February 9, 2006

Mr. Randall K. Edington
Vice President-Nuclear and CNO
Nebraska Public Power District
P. O. Box 98
Brownville, NE 68321

SUBJECT: COOPER NUCLEAR STATION - REQUEST FOR ADDITIONAL INFORMATION RE: ALTERNATE SOURCE TERM FOR REEVALUATION OF THE FUEL HANDLING ACCIDENT DOSE CONSEQUENCES (TAC NO. MC8566)

Dear Mr. Edington:

The Nuclear Regulatory Commission (NRC) staff has reviewed the information provided in the September 29, 2005, submittal and has determined that the additional information identified in this enclosure is required in order for the NRC staff to complete its review. The licensee requested NRC staff approval of the subject relief request by September 1, 2006. To meet that target date, the NRC staff requests that the licensee provide its response no later than March 30, 2006.

Sincerely,

/RA/

Brian Benney, Project Manager
Plant Licensing Branch IV
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-298

Enclosure: Request for Additional Information

cc w/encl: See next page

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ADAMS ACCESSION NO: ML060460538 **NRR-106**

OFFICE	LPL4/PM	LPL4/LA	AADB/BC	LPL4/BC
NAME	BBenney	LFeizollahi	MKotzalas	DTerao
DATE	02/09/06	02/09/06	1/25/06	02/09/06

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REQUEST FOR ADDITIONAL INFORMATION

BY THE OFFICE OF NUCLEAR REACTOR REGULATION

FUEL HANDLING ACCIDENT – ALTERNATIVE SOURCE TERM AMENDMENT

FACILITY OPERATING LICENSE NO. DPR-46

NEBRASKA PUBLIC POWER DISTRICT

COOPER NUCLEAR STATION

DOCKET NO. 50-298

1. The radiological dose analysis submitted in support of this license amendment request assumed the Regulatory Guide (RG) 1.183, Table 3, non-loss-of-coolant accident gap fractions. The release fractions listed in RG 1.183, Table 3, are acceptable for use with fuels having a peak burnup up to 62 gigawatt days per metric ton uranium (GWD/MTU) provided that the maximum linear heat generation rate does not exceed the 6.3 kilowatt per foot peak rod average power for burnups exceeding 54 GWD/MTU. Please verify that the fuel used at Cooper Nuclear Station (CNS) meets these criteria.

2. The radiological dose analysis assumed that there is no means of isolating the radiological activity associated with a fuel handling accident (FHA) release within the reactor building (i.e., no credit is taken for maintaining the secondary containment boundary). Please identify all the possible release points for the FHA, when the reactor building is open to the environment and the standby gas treatment system and secondary containment are inoperable. Also, justify why the reactor building vent release pathway is assumed to bound all these other possible release pathways for the control room dose assessment. Provide a figure, or figures, showing structures and assumed paths of air flow in your response.

3. Item 2 of Section 10.4.2 (Main Control Room Air Conditioning and Habitability Controls – Safety Design Basis) of the CNS Updated Safety Analysis Report (USAR) states that the main control room air-conditioning system and habitability controls isolate the main control room outside air intake on a Group 2 or Group 6 primary containment isolation system isolation signal. This statement appears to conflict with CNS USAR Section 10.4.5.2 (Main Control Room Air Conditioning and Habitability Controls – Control Room Emergency Filter [CREF] System) which states that the control room envelope remains pressurized during a radiological emergency mode of operation by channeling all outside air through the CREF system. Please explain this apparent discrepancy.

4. The term “recently irradiated fuel assemblies” is being introduced in the applicability and action statements for several technical specifications (TSs). In some cases (i.e., TSs 3.3.6.2, 3.6.4.1, 3.6.4.2, and 3.6.4.3), this term is defined in the corresponding TS bases as fuel that has occupied part of a critical reactor core within the previous 24 hours; in other cases (i.e., TSs 3.3.7.1 and 3.7.4), this term is defined in the corresponding TS

bases as fuel that has occupied part of a critical reactor core within the previous 7 days. Please explain how using the same term (i.e., recently irradiated fuel assemblies) with different definitions within the TSs will not cause confusion.

5. A commitment has been made (i.e., Commitment Number NLS2005075-02) to ensure that either a reactor building exhaust fan, a standby gas treatment (SGT) system fan, or the CREF system is in operation prior to conducting fuel handling operations when less than a 7-day decay time has elapsed. Since the CREF system initiates on high radiation detected in the reactor building exhaust plenum, either a reactor building exhaust fan or an SGT system fan must be operational to ensure ventilation flow in the exhaust plenum at the start of the FHA. Please describe the TSs or administrative controls that will be implemented to ensure that either a reactor building exhaust fan, an SGT system fan, or the CREF system will be in operation for the entire 7-day decay time period after fuel handling operations have begun.

6. The two commitments that have been made (i.e., Commitment Numbers NLS2005075-01 and NLS2005075-02) are to be implemented within 30 days of issuance of the requested license amendment. Could the movement of recently irradiated fuel assemblies in secondary containment occur prior to the implementation of these two commitments?

Cooper Nuclear Station

cc:

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