

AUG 21 1979

~~AME Group~~

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MEMORANDUM FOR: Commissioner Bradford
THRU: Lee V. Gossick, Executive Director for Operations
FROM: Victor Stello, Jr., Director
Office of Inspection and Enforcement
SUBJECT: AUXILIARY FEEDWATER SYSTEM -- MEMORANDUM DATED
JULY 31, 1979

(Signed) T. A. Rehm

The subject memorandum raised three questions concerning the operability of auxiliary feedwater systems at operating nuclear power facilities. Questions and related responses are as follows:

Question -- If an inspector had found the auxiliary feedwater system out of service in an operating nuclear plant before Three Mile Island, what steps should have been taken?

Response -- The facility Technical Specifications establish specific operability requirements for auxiliary feedwater systems at operating facilities. A copy of related Standard Technical Specifications for Westinghouse facilities, as an example, is enclosed for your information. If an inspector detected a condition where auxiliary feedwater system operation was not in conformance with the operability and related action statement language in the facility Technical Specification, the matter would be immediately brought to the attention of on-site licensee management. Normally, licensee personnel would take prompt action to bring the facility into compliance with regulatory requirements. In the event that a licensee does not initiate prompt action, the problem would be immediately escalated to Regional Office management who would contact a higher level of licensee management to resolve the matter. The immediate efforts would be to get the system out of a degraded mode and readily available for service. If higher level action is required to accomplish this, it would be done. Once the immediate problem has been resolved, an assessment of the condition that permitted the degradation would be made. It would be discussed with Headquarters, and based on the significance of the item (i.e., simple valve closure or major breakdown in the licensee's management control system) and the licensee's past performance, appropriate followup Headquarters action would be taken. This latter action may take the form of a telephone call to senior licensee management and/or issuance of an Order. It should be noted that these actions would be completed within a short time period following detection of the problem.

Subsequent actions would include formal documentation and appropriate enforcement action which would be directed to the licensee for items of noncompliance associated with this and other regulatory requirements.

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Questions -- Was such a condition ever found? If so, what action was taken?

Response -- A survey of our Regional Offices did not reveal any instances where an auxiliary feedwater system was found to be "out of service" during a routine inspection.

One case occurred after the TMI accident which involved Arkansas Nuclear 1. This event took place on June 2, 1979, as the facility was preparing for start-up following refueling and after taking steps to comply with requirements imposed by NRC on Babcock and Wilcox designed reactors following the March 28 accident at TMI. At that time our resident inspector was performing a routine inspection and noted that the emergency feedwater system (ESF) was locked out of the automatic initiation mode. The plant was in hot shutdown condition and a main feedwater check valve back leakage surveillance test was in progress. The surveillance test procedure did not specify locking out the ESF automatic initiation feature nor assuring that the ESF automatic initiation feature would be returned to service. During a telephone conversation on June 2, 1979, a licensee Vice President agreed to immediately proceed to a cold shutdown condition and to remain in that condition until confirmation in writing by the Acting Director, IE, that the following conditions for startup had been satisfactorily accomplished: (1) the licensee shall evaluate and modify as appropriate its methods for the development, review and approval of procedures for all modes of operation; (2) the licensee shall evaluate existing procedures to assure that such procedures include all actions necessary for safety; and (3) the licensee shall take appropriate steps to assure that all plant personnel adhere to approved procedures and do not add unauthorized steps to any procedures.

The above conditions were confirmed in an Order served upon the licensee on June 2, 1979. The facility was verified by the Resident Inspector to be in cold shutdown on June 3, 1979. An Order authorizing startup was issued on June 14, 1979, after satisfactory review by the licensee of related management controls and IE's verification that acceptable licensee controls over these activities had been implemented.

Original signed by

Victor Stello, Jr.
Director
Office of Inspection
and Enforcement

Enclosures:
STS - Auxiliary Feedwater System

cc: See next page

WPU/DLM	Office	ROI:IE	ROI:IE	ROI:IE	X005:IE	AD:IE	G:IE/SC	EDO
8/9/79	Surname	FNolan	SBryan	JHoseley	GGower	DThompson	VStello	
Job H	Date	8/10/79	8/10/79	8/14/79	8/14/79	8/ /79	8/15/79	8/ /79

cc: Chairman Hendrie
Commissioner Gilinsky
Commissioner Kennedy
Commissioner Ahearne
L. Bickwit, OGC
- A. Kenneke, OPE
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PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

LIMITING CONDITION FOR OPERATION

3.7.1.2 At least three independent steam generator auxiliary feedwater pumps and associated flow paths shall be OPERABLE with:

- a. Two feedwater pumps, each capable of being powered from separate emergency busses, and
- b. One feedwater pump capable of being powered from an OPERABLE steam supply system.

APPLICABILITY: MODES 1, 2 and 3.

ACTION:

With one auxiliary feedwater pump inoperable, restore at least three auxiliary feedwater pumps (two capable of being powered from separate emergency busses and one capable of being powered by an OPERABLE steam supply system) to OPERABLE status within 72 hours or be in HOT SHUTDOWN within the next 12 hours.

SURVEILLANCE REQUIREMENTS

4.7.1.2 Each auxiliary feedwater pump shall be demonstrated OPERABLE:

- a. At least once per 31 days by:
 1. Verifying that each motor driven pump develops a discharge pressure of \geq _____ psig to a flow of \geq _____ gpm.
 2. Verifying that the steam turbine driven pump develops a discharge pressure of \geq _____ psig at a flow of \geq _____ gpm when the secondary steam supply pressure is greater than _____ psig.
 3. Verifying that each non-automatic valve in the flow path that is not locked, sealed, or otherwise secured in position, is in its correct position.

PLANT SYSTEMS

AUXILIARY FEEDWATER SYSTEM

SURVEILLANCE REQUIREMENTS (Continued)

4. Verifying that each automatic valve in the flow path is in the fully open position whenever the auxiliary feedwater system is placed in automatic control or when above 10% RATED THERMAL POWER.

- b. At least once per 18 months during shutdown by:
 1. Verifying that each automatic valve in the flow path actuates to its correct position on a _____ test signal.

 2. Verifying that each motor driven pump starts automatically upon receipt of a _____ test signal.