



## Nebraska Public Power District

*Always there when you need us*

NLS2007047

August 14, 2007

U.S. Nuclear Regulatory Commission

Attention: Document Control Desk

Washington, D.C. 20555-0001

**Subject:** Incorrect Units Specified in Dose Calculations  
Cooper Nuclear Station, Docket No. 50-298, License No. DPR-46

- References:**
1. Letter from John H. Swailes, Nebraska Public Power District, to U.S. Nuclear Regulatory Commission, dated March 24, 2000, "Design Basis Accident Radiological Assessment Calculational Methodology – Supplemental Information."
  2. Letter from Lawrence J. Burkhardt, U.S. Nuclear Regulatory Commission, to J. H. Swailes, Nebraska Public Power District, dated April 7, 2000, "Cooper Nuclear Station – Issuance of Amendment on Design-Basis Accident Radiological Assessment Calculational Methodology Revision (TAC No. MA7758)." [Amendment 183]
  3. Letter from Mohan C. Thadani, U.S. Nuclear Regulatory Commission, to David L. Wilson, Nebraska Public Power District, dated October 23, 2001, "Cooper Nuclear Station – Issuance of Amendment Regarding Revised Radiological Dose Assessment and Technical Specification Changes (TAC No. MB1419)." [Amendment 187]
  4. Letter from Mohan C. Thadani, U.S. Nuclear Regulatory Commission, to Clay C. Warren, Nebraska Public Power District, dated February 21, 2003, "Cooper Nuclear Station – Issuance of Amendment Regarding Design Basis Accidents' Radiological Dose Assessment Methodologies, and Revision to License Condition 2.C.(6) (TAC No. MB4654)." [Amendment 196]
  5. Letter from Mohan C. Thadani, U.S. Nuclear Regulatory Commission, to Clay C. Warren, Nebraska Public Power District, dated March 12, 2003, "Cooper Nuclear Station – Correction of Typographical Errors Re: Amendment Regarding Design Basis Accidents Radiological Does [Sic: Dose] Assessment Methodologies and Revision to License Condition 2.C.(6) (TAC No. MB4654)." [Amendment 196A]

**COOPER NUCLEAR STATION**

P.O. Box 98 / Brownville, NE 68321-0098

**Telephone:** (402) 825-3811 / **Fax:** (402) 825-5211

www.nppd.com

A001

NRR

6. Letter from Bhalchandra Vaidya, U.S. Nuclear Regulatory Commission, to Randall K. Edington, Nebraska Public Power District, dated December 5, 2006, "Cooper Nuclear Station – Re: NRC Receipt of Cooper Nuclear Station Responses to Generic Letter 2003-01, 'Control Room Habitability' (TAC No. MB9792)."

Dear Sir or Madam:

The purpose of this letter is for Nebraska Public Power District (NPPD) to inform the Nuclear Regulatory Commission (NRC) of an error in the unit of a parameter discussed in the safety evaluation (SE) accompanying each of three amendments of the Cooper Nuclear Station (CNS) Operating License DPR-46. The error was specifying the unit of standard cubic feet per minute (scfm) for assumed unfiltered inleakage into the control room in the loss-of-coolant accident (LOCA) and control rod drop accident (CRDA) dose calculations in lieu of the correct unit of cubic feet per minute (cfm). This error is typographical in nature with no impact on the analyses since the correct units of cfm were used in the analyses. Because this error has no impact, NPPD is not requesting NRC action. As explained in greater detail below, the calculations containing the incorrect units were submitted by NPPD.

By letter dated March 24, 2000 (Reference 1), NPPD submitted calculations (1) Control Room, Exclusion Area Boundary (EAB) and Low Population Zone (LPZ) Doses Following a LOCA, and (2) Control Room, EAB, and LPZ Doses Following a CRDA. These calculations, provided as Attachments 2 and 3 in Reference 1, respectively, contained the erroneous units.

Amendment 183, dated April 7, 2000 (Reference 2), approved revisions to the radiological assessment calculational methodology for the LOCA design basis accident (DBA) and the CRDA DBA. The erroneous unit was reflected in the SE in Table 1, "CNS Loss of Coolant Accident Analysis Parameters Used by Staff," and in Table 2, "CNS Control Rod Drop Accident Analysis Parameters Used by Staff."

Amendment 187, dated October 23, 2001 (Reference 3), provided final approval of the Fuel Handling Accident (FHA) DBA and interim approval of the calculation methodology for assessment of radiological consequences of the LOCA, CRDA, and main steam line break (MSLB) DBAs for one cycle of operation. The erroneous unit was reflected in the SE in Table 1, "CNS Loss of Coolant Accident Analysis Parameters Used by NRC Staff," Table 2, "CNS Control Rod Drop Accident Analysis Parameters Used by NRC Staff," and Table 3, "CNS Fuel Handling Accident Analysis Parameters Used by the NRC Staff."

Amendment 196, dated February 21, 2003 (Reference 4), approved the dose assessment methodology for MSLB and CRDA, the remaining meteorological assessments for the approval of LOCA and the CRDA dose assessment methodologies, the LOCA dose assessment methodology for one additional operating cycle, and revision of License Condition 2.C.(6). The erroneous unit was reflected in the SE in Table 1, "CNS Main Steam Line Break Accident Analysis Parameters Used by the NRC Staff – Source Term," and Table 2, "CNS Control Rod Drop Accident Analysis Parameters – Source Term."

This SE from Amendment 196 was later revised by correcting the specified value for the assumed main steam isolation valve and condenser leakage for the LOCA from 10 standard cubic feet per hour (scfh) to 11.5 scfh. By letter dated March 12, 2003 (Reference 5) the NRC forwarded the revised SE to NPPD. The erroneous unit of scfm for the assumed unfiltered inleakage into the control room was specified in the same Tables 1 and 2 of the revised SE.

By letter dated December 5, 2006 (Reference 6), the NRC acknowledged receipt of the submittals from NPPD that constituted the responses to NRC Generic Letter 2003-01, Control Room Habitability. The erroneous unit was used in Reference 6 only to reference the parameter value cited previously in References 2, 3, 4, and 5.

The use of the erroneous units was discovered during the review of Reference 6. Following discovery NPPD created a new action to address this condition of erroneous units through a pre-existing item in the CNS corrective action program. As a corrective action, NPPD revised the CNS calculations (the physical records that document the analyses) to specify cfm as the units on the assumed unfiltered inleakage that were used in the analyses. Because the original analyses were performed using the correct units, there was no impact to the analyses. As a result, NPPD does not consider it necessary that the NRC staff revise the SEs mentioned above.

Should you have any questions or require additional information, please contact me at (402) 825-2904.

Sincerely,



David W. Van Der Kamp  
Acting Licensing Manager

/rr

cc: Regional Administrator w/attachment  
USNRC - Region IV

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

Senior Resident Inspector w/attachment  
USNRC - CNS

Nebraska Health and Human Services w/attachment  
Department of Regulation and Licensure

NPG Distribution w/attachment

CNS Records w/attachment

