Docket No. 50-285

December 27, 1985

Mr. R. L. Andrews
Division Manager - Nuclear Production
Omaha Public Power District
1623 Harney Street
Omaha, Nebraska 68102

Dear Mr. Andrews:

SUBJECT: FORT CALHOUN STATION CONTROL ROOM HABITABILITY REANALYSIS (NUREG-0737, ITEM III.D.3.4)

References:

1. Letter from OPPD (W. C. Jones) to NRC (D. G. Eisenhut) dated January 26, 1981.

2. K. G. Murphy and K. M. Campe, "Nuclear Power Plant Control Room Ventilation System Design for Meeting General Design Criterion 19," 13th AEC Air Cleaning Conference, August 1974.

3. Letter from OPPD (R. L. Andrews) to NRC (E. J. Butcher) dated September 23, 1985.

4. Letter from OPPD (R. L. Andrews) to NRC (A. C. Thadani) dated December 9, 1985.

In accordance with NUREG-0737, Item III.D.3.4, Omaha Public Power District submitted a study of their control room with regard to its habitability in the event of accidental release of radionuclides or toxic gases. As a result of this study, corrective actions were taken to bring the doses within the guideline values given in Standard Review Plan Section 6.4. These corrective actions and study (reference 1) were subsequently found to be acceptable by the NRC.

However, in response to a request from Omaha Public Power District to increase the containment leak rate, the staff reviewed the control room habitability system. The District was asked to perform a measurement of the actual distance from the control room air intake to the surface of the containment. This measurement revealed that the value used in the III.D.3.4 analysis did not correspond to the actual measurement (the analysis used 25' while the actual measurement was 12'9". Using this new information, the staff performed calculations based on the Campe-Murphy methodology (reference 2) which revealed a whole body dose in excess of the General Design Criterion 19 (GDC-19) value. As a result, the District has proposed

to extend their control room ventilation air intake from the present 3.9 meters to 11.6 meters from the containment wall to bring the doses to within the GDC-19 value. The District has submitted an analysis based on the Campe-Murphy methodology (reference 3), which shows the doses to the control room operators to be within the SRP Section 6.4 and GDC-19 guidelines with this modification. The District also had an independent contractor perform a similar study, the preliminary results of which agree with the District's.

We have reviewed these submittals and found them to be consistent with the Campe-Murphy methodology. We are in receipt of your confirmation that the independent contractor's results are within SRP Section 6.4 guidelines (reference 4). Based upon the above, we find the proposed extension of the control room ventilation intake from 3.9 to 11.6 meters an acceptable means of bringing the facility into conformance with Item III.D.3.4 of NUREG-0737. Upon completion of this modification during the current refueling outage, the staff's previous safety evaluation on this subject remains valid and this issue is considered closed.

Sincerely,

/S/

Ashok C. Thadani, Director
PWR Project Directorate #8
Division of PWR Licensing-B

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