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Director
Office of Nuclear Reactor Regulation
U S Nuclear Regulatory Commission
Washington, DC 20555



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

Response to Request for Additional Information on Upgraded SRO
and RO Training and Training for Mitigating Core Damage

In a letter dated March 17, 1982 from Mr Robert A Clark, Chief, Operating Reactors Branch #3, Division of Licensing, USNRC we were requested to supply additional information related to our upgraded Senior Reactor Operator (SRO) and Reactor Operator (RO) training program and our training for mitigating core damage. The purpose of this letter is to provide the requested information.

Responses to the seven items in the enclosure to Mr Clark's letter are attached. Please contact us if you have any questions concerning the information we have provided related to our SRO and RO training and training for mitigating core damage.

L.O. Mayer

L O Mayer, PE
Manager of Nuclear Support Services

LOM/DMM/bd

cc: Regional Admin-III, NRC
NRR Proj Mgr, NRC
NRC Resident Inspector
G Charnoff
R T Liner, Science Applications, Inc.

Attachment

*M003
5/1*

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RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION

FOR

PRAIRIE ISLAND 1 AND 2

1. Do items (1) and (2) in your submittal letter dated August 1, 1980, apply to both initial training and requalification programs for reactor operators and senior reactor operators?

Item 1 (heat transfer and fluid flow) pertains to initial qualification, although requalification includes many of the topics outlined.

Item 2 (mitigation of core damage) pertains to both initial training and requalification.

2. Attachment 1 from your submittal letter dated August 1, 1980, and the attachment (I.A.2.1) from your submittal dated December 30, 1980, have lectures which appear to have the potential for covering the subjects of heat transfer, fluid flow and thermodynamics as specified in enclosure 1 of Denton's March 28, 1980, letter. With respect to training and requalification, do these lectures in fact cover this material and is the coverage at the level of detail specified in enclosure 2 of the Denton letter?

Enclosure 2 to Denton's March 28, 1980, letter specifies training in heat transfer, fluid flow and thermodynamics. These subjects are covered by our training and requalification program.

3. Attachment 2 from your submittal letter dated August 1, 1980, and the attachment (I.A.2.a and II.B.4) from your submittal dated December 30, 1980, have lectures which appear to have the potential for addressing the subject of using installed plant systems to control or mitigate an accident in which the core is severely damaged. This requirement is called out in enclosure 1 of Denton's letter. With respect to training and requalification, do these lectures address the topic at the level of detail specified in enclosure 3 of Denton's letter?

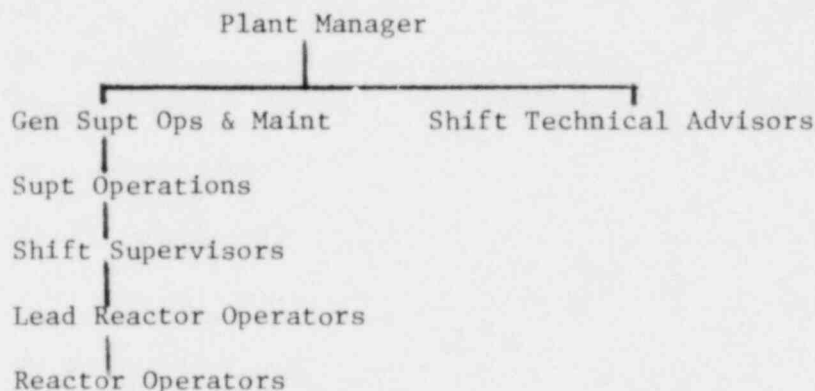
These subjects are addressed at the level of detail expressed in the Denton letter.

4. Does your instructor requalification program (I.A.2.3) address changes in facility design, procedures and technical specifications? Does it also review current operating history and problems as required in instructor requalification programs according to item 2.e of enclosure 1 of Denton's March 28, 1980, letter?

All operational instructors either hold a license and are actively involved in requalification or are in initial license training.

5. Are the lectures and quizzes on the subject of accident mitigation given to shift technical advisors and operating personnel from the plant manager through the operations chain to the licensed operators? If they are, would you please provide the titles of the people who are trained and an organization chart which illustrates their position in the operations chain?

Yes*



*The plant manager receives a self-study package on mitigation of core damage. All others receive lectures and quizzes.

6. Do the training and the requalification program elements which involve heat transfer, fluid flow, thermodynamics and accident mitigation involve 80 contact hours? (A contact hour of instruction is a one-hour period in which the course instructor is present or available for instructing or assisting students; lectures, seminars, discussions, problem-solving sessions, and examinations are considered contact periods under this definition.)

The initial training program does include 80 contact hours covering the subjects described noted in the response to question 7. The requalification program has included 80 contact hours covering these subjects; however, we do not anticipate the need to continue coverage of these subjects on an 80-hours/year basis.

7. For item II.B.4, provide an outline of the training program for mitigating core damage, including the number of training hours involved. Your outline can include any training program which relates to the training for mitigating core damage. Follow the guidelines given in the enclosure 3 of H. R. Denton's letter dated March 28, 1980, and INPO Guidelines for Training to Recognize and Mitigate the Consequences of Core Damage (Document Number STG-01, Rev. 1, January 15, 1981). NRC requires minimum of 80 contact hours of training for mitigating core damage.

Subjects covered are described below. Phase A covers primarily heat transfer and fluid flow related topics. Phase B covers primarily accident mitigation topics.

PHASE A

Heat Transfer, Thermodynamics, and Fluid Flow

1.0	Steam Power Cycle	4 hours
2.0	Thermodynamics	4 hours
3.0	Steam Generators	4 hours
4.0	Turbine Generators	4 hours
5.0	Condensers	4 hours
6.0	Pumps and Fluid Flow	4 hours
7.0	Steam Plant Calculations	4 hours
8.0	Reactor Thermal and Hydraulic Performance	4 hours
9.0	Reactor Fuel and Core Design	4 hours
10.0	PWR Performance	4 hours

PHASE B

1.0	Introduction - Ensuring Clad Integrity	4 hours
2.0	Core Cooling Mechanics	8 hours
3.0	Potentially Damaging Situations	8 hours
	- Loss of Feedwater Accidents	
	- Loss of Coolant Accidents	
4.0	Vital Process Instrumentation	4 hours
5.0	Incore Instrumentation	4 hours
6.0	Excore Instrumentation	4 hours
7.0	Post-Accident Primary Radiochemistry	4 hours
8.0	Radiological Aspects of Core Damage	4 hours