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February 23, 1992

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

PRAIRIE ISLAND NUCLEAR GENERATING PLANT
Docket Nos. 50-282 License Nos. DPR-42
50-306 DPR-60

We have completed our initial investigations and determined the primary causes of the loss of decay heat removal and unplanned mode change occurrence during reduced inventory operation at Prairie Island Unit 2 on February 20, 1992. We have discussed the causes with members of the NRC Augmented Inspection Team (AIT). We have also discussed corrective actions necessary for release of the hold on reactor coolant inventory with members of the AIT.

Initial review of the event by plant management determined the apparent root causes. Error Reduction Task Force review, though not yet complete, agrees with plant management conclusions. The primary root causes are:

1. Difficulty in determining Reactor Coolant System (RCS) level due to nitrogen over pressure in the RCS.
2. Lack of a dedicated team leader during reduced inventory operations.
3. Lack of a senior experienced reduced inventory engineer available to Operations personnel for consultation.

The magnitude of the heat up associated with the event was partially due to the time needed for transition from abnormal to emergency procedures. Early transition was not specifically required by existing procedures.

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Corrective actions taken for draindown to install steam generator nozzle dams are:

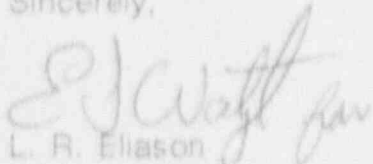
1. Development of a new reduced inventory procedure which requires:
 - That the RCS be fully vented (depressurized) during reduced inventory.
 - That a dedicated member of operation management be clearly designated as the team leader during draindown with no other concurrent duties.
 - That a senior engineer experienced with reduced inventory operations will be immediately available to Operations personnel during draindown operations.
2. Abnormal and Emergency procedures have been revised to require implementation when RCS temperature exceeds 150°F.
3. An Emergency Plan Implementing Procedure has been revised to clearly define the Emergency Action Level associated with reduced inventory events.
4. Additional access provisions and lighting have been installed to aid the Operator taking local level readings.

New and revised procedures will be reviewed and discussed with Operations personnel before use.

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In addition, other near term actions are planned which will apply, in a broad perspective, lessons learned to other operating activities as appropriate. Evaluation of long term actions for reduced inventory operations are in progress which will consider other hardware, procedure and human factors enhancements.

Sincerely,

A handwritten signature in dark ink, appearing to read "L. R. Eliason", with a stylized flourish extending from the end.

L. R. Eliason
Vice President
Nuclear Generation

cc: Regional Administrator - Region III, NRC
Senior Resident Inspector, NRC
NRR Project Manager, NRC
J E Silberg