



Nebraska Public Power District
Nebraska's Energy Leader

NLS2000033
March 24, 2000

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

Gentlemen:

Subject: Design Basis Accident Radiological Assessment Computational
Methodology - Supplemental Information
Cooper Nuclear Station, NRC Docket No. 50-298, DPR-46

- References:**
1. Letter to U.S. Nuclear Regulatory Commission (NLS990122) from John H. Swailes (Nebraska Public Power District) dated December 22, 1999, Design Basis Accident Radiological Assessment Computational Methodology Revision.
 2. Letter to Mr. J. H. Swailes (Nebraska Public Power District) from Lawrence J. Burkhart [signed by Robert A. Gramm] (U.S. Nuclear Regulatory Commission) dated March 6, 2000, Cooper Nuclear Station - Request for Additional Information (TAC No. MA7758).
 3. Letter to U.S. Nuclear Regulatory Commission (NLS2000029) from John H. Swailes (Nebraska Public Power District) dated March 20, 2000, Design Basis Accident Radiological Assessment Computational Methodology - Response to Request for Additional Information.

By letter dated December 22, 1999 (Reference 1) the Nebraska Public Power District (District) submitted revised design basis accident radiological assessment calculational methodology for Nuclear Regulatory Commission (NRC) review and approval. In Reference 2 the NRC requested the District provide additional information related to the submittal. The District's response to those requests was submitted in a letter dated March 20, 2000 (Reference 3).

In Reference 3, the District stated that two of the calculations are not impacted by the response to the request for additional information (Exclusion Area Boundary (EAB) and Low Population Zone (LPZ) Meteorological Dispersion-Accident Analysis (Nuclear Engineering Design Calculation (NEDC) 99-036) and Dose Calculation for Control Room, EAB, and LPZ for a Main Steam Line Break (NEDC 99-035)). As such, these calculations are not included with this submittal.

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Reference 3 further stated that three calculations would be revised and provided under separate letter. Attached herein are those revisions:

- ATTACHMENT 1: Review of Sciencetech Calculation 17080-M-01, X/Q Values for Control Room Intake Using ARCON96 (Attachment 1 to NEDC 99-031, Revision 1);
- ATTACHMENT 2: Review of Sciencetech Calculation 17080-M-03, Control Room, EAB and LPZ Doses Following a LOCA (Attachment 1 to NEDC 99-033, Revision 1); and
- ATTACHMENT 3: Review of Sciencetech Calculation 17080-M-04, Control Room, EAB and LPZ Doses Following a CRDA (Attachment 1 to NEDC 99-034, Revision 1).

Additionally, Reference 3 stated that the status of the remaining calculation (Control Room Habitability and Offsite Dose for a Fuel Handling Accident (NEDC 99-032)) would be addressed in a subsequent letter. The District and the NRC have been in discussion regarding the need for review of NEDC 99-032 prior to Cycle 20 startup. We can accept NRC deferral of its review of this portion of the Reference 1 submittal until the subsequent refueling outage (tentatively scheduled for Fall of 2001). Until that time, the District will impose limitations on the movement of any irradiated GE-14 fuel assembly or loads over irradiated GE-14 fuel assemblies. For any eventuality requiring movement of non-GE-14 fuel, the District can continue to rely on the existing licensing basis related to the fuel handling accident analyses.

With respect to the dose calculation for Control Room, EAB, and LPZ for a Main Steam Line Break (NEDC 99-035), the District can continue to rely on the existing licensing basis related to this analysis and can accept NRC deferral of their review of this portion of the Reference 1 submittal. The District conservatively implements the Technical Specification limit on reactor coolant system specific activity, which provides the appropriate conservative limit for the source term associated with the main steam line break. Since this source term is based on the operating reactor coolant activity, it is not dependent on fuel type.

Based on teleconferences with the NRC Staff, the District is aware that the NRC Staff review of the use of ARCON96 for elevated releases and for building vent path releases will not be completed prior to the Cooper Nuclear Station Cycle 20 startup. As such, the NRC review of the control room operator post-accident integrated doses associated with these calculations will not be complete prior to the anticipated restart date. While the District believes that the assumptions used in its dose calculations (which demonstrate that the GDC 19 limits are met for Control Room operator integrated dose) are reasonable, the District will continue implementation of the previous commitment to make KI (potassium-iodide) tablets available to the Control Room operators (in accordance with the recommended dosage) if plant conditions indicate that a LOCA is occurring coincident with core damage. Continuing this interim compensatory measure will provide reasonable assurance that GDC 19 limits are met for both the District's and the NRC Staff's evaluation and will remain in effect until the NRC's concerns are resolved.

The revisions to the calculations provided in this submittal and the interim measure to continue providing KI do not reflect either a change in scope or intent regarding the District's original submittal (Reference 1). Accordingly, the significant hazards determination submitted previously (Reference 1) also remains unchanged and the previous Federal Register notice regarding these matters continues to be valid.

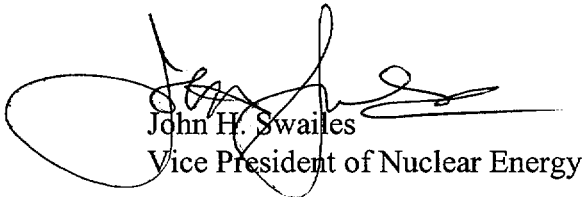
In a recent teleconference, the District also agreed to provide an informational estimate of the effects of assuming an additional control room dose contribution from the elevated release path by assuming an initial 30 minute "fumigation" contribution. The informational estimate is provided in Attachment 4. However, the District wishes to reiterate that the Attachment 4 Table, "Informational Estimate Utilizing 30 Minute 'Fumigation'," is not considered part of the CNS licensing basis and should not be made part of the licensing basis.

The revised calculations provided in Attachments 1, 2, and 3, and the additional information provided in Attachment 4 are intended to facilitate the NRC review and acceptance of the required portions of the revised methodology in time to support the Cooper Nuclear Station Cycle 20 startup. Thus, the District can accept NRC interim approval until the subsequent refueling outage (tentatively scheduled for Fall of 2001). Receipt of this safety evaluation by April 4, 2000 will support this need.

The District respectfully requests the NRC inform senior CNS management if it is determined that the requested restart-required amendment cannot be approved by that time.

Should you have any questions concerning this matter, please contact Sharon Mahler at (402) 825-5236.

Sincerely,



John H. Swailles
Vice President of Nuclear Energy

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Attachments

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cc: Regional Administrator w/attachment
USNRC - Region IV

Senior Project Manager w/attachment
USNRC - NRR Project Directorate IV-1

Senior Resident Inspector w/attachment
USNRC

NPG Distribution w/o attachment