

September 14, 2001

Mr. S. K. Gambhir  
Division Manager - Nuclear Operations  
Omaha Public Power District  
Fort Calhoun Station FC-2-4 Adm.  
Post Office Box 399  
Hwy. 75 - North of Fort Calhoun  
Fort Calhoun, NE 68023-0399

SUBJECT: FORT CALHOUN STATION, UNIT NO. 1 - REQUEST FOR ADDITIONAL  
INFORMATION (TAC NO. MB1221)

Dear Mr. Gambhir:

The Commission has reviewed your amendment request dated February 7, 2001, and has determined additional information is needed to complete our review. Enclosed is a request for additional information regarding your February 7, 2001, submittal. Please respond within 30 days of receipt of this letter. This request has been discussed with Richard Jaworski of your staff and he has agreed to this schedule. If you have any questions regarding this request please contact me at (301)415-1445.

Sincerely,

**/RA/**

Alan B. Wang, Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-285

Enclosures: Request for Additional information

cc w/encls: See next page

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Ft. Calhoun Station, Unit 1

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REQUEST FOR ADDITIONAL INFORMATION

OMAHA PUBLIC POWER DISTRICT

FORT CALHOUN STATION, UNIT 1

DOCKET NO. 50-285

1. On page 3 of Attachment D to the February 7, 2001 submittal, it was noted that an approach and schedule for resolving Technical Support Center (TSC) dose concerns would be provided by July 31, 2001. Has this information been provided to the staff? If not, when is it scheduled to be provided?
  
2. The approach used for establishing Fort Calhoun Station (FCS) containment spray removal coefficients is different from that described in Regulatory Guide 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors." The Stone and Webster SWNAUA code, a variant of the NAUA/MOD4 computer code, was used. While these calculational methodologies have been used in assessing radionuclide transport during severe accidents, the staff has not previously approved this methodology for use with design basis calculations. The staff requests that a full description of the SWNAUA code be provided. In particular:
  - a. A complete description of the code's aerosol input, e.g., mean (number or mass) value and standard deviation; minimum and maximum aerosol diameter (or radius); number of aerosol size bins; effective density of the aerosol material, and the total mass of the aerosol injected along with its chemical composition.
  - b. A description of the steam condensation model; the source (e.g., computer code, hand calculation) of the thermodynamic state of the containment during spray and aerosol injection (e.g., pressure, temperature, and relative humidity); and the effective rate and/or total amount of steam condensed on spray droplets and on aerosol particles.
  - c. Justification for the single spray droplet radius of 900 micron. Include a discussion of the effect of spray droplet diameter on the aerosol removal.
  - d. Justification for the assumption of elemental iodine plate out onto the aerosol particles.
  - e. Please explain the suitability of the mechanistic SWNAUA code (developed to provide best-estimate values for severe accidents) for use in a deterministic design basis accident analysis. Please identify the uncertainty level associated with the spray lambda values.