



FAX 3/9/79

To: DARL HOOD, NAR

From: R. Shewmaker, IE

SUBJECT: Input of Questions for  
10 CFR 50.54(f) Ltr.  
to Consumers on MIDLAND

2 pages follow

Shewmaker Depo Exp 6  
1-19-81 WFB

### MIDLAND QUESTIONS

1. The licensee has stated that the fill has settled under its own weight. What assurance is provided that the fill has not settled locally under
  - a. Structures with rigid mat foundations as portions of the auxiliary building or service water pump structure?
  - b. Class I piping in the fill resulting in lack of continuous support causing additional stress not accounted for in design?
2. How has the lack of compaction and the increase in soil compressibility effected the seismic response spectra used in design and therefore the soil-structure interaction during seismic loading?
3. After current preloading material is removed will additional borings be taken to ascertain that the material has been compacted to the original requirements set forth in the PSAR and construction license application?
4. Since the foundation material is variable as described in 50.55(e) interim report number 4, how can long term differential settlement be predicted to assure reliable startup of the D/G in the event of emergency?
5. What tolerance does the D/G manufacturer require on the alignment of the D/G for reliable operation and startup?
6. Preliminary information indicates that the piping in fill under and in the vicinity of the D/G building have gross deformations induced either prior to or during the preload program. What is the extent of deformation? Is this deformation beyond predicted? If so, what plans are being taken to correct the condition?
7. The borated water storage tanks and diesel fuel oil tanks have not yet been constructed and are to be located in questionable plant fill of varying quality. Why should those Class I structures be constructed prior to assuring the foundation material is capable of supporting such structures for the plant life?

### MIDLAND QUESTIONS

8. PSAR Figure 2.5-48 shows estimated ultimate settlements which indicate a differential settlement across individual mat foundation and within individual structures. Was this differential accounted for in the original design of the mat foundation and in the design of structural member within the structure? If not, what effect does this differential settlement have on additional stresses induced in the mat or in structure members such as slab-beam-column connections?
  
9. Based on the information provided in CPCo interim report number 4, it appears that the tests performed on the exploratory borings indicate soil properties that do not meet the original compaction criteria set forth in the PSAR and specification for soils work. What assurance is there that the soil under other Class I structures not accessible to exploratory boring meet the control compaction requirements?

/

Midland Nty of 8/16/79

Vassallo, Thornburg, Knight, Rubenstein, Joga, Olmstead, Stovall  
Hood, Leiberman, Lowmeyer, Haas, Spraul, \_\_\_\_\_  
Backman

8/20/79 licensee requested separation of

- 1) DG
- 2) SAFETY
- 3) QH

Answer due by 9/2/79

+) new area seismic g-value

Draft letter by NRR on Ind. problem  
Haas memo

DG blig

possibility of fixes - these are fair

Knight - concern of answering overall how we have confidence; Knight thinks we need an order to do specific things to assure and provide us with facts to satisfy us

QH - work already done; need a wide spread program to investigation work already done; attack the organization of the QH program; licensee's involvement

~~Shawmaker~~  
Shawmaker deputy 7  
1-19-81 E.H.B.



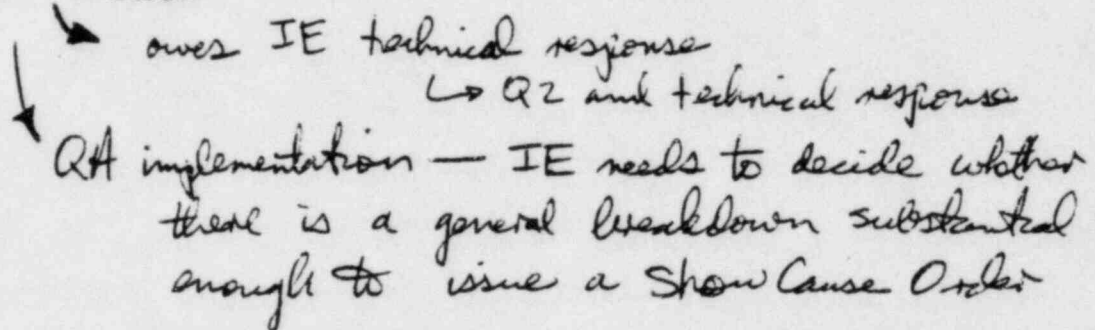


IE report -- May '79

Appeals Board directions:

- 1. adequate QA program
- 2. tech qualifications
- 3. management attitude
- 4. demonstration of adequacy of QA program

NRR - Vassallo



Thompson will get R-III input

NRR →

Shawmaker Sept 7  
1.19.81 CERB

(42) 5/26

*OWM* **ROUTING AND TRANSMITTAL SLIP**

		ACTION	
1	TO (Name, office symbol or location) <i>Ed Sheuemaker</i>	INITIALS	CIRCULATE
		DATE	COORDINATION
2		INITIALS	FILE
		DATE	INFORMATION
3		INITIALS	NOTE AND RETURN
		DATE	PER CONVERSATION
4		INITIALS	SEE ME
		DATE	SIGNATURE

**REMARKS**

*The Region's (III) problem may be resolved if Knight writes something or if Christensen gets something out of WRA in writing.*

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

FROM (Name, office symbol or location) <i>[Signature]</i>	DATE
	PHONE

OPTIONAL FORM 41  
AUGUST 1957  
GSA FPMR (41CFR) 100-11.206

48-16-8194-1 552-103 GPO 5041-101

*Sheuemaker depo E 8  
1-19-81 WFB*

ENCLOSURE 2

ATTENDEES

J. Knight  
D. Skovholt  
W. Haass  
D. Vassallo  
S. Varga  
L. Rubenstein  
D. Hood  
H. Thornburg  
R. Shewmaker  
R. Backman  
W. Omstead  
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J. Giray  
J. Spraul