



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

OCT 5 1983

MEMORANDUM FOR: George Knighton, Chief
Licensing Branch No. 3
Division of Licensing, ONRR

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

SUBJECT: PRELIMINARY ASSESSMENT OF WATERFORD 3, CONCRETE MAT
CRACKING AND WATER SEEPAGE ISSUE

- References:
1. Memo to D. Eisenhut, et al, from E. Christenbury, dated September 22, 1983, subject: "Waterford 3 Report on Water Seepage and Concrete Cracking" with enclosures (Attachment 1).
 2. Memo to Commissioners from D. Eisenhut, dated September 15, 1983, subject: "Inspection and Enforcement Inquiry Team Report on Waterford QA Allegations (Board Notification No. 83-133)"
 3. Applicant's Answer to Joint Intervenor's Motion to Reopen Contention

This is in response to your recent verbal request for a quick review of the above references. Dr. John Ma of Structural Engineering Section A, and Dr. Raman Pichumani of Geotechnical Engineering Section, Structural and Geotechnical Engineering Branch have performed a review of references 1 and 2 above and reached the following preliminary conclusions:

1. Depending on the type, size, nature and cause, if the concrete cracks and water seeps through, the subject issue could imply a significant safety concern affecting the integrity of the structure.
2. The issues involved are rather complex, and more information beyond those provided in the above references, such as the structural analysis, design strength degradation, material and quality control, etc., are needed to form a sound technical basis for a recommendation on whether to reopen the operating license proceeding.
3. We expected receipt of a report from the licensee addressing the subject issue on September 30, 1983. We received the report (reference 3 above) on October 4, 1983 and will need time to review it.

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4. In addition to the review of items 2 and 3 above, we need to perform a design audit of the concrete mat and to discuss the issue with the involved I&E and applicant staff prior to reporting our assessment findings and recommending means for resolving the issue, as appropriate.

Based on the above, we feel that more time is needed. It is difficult to set a target date for completing the review at this time; however, after review and further discussion of the information identified above and the completion of the item 4 review task, we should be able to provide you with our evaluation in about three weeks. Our estimated target for input to you is November 15, 1983.

Your expeditious effort to assist us in implementing the above task items 2, 3 and 4 is requested.

For your information, please note that the request (Ref. 1) for review of the subject issue was directed to three offices. Therefore, it seems appropriate for your branch to coordinate the review effort among the offices to ensure a timely development of NRR staff position on the subject issue.

If you have any questions pertaining to this memo, please contact me at 49-28085.



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

Attachment:
As stated
(w/o it's enclosures)

cc: R. Vollmer
J. Knight
T. Novak
J. Wilson
D. Jeng
J. Ma