



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

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Mr. Wendell H. Marshall
RFD 10
Midland, Michigan 48640

Dear Mr. Marshall:

This is in reply to your letter of September 4, 1979 which asks several questions regarding the sinking of the Diesel Generator Building and cracks in other buildings which have occurred at Midland Plant, Unit Nos. 1 and 2. As noted to you in my letter of July 5, 1979, these matters are currently the subject of an ongoing investigation by NRC's Office of Inspection and Enforcement (I&E) and of a 10 CFR 50.54(f) request by our Office of Nuclear Reactor Regulation. Our review has recently acquired the additional services of the U. S. Corps of Engineers in Detroit, Michigan and of the Energy Technology Engineering Center in Canoga Park, California.

Your fifteen listed questions can be grouped into two areas of inquiry: (1) Cause of the Problem, and (2) Remedial Actions. We consider your questions numbered 7, 10, 11, 13 and 14 to be in the former category, and the remaining questions to be in the latter category.

Cause of the Problem

Our preliminary findings and conclusions as to the cause of the problem were reported in Mr. James G. Keppler's letter of March 15, 1979 following detailed investigations by I&E inspectors. The March 15 letter describes a February 23, 1979 meeting during which NRC summarized its preliminary investigation findings and a subsequent meeting on March 5, 1979 during which Consumers Power Company responded to these findings. A copy of this letter and its enclosures are enclosed. I find this March 15, 1979 letter to be responsive to your questions in this category to the extent that these matters are understood at this stage of our continuing review. The March letter is also responsive to your request regarding the substance of the February 23 and March 15 meetings.

One of your questions on the cause of the problem (question 13) asked how the public can be assured that proper geological studies were performed to determine ground conditions before construction was started. Our findings in the March 15, 1979 letter indicate that the problem does not result from site geological matters, but rather from the plant backfill and associated procedures used. The staff's review of the Midland site

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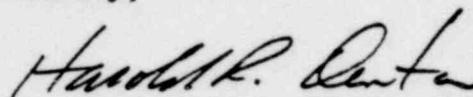
geology and that of our consultant, the U. S. Geological Survey, was reported in Section 3.3 of our Safety Evaluation Report, dated November 12, 1970. Results of our ongoing review of the geology described in FSAR Section 2.5, and the review of our consultants, will be reported in our SER for operating licenses, once issued. This review, although not completed, is in advanced stages and continues to confirm that the problem does not result from geology.

Remedial Actions

Your remaining questions concern remedial actions. The remedial actions completed, in progress, and planned are described in (1) the applicant's response to our 10 CFR 50.54(r) requests, and (2) the applicant's 10 CFR 50.55(e) notification and interim reports. These documents are listed in Enclosure 1 hereto, and copies are available at the local public document room, the Grace Dow Memorial Library in Midland. Our evaluation of these remedial actions will be reported upon completion of our review.

I find the above documents to be responsive to your questions in this category which are directed to the Midland site. I note that your question 6 is not directed to Midland, but rather asks if a permanent dewatering system is installed at all other nuclear power plants. Not all nuclear power plants have or need dewatering systems. The need for dewatering systems results from such site-dependent factors as ground water level in relation to structures, types of soils underneath foundations and potentials for liquifaction, and other design approaches such as structural waterproofing.

Sincerely,



Harold R. Denton, Director
Office of Nuclear Reactor Regulation

Enclosures:

1. List of References
2. JGKepler letter dtd 3/15/79

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Midland, MI Route 10
September 4, 1979

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Denton:

Recent publicity concerning the sinking of the Diesel Building and serious cracks in other buildings at the nuclear plant being built at Midland, MI, indicate future troubles. In view of this, what is NRC doing to properly safeguard the public health and safety from the following:

1. Sinking buildings?
2. Cracks in other buildings which implies sinking?
3. Improper support to structures, as example, the service water intake building with foundations on backfill?
4. Cracked walls in auxiliary building which contain important safety equipment?
5. Why is it necessary to install a permanent de-watering system?
6. Is a permanent de-watering system installed at all other nuclear power plants?
7. Has the large 880 acre artificial cooling pond caused excessive water which contributes to the building settlement thus causing the cracks?
8. Why is it now necessary to build caissons under the auxiliary building? Are these caissons now being built under other buildings?
9. Are the caissons necessary; if so, why were they not built before the auxiliary building was constructed (I believe the foundations are put down before any building is erected)?
10. Consumer's Power Company states that all problems can be corrected - but why did the problems occur in the first place?
11. Were these problems caused because of inadequate engineering? Were they caused because of inadequate quality assurance program?
12. What is being done to prevent further sinking of the building at this nuclear power plant?
13. How can the public be assured that proper geological studies were performed to determine ground conditions before construction was started?
14. What studies, if any, were carried out to insure the non-settlement of buildings due to ground water seepage from the 880 acre artificial pond.
15. How was the pond sealed to prevent water seepage into the building area?

At meetings held on the 23rd of February, 1979, and March 5, 1979, at NRC Region 3 Office in Glen Ellyn, IL, the Diesel Engine Building settlement was discussed. At these meetings what was done about the cracking, de-watering, other building settlements, and caissons problems?

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Mr. Harold R. Denton, Director
September 4, 1979
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Since the AEC, your predecessor agency, violated the siting regulations by allowing the construction of the nuclear plant within the confines of Midland, MI, what action is being taken by NRC to insure that this plant will not continue sinking which would damage the buildings? And, finally, what assurance does the public have that other buildings are not in jeopardy?

I await your answers to the questions posed.

Yours very truly,

Wendell H Marshall
Wendell H. Marshall
Mapleton Intervenors

WHM/jy

cc: Senator Carl Levin
Senator Donald Riegle, Jr.

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