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APR 28 1982

MEMORANDUM FOR: Elinor Adensam, Chief
 Licensing Branch No. 4
 Division of Licensing

THRU: James P. Knight, Assistant Director
 for Components and Structures Engineering
 Division of Engineering

FROM: George Lear, Chief
 Hydrologic and Geotechnical Engineering Branch
 Division of Engineering

SUBJECT: UNDERPINNING AUXILIARY BUILDING - PHASE 2

Plant Name: Midland Plant, Units 1 and 2
 Licensing Stage: OL
 Responsible Branch: LB No. 4, D. Hood, PM
 Requested Completion Date: April 23, 1982

Enclosed is our Geotechnical Engineering Section listing of the remaining review issues requiring resolution before the start of Phase 2 underpinning operations for the Auxiliary Building. This listing was prepared by J. Kane and these issues have been discussed with the Applicant at past Design Audits and at a meeting in D. Hood's office with Consumer's representative on April 15, 1982.

The enclosed listing summarizes the issues which remain in geotechnical engineering following our review of the March 31, 1982 letter with enclosures from J. W. Cook to H. R. Denton on the above subject.

Original signed by George Lear

George Lear, Chief
 Hydrologic and Geotechnical
 Engineering Branch
 Division of Engineering

w/enclosure

- R. Vollmer
- T. Sullivan
- J. Knight
- G. Lear
- L. Jeller
- R. Gonzales
- D. Hood

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OFFICE	II. Singh, COE	HGEB:DE	HGEB:DE	HGEB:DE	A/D: CSE:DE
SURNAME	S. Poutos, GEI	JKane JDL	L.H. [unclear]	GLear G	JPKnight
DATE	J. Kane	4/26/82	4/27/82	4/27/82	4/27/82

Midland Plant, Units 1 and 2
Docket Numbers: 50-329/330

SUBJECT: AUXILIARY BUILDING UNDERPINNING - PHASE 2 REMAINING
REVIEW ISSUES

Prepared by: Joseph D. Kane, DE, HGEB, GES

- 2. Provide details of strain gage installation on Main Auxiliary Building during underpinning and frequency of readings. Verify that required gages are installed.*
- 4. Provide load test procedures for verifying hard clay foundation modulus and for correlating with cone penetrometer test.*
- 5. Provide piezometer locations and depths for construction dewatering and locations and depths of temporary wells.*
1. Provide the actual locations of installed deep seated bench marks DSB-AS1 and DSB-AS2. Indicate distances from the more deeply founded Main Auxiliary Building walls. Indicate the necessary changes in tolerance criteria column on Drawing C-1493(Q) caused by the change in location from original DSB-AS.
 2. NRR requests notification that the following monitoring devices are installed and properly operating prior to the start of Phase 2.

DSB-1W DMD-1W
DSB-1E DMD-1E
DSB-2W DMD-11
DSB-2E DMD-12
DSB-3W DMD-13
DSB-3E
DSBAS-1
DSBAS-2
DSB-AN

- 3. Provide details of strain gage installation on Main Auxiliary Building during underpinning and frequency of readings. Verify that required gages are installed.*
- 4. Provide load test procedures for verifying hard clay foundation modulus and for correlating with cone penetrometer test.*
- 5. Provide piezometer locations and depths for construction dewatering and locations and depths of temporary wells.*
- 6. With respect to monitoring movement of FIVP, either indicate on Drawing C-1493(Q) the remedial action to be taken if 3/8 inch settlement is reached or provide copy of Specification 7220-C-200 which should describe the actions to be taken.*

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4. Provide load test procedures for verifying hard clay foundation modulus and for correlating with cone penetrometer test.

5. Provide piezometer locations and depths for construction dewatering and locations and depths of temporary wells.

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