



ZS-2010-0369

10CFR50.54(bb)

November 2, 2010

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Zion Nuclear Power Station, Units 1 and 2
Facility Operating License Nos. DPR-39 and DPR-48
NRC Docket Nos. 50-295 and 50-304

Subject: Notification of Changes to the Irradiated Fuel Management Plan

- References:
- 1) Letter from R. M. Krich (Commonwealth Edison) to NRC, "Notification of the Irradiated Fuel Management Plan for Zion Nuclear Power Station, Units 1 and 2," dated February 14, 2000
 - 2) Letter from Patrick R. Simpson (Exelon Generation Company) and Patrick Daly (ZionSolutions) to NRC, "Application for License Transfers and Conforming Administrative License Amendments," dated January 28, 2008
 - 3) Letter from Patrick Daly (ZionSolutions) to NRC, "Notification of Amended Post-Shutdown Decommissioning Activities Report (PSDAR) for Zion Nuclear Power Station, Units 1 and 2," dated March 18, 2008
 - 4) Letter from John B. Hickman (NRC) to John A Christian (ZionSolutions) "Order Approving Transfer of Licenses and Conforming Amendments Relating to Zion Nuclear Power Station, Units 1 and 2," dated May 4, 2009

This letter provides notification of changes to the Irradiated Fuel Management Plan for Zion Nuclear Power Station (ZNPS) as required by 10 CFR 50.54, "Conditions of Licenses," paragraph (bb). These changes are necessary for consistency with information provided previously in support of the application for transfer of the Zion operating licenses for the purpose of decommissioning.

The Irradiated Fuel Management Plan for ZNPS was submitted shortly after the Zion units were shut down (Reference 1). That initial plan described the creation of the Spent Nuclear Fuel Island for storage of Zion's irradiated fuel. It also outlined a plan to transfer the fuel directly from the spent fuel pool to the Department of Energy (DOE), based on the DOE spent nuclear fuel disposal planning at that time.

A change to the spent fuel management strategy was described in the application for license transfer (Reference 2) and the amended PSDAR (Reference 3), including the estimated costs and available funds for decommissioning, dismantlement, and spent fuel management. As described in those references, Zion *Solutions*, LLC (ZS) will construct an independent spent fuel storage installation (ISFSI) and will transfer the irradiated fuel and greater than Class C (GTCC) low level radioactive waste to the ISFSI and provide its stewardship until completion of the D&D activities. Our agreements with Exelon Generation Company (EGC) include rights that will enable ZS to return the decontaminated site and transfer the ISFSI, spent fuel, remaining GTCC waste, and associated NRC licenses to EGC by about CY2020. Once these transfers are accomplished, EGC would maintain the irradiated fuel, including ongoing financial responsibility, until title to and possession of the irradiated fuel is transferred to the Department of Energy for its ultimate disposition.

NRC review of this change to the spent fuel management strategy and its associated funding and cost estimate was accomplished as part of the NRC approval of the transfer of the Zion operating licenses to ZS (Reference 4). This notification is submitted only to provide complete documentation for the 10 CFR 50.54(bb) notification requirements relating to the Irradiated Fuel Management Plan.

This submittal demonstrates that the planned actions will be consistent with NRC requirements for licensed possession of irradiated nuclear fuel and that the actions will be implemented on a timely basis with adequate funding. Implementation of the planned actions does not require further NRC authorization. If there are any additional significant changes to the Irradiated Fuel Management Plan we will notify the NRC in accordance with 10 CFR 50.54(bb).

If you have any questions about this letter, please contact me at 224-789-4042.

Respectfully,



Tom R. Tramm
Director, Regulatory Affairs and Quality Assurance

cc: Regional Administrator — NRC Region III