedural prohibitions, but for five units, the scram timing test equipment is not readily accessible to control room operators, thus the procedural prohibitions are not needed. FitzPatrick, Browns Ferry 1, 2, & 3, Limerick, and Oyster Creek do not have the procedural prohibition.

BWR Recommendation 6: 87.0% (20 of 23) had full compliance

Procedures containing guidelines on the appropriate use of the "emergency-in" and "notch override" switch are used by all BWRs except LaSalle 1 & 2, Vermont Yankee, and WNP-2. WNP-2 does not have an "emergency-in" mode of operation and notch control is automatically invoked by the rod control system. LaSalle 1 & 2 and Vermont Yankee procedures do not address the "emergency-in" mode.

BWR Recommendation 7: 100.0% (23 of 23) had full compliance

All BWRs reported providing training for operators in the proper movement of rods, the consequences of improper movement, the consequences of operating with a mispositioned rod and the functions of the RWM, the rod sequence control system, and the scram timing test switches.