

DEC 1 1978

MEMORANDUM FOR: D. B. Vassallo, Assistant Director for Light Water Reactors, OPM

FROM: R. L. Tedesco, Assistant Director for Reactor Safety, DSS

SUBJECT: MIDLAND SUPPLEMENTAL QUESTIONS

Plant Name: Midland Plant, Units 1 and 2

Docket Numbers: 50-329/330

Milestone Number: 12-24

Licensing Stage: OL

Responsible Branch and Project Manager: LWR #4 D. Hood

Systems Safety Branch Involved: Core Performance Branch

Description of Review: Staff Positions and Second Round Questions

Requested Completion Date: December 1, 1978

Review Status: Incomplete

The Reactor Physics Section of the Core Performance Branch has prepared the attached Supplemental Questions on Midland.

Original signed by
Robert L. Tedesco

Robert L. Tedesco, Assistant Director
for Reactor Safety
Division of Systems Safety

Attachment:

cc: S. Hanauer
R. Mattson
R. Boyd
S. Varga
D. Hood
W. LeFave
D. Fieno
K. Kniel
W. Brooks

Central Files
NRR-Reading
CPB-Reading

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Contact: W. Brooks, x27577

OFFICE →	DSS/CPB	DSS/CPB	DSS/CPB	DSS/RS		
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DATE →	11/22/78	11/28/78	11/28/78	11/1/78		

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232.5 The information presented in Revision 14 to the FSAR is insufficient to permit a review of the criticality of the proposed high density fuel storage system. The following information will be required in order to complete the review:

1. A description of the racks including, in particular, those features affecting their reactivity.
2. A description of the assumptions made in the analysis, including those regarding the reactivity of the fuel to be stored, credit taken for absorbers in the fuel and racks, temperature of water in the pool, and placement of assemblies in racks.
3. A description of the analytical models used, including the results of code verifications and calculational biases and uncertainties.
4. A discussion of the effect on the reactivity of uncertainties in material properties and geometry of the racks and fuel placement in the racks.
5. A discussion of the effect of abnormal fuel distributions on the reactivity of the racks - for example, a dropped assembly lying across the racks, an assembly lowered into a non-designed location (if possible), and other abnormal configurations.
6. The results of the criticality analysis should be presented for the nominal rack design and fuel placement, the various calculational and mechanical uncertainties should be given along with the total uncertainty.