

JAN 11 1983

MEMORANDUM FOR: K. Kniel, Chief, GIB  
O. Parr, Chief, ASB  
V. Benaroya, Chief, CHEB  
L. Hulman, Chief, AEB

FROM: Elinor G. Adensam, Chief  
Licensing Branch No 4  
Division of Licensing

SUBJECT: TESTIMONY FOR MIDLAND OL HEARINGS

The ASLB for Midland has scheduled hearings of the first of the OL contentions for the week of February 14, 1983 at Midland, Michigan. The contentions for which the staff has agreed to prepare testimony for those hearings areas follows:

<u>Contention No.</u>	<u>Subject</u>	<u>Reviewer/Branch</u>
Sinclair No. 3	Water Hammer/Internal AFW Header	A. Serkiz/GIB J. Ridgely/ASB
Sinclair No. 4	Steam Tube Integrity - Effects of Cooling Pond Water	C. McCracken/CHEB
Sinclair No. 13	Severe (Class 9) Accidents	J. Mitchell/AEB

Copies of the above contentions are attached for your information. The contentions have recently been renumbered by the board. Contention nos. 3 and 4 were considered for summary disposition but, upon counsel of OELD, DL has chosen to litigate them in hearing. In order to support the scheduled hearing dates, testimony on the above contentions must be supplied to DL by January 25, 1983. DL and OELD would like to receive a status report (preferably verbal) from each reviewer on or about January 19, 1983. A first draft of the testimony would suffice in lieu of this report. Each of the affected reviewers have been contacted regarding these contentions during the past week. Any questions regarding the contentions, hearings or schedule should be directed to R. W. Hernan (X29789).

*1st Ronald Hernan for*

Elinor G. Adensam, Chief  
Licensing Branch No. 4  
Division of Licensing

OFFICE	SURNAME	DATE	ENCLOSURES				
			Contentions 3, 4 and 13				
			8301140547 830111 PDR ADOCK 05000329 G PDR				

cc: R. Hernan  
D. Hood  
W. Paton  
A. Serkiz  
J. Ridgely  
C. McCracken  
J. Mitchell  
T. Novak  
R. Vollmer  
R. Mattson  
H. Thompson

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SURNAME ▶	RHernan:eb	EAdensam				
DATE ▶	1/11/83	1/11/83				

Sinclair Contention 13 (formerly revised new contention 3)

The assessment of the likelihood and severity of "severe accidents" (or class 9 accidents) in the DES is inadequate in that it relies for methodology and probability of occurrence of severe accidents on the Rasmussen Report (WASH-1400) DES 5-45-66. However, a new NRC report reveals that the Rasmussen methodology, at least as it pertains to more severe accidents (total meltdown), significantly understates the risk of such accidents by a factor of 20. Precursors to Potential Severe Core Damage Accidents: 1969-1979, a Status Report, NUREG/CR-2497 (June 1982). This report shows that probabilities of severe accidents should be derived on the basis of actual accident sequences and significant events, rather than the Rasmussen methodology. The failure of the DES to incorporate this analysis cripples the entire Class 9 analysis of the DES.

Sinclair Contention 3 (formerly original contention 28)

Contention 3 deals with the water hammer problem of pressurized water reactors of the Midland type. This problem is identified as one of the unresolved safety issues applicable to Midland 1 & 2 in the SER, C-4. Babcock and Wilcox (B&W) plants with an internal auxiliary feedwater (AFW) feed ring of the same design as Midland in recent events, have shown a marked susceptibility to internal damage of the feed ring as a result of water hammer. From this, reduced cooling in the steam generators could occur as a result of inadequate AFW flow following loss of normal feedwater flow. (NRC Response to Interrogatory 7) Since this effect involves critical safety systems, the Task A-1 report (Jan., 1980) states that systematic review procedures in the OL review process will require the Applicant to:

- 1) address potential water hammer problems in various systems;
- 2) demonstrate that there are adequate design features and operating procedures to prevent damaging water hammer events; and 3) expand the preoperational testing program to insure that these design features and operating procedures do prevent damaging water hammer events.

However, the SER does not indicate that these criteria have been met by the Applicant. As a result of this omission, the findings required by 10 CFR §§ 50.57(a)(3)(i) and 50.57(a)(6) cannot be made.

Sinclair Contention 4 (formerly original contention 30)

The degradation of steam tube integrity due to corrosion induced wastage, cracking, reduction in tube diameter, and vibration induced cracks is a serious unresolved safety problem at the Midland nuclear plant. It is admitted that the chemistry of the cooling water is critical to prevention of steam tube failure (NUREG-0886). However, the fact that these plants depend on cooling water from the cooling pond increases the likelihood of corrosion and poor water chemistry because the DEIS states that the plant dewatering system will first be discharged to the cooling pond. (DEIS at 5-2). That means that many wastes, including radioactive materials from leaks and spills on the reactor site, can enter the cooling pond and disrupt the chemistry of the pond. Therefore, due to this contribution of an undetermined amount and quality of ground dewatering inflows to the cooling pond, the NRC's bland assurance that corrosion is unlikely due to the lack of sodium thiosulfate, is unsatisfactory. (NRC Response to Interrogatory 9.j.) In fact, due to the contribution of groundwater, the NRC is not fully aware of the likely constituents of the cooling pond, and the findings required by 10 CFR §§ 50.57(a)(3)(i) and 50.57(a)(6) cannot be made.