



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

OCT 15 1982

Docket Nos. 50-329/330

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

THRU: *JK* James P. Knight, Assistant Director
for Components & Structures Engineering
Division of Engineering

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

SUBJECT: HYDROLOGIC ENGINEERING INPUT TO STAFF TESTIMONY

Plant Name: Midland Plant Units 1 and 2
Licensing Stage: OL
Responsible Branch: Licensing Branch No. 4, D. Hood, PM
Requested Completion Date: October 14, 1982

In response to a verbal request from W. Paton and M. Wilcove of OELD, attached is our input for staff testimony in preparation for the upcoming ASLB hearings scheduled for October 27 to November 4, 1982.

Our input consists of two parts. Part I identifies sections in the SER and SSER #2 that describe the staff's safety evaluation of the permanent dewatering system. Part II identifies sections in the SER and SSER #2 that address specific contentions on dewatering.

Mr. Paton requested that we respond to Warren Contentions 2.A and 2.B and Stamiris Contentions 4.C.b, 4.D.1, 4.D.2, and 4.D.3. Of these, our input only addresses Warren Contention 2.A and Stamiris Contention 4.D.3. Warren Contention 2.B and Stamiris Contentions 4.D.1, 4.D.2 and part of 4.C.b involve soils issues and have been responded to by J. Kane.

Although a part of Stamiris Contention 4.C.b addresses dewatering and its relationship to the Service Water Pump Structure (SWPS) we interpret the contention as questioning the structural analysis of the SWPS, (e.g. what water levels were actually addressed in design), rather than the dewatering system. Thus the contention should be addressed by the Structural Engineering Branch.

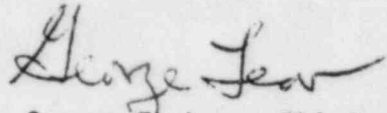
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Elinor Adensam

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This input was prepared by R. Gonzales who can be reached at ext. 25028.



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

cc w/o encl:
R. Vollmer

cc w/encl:
W. Paton
D. Hood
M. Miller
F. Schauer
L. Heller
J. Kane
M. Fliegel
R. Gonzales

Midland Plant, Units 1 and 2
Docket Numbers 50-329/330
Hydrologic Engineering Input
to Staff Testimony

PART I

Hearing Topic: Permanent Dewatering.

The following sections in the SER and/or SSER #2 contain the staff safety evaluation of the permanent dewatering system:

- (1) SER - sections 1.12.4, 2.4.5.1, 2.4.6.2, 2.4.6.3 and 2.4.6.4
- (2) SSER #2 - sections 2.4.6.2, 2.4.6.3 and 2.4.6.4

PART II

These contentions address dewatering:

Warren Contentions 2.A
Stamiris Contentions 4.D.3

Warren Contention 2.A

Because of the known seepage of water from the cooling pond into the fill soils in the power block area, permanent dewatering procedures being proposed by Consumers Power Company are inadequate, particularly in the event of increased water seepage, flooding, failure of pumping systems and power outages. Under these conditions, Consumers cannot provide reasonable assurance that stated maximum levels can be maintained.

Response - There are several parts to this contention. The following lists applicable parts of the SER and/or SSER #2 that address this contention:

- (1) increased water seepage - Section 2.4.6.2 of the SER (see pages 2-25 and 2-26) describes the potential sources of recharge i.e., seepage, that were considered. These were as follows:
 - A) Tittabawassee River
 - B) Bullock Creek
 - C) Dow's Chemical Pond
 - D) Precipitation (rainfall)
- (2) flooding - 1A, 1B, 1-D above concern flooding effects on the dewatering system. Flooding from pipe leakage is covered in section 2.4.6.3 of the SER and the same section in the SSER.
- (3) failure of pumping systems - Section 2.4.6.4 of the SSER #2 addresses potential pumping system failures (see Table 2.1 of the SSER).

- (4) power outages - A backup diesel is being provided. (See section 2.4.6.4 of the SSER, - item 4 in the second to last paragraph).

Stamiris Contention 4.D. part 3

Permanent dewatering

- (1) -----
(2) -----
(3) to the extent subject to failure or degradation, would allow inadequate time in which to initiate shutdown, thereby necessitating reassessment of these times.

Therefore, unless all the issues set forth in this contention are adequately resolved, the licensee actions in question should not be considered an acceptable remediation of soil settlement problems.

Response - The staff's evaluation of failure of the permanent dewatering system and its effect regarding the time available for mitigative measures has been provided in sections 2.4.6.2 and 2.4.6.4 of both the SER and SSER #2.