



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

PDR

JUL 26 1979

MEMORANDUM FOR: Robert E. Jackson, Chief
Geosciences Branch, DSS

THRU: Lyman W. Heller, Leader
Geotechnical Engineering Section *LWH*
Geosciences Branch, DSS

FROM: John T. Greeves, Geotechnical Engineer
Geotechnical Engineering Section
Geosciences Branch, DSS

SUBJECT: SUMMARY OF SITE VISIT AND LABORATORY
INSPECTION FOR LACROSSE SEP REVIEW

On July 9, 1979, Dr. W. Marcuson, WES, and I met with representatives of Dairyland Power Cooperative in Chicago to discuss the progress of the current soils testing program. On the next day July 10, we visited the LaCrosse site and inspected the location of the recent borings and general site conditions. The following is a summary of these activities and attached is a list of attendees.

Dr. Marshall Silve conducted a tour of the University of Illinois laboratory, explained the details and procedures being used in the current testing program and illustrated initial results. The following comments summarize our observations during our visit.

- a) A minimum of nine stress - controlled cyclic triaxial tests on undisturbed samples are planned for three zones below the foundation level of the reactor foundation.
- b) Based on observation of sample specimens and laboratory handling procedures, the quality of the samples obtained from the field investigation and prepared for testing is expected to be very good.
- c) At the time of our visit three stress-controlled cyclic triaxial tests had been completed and data were available for inspection. For these three tests the results show that the sand responds to cyclic loading similar to a medium dense sand with a gradual increase in strain level and pore pressure with increasing numbers of cycles.

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- d) At the conclusion of the visit Dr. Marcuson and I suggested that consideration be given to (1) adding a fourth zone of tests to represent the hydraulic fill material, (2) adding maximum and minimum density testing for comparison with materials documented in the technical journals and (3) obtain cyclic strength data for the full range of cycles (3 to 20) considered significant for this site.

On Tuesday July 10, Dr. Mysore Nataraja, project engineer for Dames and Moore, conducted a tour of the LaCrosse site. The following comments summarize the observations made during this site visit.

- a) An extra boring (DM-11) was added during the recent field investigation to provide representative data near the intake water crib house. We observed the location of all new borings, the service water intake and discharge lines and the perimeter of safety related structures.
- b) Copies of drawings and reports on foundation details maintained at the site were inspected and discussed. No settlement records for structures were available, but our inspection of the structures at the site and our discussions with site personnel did not reveal any indication of settlement problems.
- c) At the conclusion of the site visit we met with Dames & Moore and Dairyland Power representatives to review the results of our visit to the laboratory on July 9, to request that the safety classification of the service water line be clarified, noted that information on the natural slope conditions east of the site should be obtained, and also noted that the foundation details for the diesel generator building are needed for our review.

In summary, the two day visit satisfied our need for an on site assessment of site conditions and an inspection of the quality of the samples and laboratory testing procedures.

John T. Greeves
John T. Greeves, Geotechnical Engineer
Geotechnical Engineering Section
Geosciences Branch
Division of Systems Safety

Enclosure:
As stated

cc: See next page

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R. E. Jackson

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cc: w/enclosure

D. Eisenhut

J. Knight

J. Wetmore

L. Heller

L. Reiter

J. Shea

C. Hofmayer

H. Levin

J. Greeves

W. Marcuson, WES

E. Gallagher, Region III

PDR

D. Crutchfield

R. Denise

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List of Attendees

University of Ill. Laboratory
Chicago, July 9, 1979

N. S. Nataraja	Dames and Moore
M. Silver	Dames and Moore (Consultant)
W. Marcuson	WES
J. Greeves	NRC
E. Gallagher	NRC - Region III

La Crosse Site
July 10, 1979

N. S. Nataraja	Dames and Moore
R. Shimshak	DPC
J. Parkyn	DPC
W. Marcuson	WES
J. Greeves	NRC