



**CENTERIOR
ENERGY**

Donald C. Shelton
Vice President - Nuclear
Davis-Besse

300 Madison Avenue
Toledo, OH 43652-0001
(419) 249-2300

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United States Nuclear Regulatory Commission
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Subject: Continued Use of a Reconstituted Fuel Assembly During Cycle 9

Gentlemen:

This letter confirms Toledo Edison's (TE) plan to re-insert fuel assembly (FA) NJ0542 into the core for the Davis-Besse Nuclear Power Station (DBNPS) upcoming Cycle 9. This FA was reconstituted during the seventh refueling outage (7RFO) for use in Cycle 8. As described in TE's letter dated October 15, 1991 (Serial Number 1990), FA NJ0542 was reconstituted to replace a defective fuel pin. Since the defective fuel pin was in a location adjacent to a control rod guide tube, the FA was reconstituted by removing the upper end fitting, extracting the defective fuel pin, moving an adjacent fuel pin into the location vacated by the defective fuel pin, inserting a solid stainless steel (SS) filler rod into the location vacated by the good pin, and then replacing the upper end fitting. The resulting configuration has the SS pin surrounded by heated rods (i.e., there are no adjacent cold walls). Letter Serial Number 1990 supplemented a previous License Amendment Request (LAR) to revise the FA description in Technical Specification (TS) 5.3.1 (Serial Number 1924, dated May 31, 1991 and Serial Number 1976, dated August 29, 1991).

On October 29, 1991 (Log Number 3609), the Nuclear Regulatory Commission (NRC) issued License Amendment 166, which revised TS 5.3.1 to allow the replacement of defective fuel rods with stainless steel filler rods. The NRC Safety Evaluation Report (SER) for Amendment 166 noted that a Babcock and Wilcox (B&W) topical report (BAW-2149) was being prepared documenting departure-from-nucleate-boiling (DNB) tests in support of the use of the B&W Critical Heat Flux (CHF) correlation for the proposed filler rod configuration. The SER also stated that since the repaired assembly was to be located in a non-limiting core location with greater than five percent margin relative to the lead power generation fuel assemblies, this margin was sufficient to assure that the repaired assembly would not be limiting with respect to DNB occurring during Cycle 8.

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Operating Companies:
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Toledo Edison

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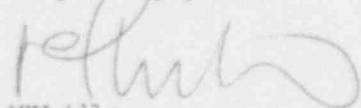
The NRC staff has not completed its review of B&W Topical Report BAW-2149, "Evaluation of Replacement Rods in BWFC Fuel Assemblies", which was submitted to the NRC in December 1991. Therefore, as was done during 8RFO, Toledo Edison is informing the NRC of its plan to again use FA NJ0542 during the upcoming fuel cycle. The use of reconstituted FA NJ0542 during Cycle 9 continues to be acceptable for the following reasons:

1. The physical configuration of FA NJ0542 has not been changed since Cycle 8, e.g., the stainless steel filler rod is in the same location within the FA, and previous structural and mechanical assessments remain acceptable.
2. During Cycle 9, FA NJ0542 will be located on the core periphery, in core location P-12. During Cycle 8, FA NJ0542 was located near the core periphery in core location C-5.
3. The minimum thermal margin for FA NJ0542 for Cycle 8 was greater than 40 percent relative to the lead power generation fuel assemblies. The thermal margin for this FA for Cycle 9 will be even less limiting -- greater than 100 percent. As noted above, NRC acceptance for use of this FA for Cycle 8 was based on its non-limiting core location with a minimum thermal margin of greater than 5 percent.
4. Cycle-specific fuel vendor analyses have verified that acceptable safety margins are maintained.
5. Conformance to existing design criteria and safety analysis limits has been confirmed.

The DBNPS is scheduled to restart from 8RFO on April 27, 1993 and, therefore, Toledo Edison requests NRC concurrence with the continued use of FA NJ0542 during Cycle 9 by April 16, 1993.

If you have any questions regarding this matter, please contact Mr. Robert W. Schrauder, Manager - Nuclear Licensing, at (419) 249-2366.

Very truly yours,



MKL/dlc

cc: A. B. Davis, Regional Administrator, NRC Region III
J. B. Hopkins, NRC Senior Project Manager
S. Stasek, DB-1 NRC Senior Resident Inspector
J. R. Williams, Chief of Staff, Ohio Emergency Management Agency,
State of Ohio (NRC Liaison)
Utility Radiological Safety Board