May 25, 2000

MEMORANDUM TO: William D. Travers, Executive Director for Operations

FROM: J. E. Dyer, Regional Administrator ***/RA/***

SUBJECT: COMMISSION STAFF REQUIREMENTS MEMORANDA (SRM) M000110B - D. C. COOK SIGNIFICANT EMERGENT SAFETY ISSUES

The attachment to this memorandum provides an update to the significant emergent safety issues at D. C. Cook. In the subject SRM, the Commission requested to be informed of these issues. The issues involving essential service water system operation and degraded grid voltage concerns have been resolved and will no longer be reported in future memoranda. Progress is being made toward resolving the other issues. Changes to existing issues are provided in ***bold italics***.

Attachment: As stated
(Contains 2.790 information)

cc w/att: F. Miraglia, OEDO
S. Collins, NRR
M. Satorius, NRR
J. Zwolinski, NRR
S. Bajwa, NRR
C. Craig, NRR
J. Stang, NRR
A. Vegel, RIII
G. Shear, RIII
B. Bartlett, SRI D. C. Cook
M. Holmberg, RIII

CONTACT: D. Passehl, DRP
(630) 829-9872

Not for Public Disclosure

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OFFICE	RIII	E	RIII	E	RIII	E	RIII	
NAME	Vegel:trn		Grobe		Zwolinski		Dyer	
DATE	05/25/00		05/25/00		05/25/00		05/25/00	

OFFICIAL RECORD COPY

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Issue Is Resolved and Will No Longer Be Included in this Report

Attachment

Current Emerging Safety Issues

Issue	The current accident analysis for the essential service water (ESW) system requires each train of ESW to include a Unit 1 pump cross-connected with a Unit 2 pump. To facilitate concurrent operation of Unit 2 and work on Unit 1 that may impact the ESW system, the licensee is trying to demonstrate that the Unit 2 pumps alone can supply sufficient accident mitigation flow.
Licensee Action	On May 1, 2000, the licensee completed a safety review of administrative requirements that would allow closure of the ESW unit cross-tie valves to isolate inoperable Unit 1 ESW pumps from the Unit 2 portion of the ESW system. The licensee concluded that these controls would allow the Unit 2 portion of the ESW system to be declared operable for restart and that no Unreviewed Safety Questions (USQs) exists. The licensee has issued these administrative controls and completed calculations on May 15, 2000, to affirm that a single Unit 2 pump alone can supply sufficient accident mitigation flow.
NRC Action	NRR and RIII staff met with licensee staff on May 16, 2000, to discuss the technical basis for the administrative requirements. After extensive review, NRC staff determined that a USQ did not exist. NRC staff agreed with the licensee that the Technical Specifications were not conservative and resolution of this issue through the NRC Administrative Letter 98-10 "Dispositioning of Technical Specifications that are Insufficient to Assure Plant Safety" was appropriate and consistent with NRC policy. ***NRC staff conducted confirmatory reviews of the licensee's May 15, 2000, calculations and had no substantive concerns. In a letter to the NRC dated May 19, 2000, the licensee described plans to submit a Technical Specification change by August 19, 2000. The staff finds that this schedule is acceptable.***
Safety Significance	Given the licensee's analysis, Unit 2 ESW pumps provide sufficient flow to mitigate analyzed accidents.
Impact on Schedule	None.

Issue Is Resolved and Will No Longer Be Included in this Report

Current Emerging Safety Issues

Issue	The licensee identified multiple examples where large-bore piping supports were not installed according to the design and licensing basis. Systems affected include Unit 2 Residual Heat Removal, Containment Spray, and Safety Injection, along with multiple nonsafety-systems.
Licensee Action	The licensee has issued a design change package to repair, replace, or install approximately seventy piping supports in the affected safety-related systems. Physical work on the piping supports has started. Also, the licensee has identified the need to repair, replace, or install several hundred additional supports in other systems. Supports needing work on systems necessary to support fuel load have been completed.
NRC Action	Resident Inspectors continue to perform follow up inspection of related piping support modifications. Pipe support modifications needed for fuel load were confirmed to be completed.
Safety Significance	The affected piping systems may not have been adequately designed to sustain a seismic event.
Impact on Schedule	None anticipated. ***The licensee is on schedule to complete the one remaining support package prior to Mode 4.***

Issue Is Resolved and Will No Longer Be Included in this Report

Attachment

Current Emerging Safety Issues

Issue	A postulated worst case offsite degraded grid voltage during a design basis accident may result in terminal voltages at some safety-related electrical equipment being below that required for the equipment to function.
Licensee Action	The licensee plans to implement several modifications to improve terminal voltage prior to Unit 2 restart. These include installing a breaker to split electrical load between two 34.5 kV transformers, changing transformer tap settings, installing voltage regulating transformers, and replacing undersized motor cables on some equipment. The licensee also plans to establish administrative controls with the American Electric Power System Operations group to monitor grid voltages. The licensee is evaluating the installation of automatic load tap changing transformers for the long term and plans to re-review their responses to applicable Generic Letters within one year of restart of Unit 1 and initiate any required licensing actions. On May 4, 2000, the licensee submitted a letter describing the short term actions and long term commitments to ensure operability of the electrical distribution system.
NRC Action	The NRC conducted a public meeting with the licensee to discuss this issue on April 17, 2000. ***NRC has reviewed the licensee's commitment letter and found it acceptable.***
Safety Significance	Safety-related equipment needed to mitigate the effects of a design basis accident may not function.
Impact on Schedule	None.

Issue Is Resolved and Will No Longer Be Included in this Report

Current Emerging Safety Issues

Issue	On November 22, 1999, the licensee identified a concrete wall in containment where segments of concrete and several reinforcing bars had been removed from the upper portion of the wall during initial construction. This wall forms part of the boundary between upper and lower containment which is designed to force the steam blowdown during a loss of coolant accident (LOCA) or a main steam line break (MSLB) through the ice condenser to reduce containment pressure buildup. The missing concrete and reinforcing bars may affect the ability of containment to perform its function.
Licensee Action	The licensee evaluated the condition of the wall and determined that the wall does not meet specified design margins. The licensee determined that replacement of the missing concrete with grout would restore the wall to an operable but degraded condition. The licensee initiated a design change package to add grout to the wall and completed calculations on April 14, 2000, concluding that the wall would not fail under the worst case postulated loading. The licensee has prepared an operability evaluation of this condition. The licensee was pursuing additional NRC questions resulting from a May 4, 2000, public technical meeting regarding the as-built configuration of this wall and the adequacy of their calculations. Following the May 4, 2000, public meeting, the licensee hired a contractor to map the reinforcing bars in the wall. Based on the preliminary mapping results, the licensee concluded that there were fewer reinforcing bars in the wall than were assumed in the calculations completed on April 14, 2000. The licensee has initiated a more sophisticated analysis to evaluate operability of the wall. The licensee is continuing to map the reinforcing bars in the wall and other similar walls in containment.
NRC Action	NRR and Region III staff continue to review the supporting calculations and will review the licensee's basis for determining the operability of this wall.
Safety Significance	Failure of this wall during a LOCA or MSLB would create a steam bypass of the ice condenser resulting in over-pressurization of the containment and potential containment failure.
Impact on Schedule	Unknown at this time.