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November 1, 1984

Mr. H. R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. NUCLEAR REGULATORY COMMISSION
Washington, D. C. 20555

Attention: Mr. J. R. Miller, Chief
Operating Reactors, Branch 3

Gentlemen:

DOCKET NOS. 50-266 AND 50-301
USE OF REPAIRED FUEL ASSEMBLY
POINT BEACH UNIT 2 CYCLE 11
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

The NRC Safety Evaluation for Amendment Nos. 28 and 32, dated November 2, 1977, for Point Beach Nuclear Plant License Nos. DPR-24 and DPR-27, respectively, included consideration and approval of using fuel assemblies which have been repaired by replacement of a damaged fuel rod with an inert rod, or by simply removing a damaged rod and leaving a "water hole". Provisions for using such repaired assemblies were accordingly incorporated in Point Beach Technical Specification 15.5.3.A.1. The NRC staff Safety Evaluation also provided that the Commission be notified of future use of fuel assemblies with damaged fuel rods removed. The purpose of this letter is to provide information consistent with that provision.

The final loading pattern for Point Beach Unit 2 Cycle 11 includes a fuel assembly (N02) which has been repaired by removal of a peripheral fuel rod which was known visually to be leaking. Sipping results following removal of the leaking fuel rod confirmed that this was the only defective fuel rod in the fuel assembly. Assembly N02 had previously experienced two cycles of irradiation at relatively low burnup. Because of its fissile content it was selected as the best replacement available for a Unit 2 fuel assembly (M55) which had sustained a torn grid strap. To avoid the risk of possible grid damage due to additional fuel handling, it was decided to not use an inert rod in assembly N02 after the damaged rod was removed.

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To accommodate use of assembly N02 with a "water hole" in place of the damaged fuel asembly, Westinghouse performed additional core analyses for Unit 2 Cycle 11. A new safety evaluation was performed for the revised core loading pattern. A safety evaluation similar to that performed previously in support of Amendment Nos. 28 and 32 discussed above was also performed for using assembly N02 with a water hole. Results were reported in a revision to the Westinghouse Unit 2 Cycle 11 Reload Safety Evaluation. The change in bottom nozzle stresses due to the different location of the machined slot and the effects of small changes in localized crossflow were assessed and found to be acceptable. Similarly, the small changes in the nuclear design due to relocation of some fuel assemblies and burnable poison assemblies have no adverse impact on the parameters used in the Cycle 11 accident analyses. Thermal and hydraulic considerations were also evaluated. Since assembly N02 has a higher burnup than related symmetric assemblies and since the peak F_{xy} does not occur near the water hole location, assembly N02 will not be in a high power, limiting core location any time in the cycle. Based on the Westinghouse revised Reload Safety Evaluation the conclusions of the original Reload Safety Evaluation still apply.

Very truly yours,

C. W. Fay

Vice President-Nuclear Power

C. W. Fay

Copy to NRC Resident Inspector