



**Consumers  
Power  
Company**

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March 30, 1984

83-03 #4

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PAC		SCS	orig + 3
SGA		ML	
ENF		File	has

MIDLAND ENERGY CENTER PROJECT  
UNIT NO 1, DOCKET NO 50-329  
UNIT NO 2, DOCKET NO 50-330  
CORE SUPPORT STRUCTURE BOLTING  
FILE: 0.4.9.75 SERIAL: 28071

- References:
- 1) Letter, J W Cook to J G Keppler, Same Subject, dated May 19, 1983
  - 2) Letter, J W Cook to J G Keppler, Same Subject, dated November 1, 1983
  - 3) BAW 1784 "Summary Report of NRC/B&W Lynchburg Meeting on Reactor Vessel Internals Bolting, May 6, 1983"
  - 4) Letter, J W Cook to J G Keppler, Serial 26649, dated January 9, 1984

Referenced letter #1 and the report (Reference #3) describe cracking of core support structure bolting in operating B&W plants.

Referenced letters #2 and #4 describe the anticipated corrective actions. This letter updates reference 4.

In order to minimize the need for inservice replacement of core support structure bolting, Consumers Power has elected to replace the (ASME SA 453 Grade 660 (A-286) bolts with fasteners which have been fabricated from alternative materials as follows:

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<u>Bolted Connection</u>	<u>Replacement Material</u>	<u>Anticipated Completion</u>	
		<u>Unit 2</u>	<u>Unit 1</u>
Upper Core Barrel to Core Support Shield	Inconel X750-HTH	06/29/84	*
Lower Core Barrel to Lower Grid Assembly	60-Inconel X750-HTH and 48-316 Stainless Steel	06/29/84	*
Surveillance Specimen Holder Tube to Thermal Shield	Inconel X750-HTH	06/29/84	*
Lower Grid Assembly to Flow Distributor	Inconel X750-HTH	Complete	*
Upper Thermal Shield Restraint to Core Barrel	316 Stainless Steel**	03/30/84	*
Thermal Shield to Lower Grid Assembly	Inconel X750-HTH	Complete	Complete

\*Schedules have not been established for Unit 1 but plans call for replacements to be complete prior to system hydrostatic testing.

\*\*Due to galling during removal, remnants of some A-286 bolts will be left in this joint. In each case, two of the three bolts holding the restraint block to the core barrel will be replaced. Two bolts are sufficient to maintain joint integrity.

The safety implications of failed core support structure bolting have not been specifically determined for Midland. Section 4 of Reference 3 does describe the safety implications associated with the failure of the upper and lower core barrel joints and concludes that failure of the joint would not be a significant safety concern. Because these bolts perform the most significant core support function, even though core support structure bolting failure may not be a significant safety concern, Consumers Power Company considers this condition reportable under the criteria of 10 CFR 50.55(e).

An FSAR change notice has been initiated to reflect the new bolting materials. Field change packages and piece part drawings have been issued to support the replacement activities. The detailed design analysis of the design changes is finished pending final B&W reviews. The reactor internal assembly drawing will be revised following the accomplishment of the change out of the bolting materials. The B&W Owners Group Bolting Task Force is preparing a report describing the problem and the corrective actions.

Another report will be submitted on or before September 28, 1984.

*James W. Cook*

JWC/HWS/lr

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