

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

MEMORANDUM FOR:

Thomas Novak, Assistant Director for Licensing

FROM:

Darrell G. Eisenhut, Director

Division of Licensing

SUBJECT:

BOARD NOTIFICATION 83-106

I have determined that the information transmitted to me by the enclosed memorandum (memo Warnick to Eisenhut dtd 7/21/83) should be forwarded to the board and parties for Midland according to the procedure of Office Letter No. 19. Please issue this as BN 83-106.

Darrell G. Eisenhut, Director Division of Licensing

Enclosure: As Stated

7/29/75 20/B3

Docket Nos: 50-329 OM, OL and - 50-330 OM, OL

MEMORANDUM FOR: The Atomic Safety and Licensing Board

for the Midland Plant, Units 1 and 2

FROM: Thomas M. Novak, Assistant Director

for Licensing, Division of Licensing

SUBJECT: BOARD NOTIFICATION - NEW INFORMATION RELATING

TO SOILS REMEDIAL WORK, WELDING AND THE DOW

CONTRACT (8N 83-106)

This information is provided in accordance with the present NRC procedures regarding Board Notification.

The following information deals with new developments in various aspects of the Midland project. Portions of the notification may be relevant to the Midland CM/OL proceedings in areas of soils remedial work, HVAC systems, Quality Assurance and the Dow Chemical legal proceedings.

Any additional information relevant to these issues will be provided in a future Board Notification.

Thomas M. Novak, Assistant Director for Licensing Division of Licensing

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Docket Nos: 50-329 OM, OL and 50-330 OM, OL

MEMORANDUM FOR: The Atomic Safety and Licensing Board

for the Midland Plant, Units 1 and 2

FROM:

Thomas M. Novak, Assistant Director for Licensing, Division of Licensing

SUBJECT:

BOARD NOTIFICATION - NEW INFORMATION RELATING TO SOILS REMEDIAL WORK, WELDING AND THE DOW CONTRACT (BN 83-106)

This information is provided in accordance with the present NRC procedures regarding Board Notification.

The following information deals with new developments in various aspects of the Midland project. Portions of the notification may be relevant to the Midland OM/OL proceedings.

- A. On July 11, 1983, the licensee suspended all Service Water Pump Structure (SWPS) related dewatering well drilling because on July 9, 1983, in two separate drillings obstructions were encountered. Presently, drilling in the vicinity of the SWPS remains stopped pending completion of corrective action. On July 20, 1983, the WRC was informed that one of the obstructions was concrete pipe and not the bedding material as originally thought.
- B. The most recent Stone & Webster weekly report indicates several problems including untimely resolution of outstanding HCR's. The problems defined in the S&W report indicate a continuing lack of attention to detail in implementation of soils remedial work. The licensee's response to Region III's question as to why soils work should continue is attached.
- C. On June 29, 1983, resumption of safety-related welding work on the Heating, Ventilation and Air Conditioning systems was authorized by the NRC. The work had been suspended November 30, 1982.
- D. The lead welding engineer in the remedial soils program was fired June 29, 1983. The firing followed a investigation into his instructing an individual to falsify weld rod withdrawal slips. This incident has no safety significance since the welding involved structures considered temporary.

E. On July 14, 1983, Dow Chemical Company filed suit against Consumers Power Company attempting to terminate the contract involving Consumers supplying process steam to Dow. The suit claims Consumers has misrepresented their ability to complete Midland within reasonable time and cost.

Thomas M. Novak, Assistant Director for Licensing Division of Licensing

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> REGION III 799 ROOSEVELT ROAD GLEN ELLYN, ILLINOIS 60137

MEMORANDUM FOR: R. F. Warnick, Director, Office of Special Cases

THRU:

J. Harrison, Chief, Section 2, Midland

FROM:

R. B. Landsman, Reactor Inspector

SUBJECT:

DIESEL GENERATOR BUILDING CONCERNS AT MIDLAND

At the recent hearing before Congressman Udall's subcommittee, I expressed my concern regarding the structural adequacy of the diesel generator building because of numerous structural cracks that have occurred throughout the building over the years. I also expressed the same concern during the recent ASLB hearings. Mr. Eisenhut has requested me to document the basis of my concerns about the building so an independent review group can analyze them.

My first concern deals with the finite element analysis that Consumers Power Company (CPCo) used to show that the building is structurally sound. Their model of the building assumed a very rigid structure without any cracks. The building has numerous cracks, reducing the rigidity of the structure. The effects of these cracks have not been taken into account in the analysis. CPCo's interpretation of the settlement data as a straight line approximation always stems from their position that the building is too rigid to deform as indicated by actual settlement readings. The settlement of the building occurred over a period of time during different phases of construction. It is this time dependent effect that was also not used in their model. Even CPCo expert Dr. Corely testified at the ASLB hearings that the analysis should have "taken into account cracking and time dependent effects" in order to give correct results. Finally, the staff's official position, as stated by Dr. Schauer, on CPCo's analysis was, "The staff takes no position with regard to that analysis."

My second concern deals with the acceptance of the diesel generator building in the SSER #2 which was subject to the results of an analysis to be performed by the NRC consultants using the actual settlement values. The consultants testified at the ASLB hearing that this analysis gave unacceptable results and this portion of the SSER should be stricken. They are basing their unacceptable results and comments on their finding of

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JUL 1 9 1983 R. F. Warnick very high stresses obtained in areas where no cracks exist. Therefore, the actual settlement values are not accurate enough (are in error) to be used in an analysis. The consultants, as well as CPCo, ran a linear analysis (structure always in the elastic range) instead of a plastic analysis which would allow a redistribution of loads in the structure. Therefore, supposed areas of high stress, where cracks are not located, may not exist due to redistribution of loads. Finally, the staff's official position, as stated by Mr. Rinaldi, on this analysis as performed by the consultants, was that the actual settlement values could not be relied upon to determine if the diesel generator building meets regulatory requirements. My third concern deals with the fact that we are not following normal engineering practice in accepting the building by using a crack analysis approach because there is no practical method available today to analyze a complex structure with cracks in it. The basis of this concern is that there are no formulas available that can estimate stresses in a complex stress field like those which exist in this building. Thus, the evaluation of the structure based on the staff's crack analysis using empirical unproven formulas to determine the rebar stresses is unacceptable. My fourth concern deals with the staff accepting the building by relying on a crack monitoring program to evaluate the stresses during the service life of the building. If cracks exceed certain levels, recommendations will be made for maintaining the structural integrity of the building. The basis for my concern deals with the lack of crack size criteria and the lack of formulated corrective action to be taken when the allowed crack sizes are exceeded. These concerns which I have just enumerated are also shared by members of Mr. Vollmer's engineering staff, as well as their consultant. These concerns were documented in the ASLB hearing transcripts of December 10, 1982, prior to my ever expressing my concerns before the ASLB hearing or Congressman Udall's subcommittee. In summary, since it is impossible to analyze this severely cracked structure to the total staff's approval, I recommend some remedial structural fixes be undertaken to ensure the structural integrity of the building to provide an adequate margin of safety. Ross B. Landsman Reactor Inspector

cc: DMB/Document Control Desk (RIDS)

February 18, 1983

BOARD NOTIFICATION NO. 83-16

Document Control 50-329/330 OM, OL NRC PDR PRC System NSIC

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Docket Nos: 50-329 NM, OL and 50-330 NM, OL

MEMORANDUM FOR: The Atomic Safety and Licensing Board for the

Midland Plant, Units 1 and 2

FROM:

Thomas M. Novak, Assistant Director

for Licensing

Division of Licensing

SUBJECT:

NOTIFICATION OF VIOLATION AND PROPOSED IMPUSITION OF CIVIL PENALTIES (8N-83-16)

In accordance with present NRC procedures regarding Board Notifications, the enclosed Notice of Violation and Proposed Imposition of Civil Penalties issued February 8, 1983, is being provided as information material and relevant to safety issues in the Midland OM/OL proceeding. This Notice of Violation was based on Consumers Power Company's (CPCo) failure to implement an adequate quality assurance program as it related to the installation of electrical, mechanical and civil components in the diesel generator building and the action of quality control (OC) supervisors instructing OC inspection to suspend inspection if excessive deficiencies were found during the performance of inspection. This notification further supplements my letter of December 7, 1982, (BN-82-126) which, in part, forwarded a Preliminary Notification of a significant reduction in safety-related work-in-progress imposed by CPCo as a result of significant quality assurance and equipment concerns identified by this NRC inspection. Also enclosed is a press release regarding this matter.

Thomas M. Novak, Assistant Director for Licensing Division of Licensing

Enclosures: As stated

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