



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

*J. Lee*  
*Heller*  
*Kane*

OCT 28 1982

ocket Nos.: 50-329/330

MEMORANDUM FOR: Elinor G. Adensam, Chief  
Licensing Branch #4, DL

THRU: *JM* James P. Knight, Assistant Director  
for Components & Structures Engineering, DE

FROM: Franz P. Schauer, Chief  
Structural Engineering Branch, DE

SUBJECT: MIDLAND ASLB HEARINGS - STRUCTURAL ENGINEERING INPUT -  
JUDGE HARBOUR'S CONCERNS

Plant Name: Midland Plant Unit 1 and 2  
Licensing Stage: OL  
Responsible Branch: LB #4, D. Hood and R. Hernan, LPM  
Requested Completion Date: October 28, 1982  
Status: Complete

In response to the verbal request of M. Wilcove of OELD, we have reviewed the transcript provided by OELD and have determined that the SEB area of concern identified by Judge Harbour applies only to consideration of structure-to-structure interaction.

The recent SSER No. 2 of October, 1982, addresses Judge Harbour's concern for the postulated structure-to-structure interaction between the Turbine Building and the Control Tower and Electrical Penetration Wings of the Auxiliary Building and, also, between the Service Water Pump Structure and the Circulating Water Intake Structure. Section 3.7.2.4 (Structural-to-Structure Interaction) of SSER No. 2 discusses the potential for interaction between these buildings and provides information on clearance provided between these respective buildings for critical dynamic conditions. The analysis of actual and required clearance values as discussed in this section indicate that there is no contact between these structures, even considering loading conditions that include the Safe Shutdown Earthquake (SSE).

*F. Schauer*  
Franz F. Schauer, Chief  
Structural Engineering Branch  
Division of Engineering

cc: See next page

Contact: F. Rinaldi, SEB, X24921  
8408020182 840718  
PDR FOIA  
RICE84-96 PDR

# MIDLAND - OUTSTANDING CONTENTIONS

Date 11/8/82

**ROUTING AND TRANSMITTAL SLIP**

TO: (Name, office symbol, room number, building, Agency/Post)

1. W. Luk

Action	File	Note and Return
Approval	For Clearance	
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

D. H. ... attached the following ...  
 ... of SSER # 2 that H. Singh and ...  
 ... will ... at Dec. 1982 session on ...  
 ... Building.

... of the remaining contentions ...  
 ... by the pertinent SSER sections ...  
 ... that address them and my suggestions on ...  
 ... for oral testimony and when these contentions ...  
 ... addressed.

See

DO NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

FROM: (Name, org symbol, Agency/Post)

Room No.—Bldg.

Phon. No. 2-8153

OPTIONAL FORM 41 (Rev. 7-76)  
 Prescribed by GSA  
 FPMR (41 CFR) 101-11.206

Date 11/6/82

**ROUTING AND TRANSMITTAL SLIP**

TO: (Name, office symbol, room number, building, Agency/Post)

1. D. Head

Action	File	Note and Return
Approval	For Clearance	
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

Dor ... providing you with the information ...  
 ... that I have forwarded to OELD with ...  
 ... respect to responding to outstanding ...  
 ... contentions.

See

DO NOT use this form as a RECORD of approvals, concurrences, disapprovals, clearances, and similar actions.

FROM: (Name, org symbol, Agency/Post)

Room No.—Bldg.

Phon. No. 2-8153

OPTIONAL FORM 41 (Rev. 7-76)  
 Prescribed by GSA  
 FPMR (41 CFR) 101-11.206

ENCL. 1

1 of  
J. Kane  
11/8/82

Subject: Midland Project - Identification of pertinent SSER # 2 Sections To Be Sponsored by Geotechnical Engineering Section and Consultant @ Dec. 6, 1982 session on DGB.

DIESEL GENERATOR BUILDING

Sections 2.5.4.4.2, 2.5.4.5.1, 2.5.4.5.2 (Section titled Diesel Generator Building, p. 2-4), 2.5.4.5.4, 2.5.4.5.5, 2.5.4.5.6, 2.5.4.6.3 and 2.5.4-8.

# Enclosure 2

1 of 4  
11/8/82  
J. Kane

## Stamiris Contention No. 4

<u>Contention</u>	<u>Where Staff Response Can Be Found</u>	<u>Is there need for oral testimony?</u>	<u>NRC Staff Reviewers</u>
4.A.1)	SSER #2 Section 2.5.4.4.2, pg. * 2-24	Yes. Need to explain how staff has resolved concern for not meeting original PSAR specification (DEC. 6 '82 Session)	J. Kane
4.A.2)	SSER #2 Section 2.5.4.4.2 * Pg. 2-33 & 2-34	Yes. Need to explain how future differential settlements have been addressed. This is affected by results of J. Matra study as to whether the future estimated settlements are acceptable. (Dec. 6 '82 Session)	J. Kane
4.A.3)	SSER #2 Sections 2.5.4.1.3 (Pg. 2-4) 2.5.4.2 (Pg. 2-14) 2.5.4.5 (Pg. 2-42)	Yes. Need to indicate that the staff is satisfied with explorations and establishment of properties of fcm. materials including the extent of cohesionless soil pockets. Liquefaction & seismic shakedown evaluations address the loose cohesionless materials. (Dec. 6 '82 or Nov. 15 '82 Session)	J. Kane

\* The pages cited are normally the first page of the SSER section. The staff response is included in the discussions which continue after the identified first page of a given section.



Encl. 2

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11/2/82  
J. Kane

Stamins Contention No. 4 (cont.)

<u>Contention</u>	<u>Where Staff Response Can Be Found</u>	<u>Is there need for oral testimony?</u>	<u>NRC Staff reviewers</u>
4.A.5)	SSER #2 Section 2.5.4.4.2 (Pg. 2-31)	Yes. Need to explain that completing borings & lab testing in DGB area eliminated the problem with piezometers (DEC. 6 '82 SESSION)	J. Kane
4.B.	SER Section 2.5.6.6 (Pg. 2-50) and 2.5.6.7 (Pg. 2-50)	No. (NOV. 15 '82 SESSION)	J. Kane
Issue on dike overtopping to be addressed by R. Gonzales SER Section 2.4.4			
4.C.a thru f. (Supplemented 4/20/81)	SSER #2 <del>Section 2.5.4.5.6 (Pg. 2-44)</del>	See attached Oct. 14, 1982 memo (Lear to Adamsam) for staff response to STAMINS CONTENTION 4.C.B. Yes. There is a need to clarify this contention before being able to completely respond. HGEB and SEB have interpreted this contention differently. (NOV. 15 '82 SESSION)	J. Kane F. Rinaldi P. Chen
Also see attachment for discussion on soil input required for dynamic analysis			
Refer to Encl. to Oct. 14, 1982 memo from G. Lear to E. Adamsam with subject "Midland ASLB Hearing - Geotechnical Engineering Input" for our previous response to 4.C.b. (Copy attached)			

Stamiris Contention No. 4 (cont.)

<u>Contention</u>	<u>Where Staff Response Can Be Found</u>	<u>Is there need for oral testimony</u>	<u>NRC Staff Reviewers</u>
4.D.1) & 4.D.2)	<p>See attached Oct. 14, 1982 memo (Lear to Adensam) for staff response to these contentions</p> <p>Direct response to these contentions given in Encl. to Oct. 14, 1982 memo from Lear to Adensam (Copy attached)</p>	<p>No, if identified direct response is available @ hearing (NOV. 15 '82 Session)</p>	<p>J. Kane            R. Gonzalez</p>

Warren Contentions

1.	<p>SSER #2            Section 2.5.4.4.2 (Pg. 2-24)            and Section 2.5.4.4.3 (Pg. 2-34)</p>	<p>Yes. There is a need to address discussion of Mrs. Warren on components of random fill and to give reasons for staff position on preloading effectiveness. (DEC. 6 '82 Session)</p>	J. Kane
2.B	<p>SSER # 2            Section 2.5.4.5.5 (Pg. 2-42)</p>	<p>Yes. It would be helpful for the staff to summarize why liquefaction is not a problem for the structures which Mrs. Warren has identified. (NOV. 15 '82 Session)</p>	J. Kane

Encl. 2

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11/8/82  
J. Kane

<u>Warren Contention</u>	<u>Contentions (cont.) Where Staff Response Can Be Found</u>	<u>Is there need for oral testimony?</u>	<u>NRC Staff reviewers</u>
3.	See F. Rinaldi & P. Chen	(DEC. 6 '82 Session)	F. Rinaldi P. Chen

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Simclair Contention No. 24 & Marshall Contention No. 2

Simclair 24	SSER #2, Section 2.5.4.8	Yes. These very broad contentions could best be addressed orally (Dec 6 '82 Session)	J. Kane
Marshall 2	SSER #2, Section 2.5.4.4.2		