

November 30, 2001

MEMORANDUM TO: Ronald A. Langstaff, Sr. Reactor Engineer  
Mechanical Engineering Branch  
Division of Reactor Safety  
***/RA by Ronald Langstaff Acting For/***

FROM: John M. Jacobson, Chief  
Mechanical Engineering Branch  
Division of Reactor Safety

SUBJECT: SPECIAL INSPECTION CHARTER FOR POINT BEACH  
POTENTIAL COMMON MODE FAILURE OF AUXILIARY  
FEEDWATER

At 3:38 p.m. CST, November 29, 2001, the licensee for Point Beach Nuclear Plant identified a potential common mode failure of auxiliary feedwater system upon loss of instrument air. The NRC was notified of the potential common mode failure by a 10 CFR 50.72 notification at 6:07 p.m. EST, November 29, 2001. The licensee identified that loss of instrument air would cause the auxiliary feedwater (AFW) minimum flow recirculation valves to fail in the closed position. In scenarios (such as a loss of off-site power) where a loss of instrument air would occur, AFW pumps could be damaged by loss of flow caused by closure of the minimum flow recirculation valves and operators closure of AFW flow regulating valves to limit AFW flow for control of steam generator levels.

Point Beach Units 1 & 2 are currently at or near full power. The licensee reported that they are taking interim corrective actions in the form of operating crew briefs to ensure AFW is not damaged under loss of instrument air conditions and is evaluating procedural and equipment design changes to provide a permanent correction to AFW.

Based on the criteria specified in Management Directive 8.3 and Inspection Procedure 71153, a special inspection was initiated in accordance with Inspection Procedure 93812. The special inspection team members are R. Langstaff, Sr. Reactor Inspector; A. Dunlop, Sr. Reactor Inspector; and G. O'Dwyer, Reactor Inspector, all of the DRS Mechanical Engineering Branch; R. Powell, Point Beach Resident Inspector; and S. Burgess, Senior Reactor Analyst. The special inspection will evaluate the facts, circumstances, and licensee actions surrounding this event. A charter was developed and is attached. The nominal duration of the inspection is expected to be approximately 5 days, starting on December 3, 2001.

Attachment: As stated

CONTACT: John M. Jacobson, DRS  
(630) 829-9736

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DATE	11/30/01	11/30/01				

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**SPECIAL INSPECTION (SI) TEAM CHARTER**  
**POINT BEACH POTENTIAL COMMON MODE FAILURE OF AUXILIARY FEEDWATER**

The special inspection should assess the licensee's performance, and to the extent practicable, independently validate the licensee's efforts in the following areas:

1. Timeline development relating to contributors and discovery of the potential common mode failure of the auxiliary feedwater system due to the loss of instrument air.
2. Adequacy of licensee's operability evaluation and immediate corrective actions for addressing impact of loss of instrument air on auxiliary feedwater.
3. Preliminary determination of risk significance
  - a. Lack of pressurizer PORV function impact on loss of auxiliary feedwater
  - b. Fire scenarios
  - c. Loss of instrument air scenarios
4. Apparent cause of condition resulting in potential loss of auxiliary feedwater upon loss of instrument air
  - a. Modifications to AFW pump minimum recirculation valves to fail closed
  - b. Engineering review of failure modes and 50.59 safety evaluations
5. Evaluation of pressurizer PORV modifications impact on operational capability in response to loss of feedwater
6. Extent of condition of the adequacy of engineering review of
  - a. instrument air system
  - b. other air operated valves
  - c. failure modes
7. Failure of original IPE evaluation to consider AFW recirculation valve function

Charter Approval

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John M. Jacobson, Chief  
Mechanical Engineering Branch

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John A. Grobe, Director  
Division of Reactor Safety