

GPU Nuclear, Inc.
U.S. Route #9 South
Post Office Box 388
Forked River, NJ 08731-0388
Tel 609-971-4000

April 12, 1999
1940-99-20138

U. S. Nuclear Regulatory Commission
Attn.: Document Control Desk
Washington, DC 20555

Subject: Oyster Creek Nuclear Generating Station
Facility License No. DPR-16
Docket No. 50-219
Correction of Licensing Basis Discrepancies

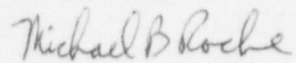
During the review of the Oyster Creek FSAR for consistency and accuracy with the design and licensing basis, a discrepancy was noted regarding the structural analysis of the spent fuel pool floor slab. Section 9.1.2.3.1 of the FSAR states that a thermal loading due to a 21° F temperature differential across the slab depth was used in the critical loading combinations for the spent fuel pool structural analysis. The bases in Section 5.3 of the Technical Specifications indicate that the temperature gradient is a maximum of 60° F.

The 21° F value was used in References 1 and 2. Subsequently, GPU Nuclear determined that maintaining the 21° F value was impractical and a second analysis was performed using the 60° F value and submitted to the NRC in Reference 3. Analysis using the 60° F value indicates that for the worst case load combination, stresses have a minimum safety factor of 1.71 compared to allowable levels. The support for this value and the change to the Technical Specifications Bases from 21° F to 60° F was submitted to the NRC and the Bases change issued. While the letter granting the Bases change refers to the GPU Nuclear submittal describing the temperature gradient of 60° F, the attached Technical Evaluation Report (TER) incorrectly refers to a temperature gradient of 21° F. In addition, various other documents refer to a temperature gradient of 21° F. The attachment to this submittal is a list of pertinent documents, some of which refer to the incorrect value. The purpose of this submittal is to inform the NRC that GPU Nuclear is modifying the Oyster Creek FSAR to reflect the temperature gradient of 60° F and to correct the historical record.

9904210040 990412
PDR ADOCK 05000219
P PDR

Should further information be required, please contact Dennis Kelly of our Nuclear Safety and Licensing Department at 609-971-4246.

Very truly yours,



Michael B. Roche
Vice President and Director
Oyster Creek

Attachment

c: Administrator, USNRC Region I
USNRC Resident Inspector
Oyster Creek USNRC Project Manager

Attachment

Oyster Creek Nuclear Generating Station Spent Fuel Pool Floor Slab Analysis Discrepancies

- On September 2, 1983, GPU Nuclear submitted Technical Specification Change Request (TSCR) No. 111 (Reference 1) and Facility Description and Safety Analysis Report (FDSAR) Amendment No. 79 (Reference 2) to the NRC. FDSAR Amendment No. 79 is identified as GPU Nuclear Document No. 990-974 entitled "Licensing Report on High-Density Spent Fuel Racks" dated August 1983. FDSAR Amendment No. 79, Section 8.4, Page 8-5 indicates that a temperature gradient of 21°F is used to compute the thermal loading on the spent fuel pool floor slab. [Note that the total moment for the case of Dead Load + Thermal Load + SSE should have been 0.1103×10^6 in#/in rather than 0.104×10^6 in#/in as stated in Table 8.7 of Reference 2.]
- On December 20, 1983, GPU Nuclear forwarded to the NRC a revision (Reference 3) to TSCR No. 111 and FDSAR Amendment No. 79. A revised page 8-5 to FDSAR Amendment No. 79 was enclosed that changed the assumed temperature drop across the spent fuel pool floor slab to 60° F. Also, a revised Technical Specification page 5.3-2 was submitted that changed the 21° F temperature gradient to a maximum of 60° F. However, the total moment for the case of Dead Load + Thermal Load + SSE was inadvertently not revised from the value provided in Reference 2. The correct value, based on a Thermal Load due to a differential temperature of 60° F, is 0.1782×10^6 in#/in. Since the allowable moment is 0.3495×10^6 in#/in, the resulting factor of safety is 1.71.
- In Reference 4 the NRC staff requested additional information. In question B.3, the staff reiterated the original assumed temperature differential of 21° F across the slab depth. The GPU Nuclear response (Reference 5) repeated the question and answered it without correcting the assumed slab temperature differential.
- The staff, on July 27, 1984 (Reference 6), forwarded to GPU Nuclear a copy of Technical Evaluation Report (TER) C5506-525, dated July 5, 1984, prepared by Franklin Research Center (FRC). In subsection 3.4.4 on page 23 of the TER, the thermal load is indicated as being due to a 21° F temperature differential across the fuel pool floor slab. However, the NRC letter that forwarded the TER requested resolution of three specific issues unrelated to thermal loading on the fuel pool floor slab.
- License Amendment No. 76, for the spent fuel pool expansion to 2600 fuel assemblies, was issued by the NRC by letter dated September 17, 1984. The letter cites both Reference 1 and Reference 3. However, the enclosed safety evaluation report, in section 2.4 on page 10, states that the evaluation is based on the review performed by FRC documented in the TER appended to the SER as Appendix A. The TER revision, dated August 15, 1984 still contained the 21°F temperature differential in section 3.4.4 on page 24. In contrast, the Technical Specification bases issued with Amendment 76 reflected the change submitted on December 20, 1983 by GPU Nuclear, revising the analysis assumption of 21° F to 60° F.

- Références:
- 1) GPU Nuclear letter to the USNRC (P.B. Fiedler to Director of Nuclear Reactor Regulation) dated September 2, 1983, Technical Specification Change Request No. 111
 - 2) Facility Description and Safety Analysis Report Amendment No. 79
 - 3) GPU Nuclear letter to the USNRC (P.B. Fiedler to Director of Nuclear Reactor Regulation) dated December 20, 1983
 - 4) USNRC letter to GPU Nuclear (Dennis M. Crutchfield to P.B. Fiedler) dated June 1, 1984, Request for Additional Information for Evaluation of Spent Fuel Pool Expansion
 - 5) GPU Nuclear letter to the USNRC (P.B. Fiedler to Dennis M. Crutchfield) dated June 13, 1984, Spent Fuel Pool Expansion – Additional Information
 - 6) USNRC letter to GPU Nuclear (Walter A. Paulson to P.B. Fiedler) dated July 27, 1984