

August 30, 2001

MEMORANDUM TO: Bruce Bartlett, D.C. Cook Senior Resident Inspector

FROM: Anton Vogel, Chief, Reactor Projects Branch 6 */RA/*

SUBJECT: SPECIAL INSPECTION CHARTER FOR D.C. COOK SHUTDOWN
REGARDING LOW ESSENTIAL SERVICE WATER FLOW ON
AUGUST 30, 2001

On August 29 and August 30, 2001, the D.C. Cook plant experienced problems with essential service water system performance on both Units, which subsequently resulted in an unplanned shutdown of Unit 2. Unit 1 was already shutdown and in Mode 5 to support circulating water system repairs. At 10:55 p.m. on August 29, 2001, plant staff noted abnormally low essential service water flow to the Unit 2 AB and CD Emergency Diesel Generators (EDGs) during a surveillance test. The licensee entered Technical Specification 3.0.3 after plant staff determined that both EDGs had been inoperable since 10:55 p.m. due to sediment buildup. At 11:47 p.m. on August 29, 2001, the licensee exited Technical Specification 3.0.3 after ESW flow for the EDGs returned to normal upon cycling of the ESW outlet valves from the EDGs. At 2:15 a.m. on August 30, 2001, plant staff observed abnormally low essential service water (ESW) flow to the Unit 2 West Component Cooling Water (CCW) Heat Exchanger and declared the Unit 2 West CCW Train inoperable. Cycling of the Unit 2 West CCW heat exchanger inlet and outlet valves improved ESW flow somewhat; however, flow remained significantly below normal.

Because the effect of the low ESW flow condition on the onsite emergency power sources and other components served by ESW was not fully understood, the licensee decided to shut down Unit 2 to investigate. In addition, Unit 1 had been shut down since August 27, 2001, to perform maintenance on the circulating water system. The licensee had data to suggest that unexpected system interactions had occurred regarding the circulating water system and essential service water system.

Unit 1 is currently in Mode 5 (Cold Shutdown) and Unit 2 is currently in Mode 3 (Hot Standby).

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 Bruce Bartlett, D.C. Cook Senior Resident Inspector and Inspection Lead; and Kevin Coyne, D.C. Cook Resident Inspector. 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 7-10 days.

Attachment: As stated

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SPECIAL INSPECTION (SI) TEAM CHARTER

D.C. COOK LOW ESSENTIAL SERVICE WATER FLOW

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. Development of Sequence of Events Related to ESW Low Flow Condition
2. Adequacy of Licensee Response to ESW Low Flow Condition including Emergency Plan Implementation
3. Determination of Root Cause for ESW Low Flow Condition
4. Safety Significance of ESW Low Flow Condition on:
 - a. Emergency Diesel Generators
 - b. Component Cooling Water System
 - c. Other Safety Related Components Served by ESW
5. Adequacy of Corrective Actions Associated with Restoration of:
 - a. Emergency Diesel Generators
 - b. Component Cooling Water System
 - c. Other Safety Related Components Served by ESW
6. Adequacy of Overall Corrective Actions to Address Recurrence of Sand/Silt Buildup Problems
7. Assess Interaction of the Maintenance Activities on the Non-safety Related Circulating Water System with Operation of the ESW System.

Charter Approval

Chief, Reactor Project Branch 6

Director, Division of Reactor Projects, Region III