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Omaha NE 68102-2247

May 30, 2006
LIC-06-0059

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555-0001

- References:
1. Docket No. 50-285
 2. Letter from Ross Ridenoure (OPPD) to Document Control Desk (NRC dated December 19, 2005, Fort Calhoun Station Unit No. 1 License Amendment Request, "Reduce the Number of Required Operable Containment Spray Pumps" (LIC-05-0135) (ML053550199)

SUBJECT: Response to Request for Additional Information on the License Amendment Request to Reduce the Number of Required Operable Containment Spray Pumps

The Omaha Public Power District (OPPD) previously submitted Reference 2 in accordance with 10 CFR 50.90 to reduce the required number of operable Containment Spray (CS) pumps from three to two in order to enhance net positive suction head (NPSH) margins. This letter provides the response to the NRC's questions presented in an email dated April 18, 2006, related to human factors aspects of Reference 2.

No commitments to the NRC are made in this letter. I declare under penalty of perjury that the foregoing is true and correct. (Executed May 30, 2006)

If you have any questions or require additional information, please contact Thomas R. Byrne at (402) 533-7368.

Sincerely,

S. K. Gambhir
Division Manager
Nuclear Projects

SKG/TRB/trb

U. S. Nuclear Regulatory Commission

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Attachment 1 - Response to Request for Additional Information on the License
Amendment Request to Reduce the Number of Required Operable
Containment Spray Pumps

c: Director of Consumer Health Services, Department of Regulation and Licensure,
Nebraska Health and Human Services, State of Nebraska

Attachment 1

**Response to Request for Additional Information on the License
Amendment Request to Reduce the Number of Required Operable
Containment Spray Pumps**

Attachment 1

Response to Request for Additional Information on the License Amendment Request to Reduce the Number of Required Operable Containment Spray Pumps

NRC Question 1:

In the Human Factors section of the Technical Analysis, the licensee mentions that if the operator were to inadvertently operate CS [Containment Spray] pump SI-3C, the operator would be required to take prompt action to stop the CS pump prior to the Recirculation Actuation Signal (RAS). How much time will the operator have to stop CS pump SI-3C before the RAS signal? What are the procedural controls that would serve to limit such an error by the operator? What are the actions the operator must take to recover in a timely matter if the CS pump SI-3C is started?

OPPD Response:

The operator will have a minimum of 20 minutes to stop the CS pump before RAS. Assuming that all engineered safeguards start as originally designed, the minimum time to RAS during a large break Loss of Coolant Accident (LOCA) is approximately 20 minutes. After removal of the auto-start feature from Containment Spray Pump SI-3C, time to RAS is extended to 24 minutes. Should the operator inadvertently start SI-3C Containment Spray Pump, the first opportunity to shut it off is during the safety status function check, which is performed by the Shift Technical Advisor at ten (10) minute intervals as required in EOP-03, *Loss of Coolant Accident*; EOP-05, *Uncontrolled Heat Extraction*; EOP-20, *Functional Recovery Procedure*; and AOP-22, *Reactor Coolant Leak*. The EOP steps are planned to require verification that sufficient spray flow is available with the allowed number (2) of spray pumps in operation. If containment spray pumps or HPSI pumps show any sign of distress caused by a plugged strainer, then the EOPs provide guidance for shutting down the pumps. If SI-3C is discovered running, it will be shut off in accordance with the EOP instructions.

NRC Question 2:

In the Administrative Controls section, the licensee mentions that there will be administrative controls to limit the usage of CS pump SI-3C when less than two CS pumps are operating unless there are "extenuating circumstances." What are these extenuating circumstances in which the operator may manually operate the CS pump SI-3C and how will these circumstances be reflected into the emergency operating procedures? And will any of these extenuating circumstances that call for manual

operation of this CS pump be time-critical operator actions? If so, how will these times be validated?

OPPD Response:

The LAR specifies that “administrative controls will be incorporated into plant procedures to limit the **use of CS Pump SI-3C to when there are less than two CS pumps** operating (and then only one pump utilizing containment sump strainer SI-12A) unless there are other extenuating circumstances which will be defined in the emergency operating procedures.” The EOPs are planned to be revised to specify that operation of SI-3C is allowed only if SI-3B is not running, or if only SI-3A is operating and the safety function is not met, i.e., containment spray flow is less than 2300 gpm. The EOPs are also planned to be revised to contain specific caution statements against operating SI-3B and SI-3C at the same time. Since no extenuating circumstances for running the third CS pump, SI-3C, have been identified, the last two questions do not apply.