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



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Docket No. 50-213

DEC 13 1978

MEMORANDUM FOR: Donald K. Davis, Chief  
Systematic Evaluation Program Branch, DOR

FROM: Howard A. Levin, Systematic Evaluation  
Program Branch, DOR

SUBJECT: SUMMARY OF MEETING WITH CONNECTICUT YANKEE ATOMIC  
POWER COMPANY - GEOLOGY GEOTECHNICAL AND SEISMIC  
REVIEW

On November 7, 1978, members of the NRC staff met with representatives of Connecticut Yankee Atomic Power Co. (CYAPC) and Northeast Utilities Service Company (NUSCo) (Attendees listed in Enclosure 1) to tour the Connecticut Yankee site, to discuss technical questions relative to the Systematic Evaluation Program (SEP) review of site geology and the geotechnical design of the plant and to identify and obtain information not available on the Connecticut Yankee docket.

The meeting opened with a discussion by Howard Levin, of the Systematic Evaluation Program Branch addressing the purpose of the visit, and the scope of review including an overview of how the information gained will be incorporated within the SEP topical review. The discussions focused on the SEP topics.

- II-4 Geology and Seismology
- II-4.B Proximity of Capable Tectonic Structures in Plant Vicinity
- II-4.D Stability of Slopes
- II-4.F Settlement of Foundations and Buried Equipment

The staff explained that information on topics II-4 and II-4.B is necessary as input to the overall seismic re-evaluation under review in topic III-6, Seismic Design Considerations. Specifically the basic site and regional geologic information including the engineering properties of the site will serve both as input into the Lawrence Livermore Laboratory (LLL) Site Specific Spectra evaluations and as a basis for the staff's overall review of geologic and seismic hazards at Connecticut Yankee.

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The licensee established that the logs of borings and their locations as documented in Figures 2.4-1 thru 2.4-4 of the FSAR were the only records available. The staff questioned the licensee about certain logs that appeared to be missing. NUSCo agreed to look into this further.

Settlement of foundations and buried equipment was considered next. Together the licensee and staff reviewed foundation drawings which indicated that the following Category I structures are founded on rock with the exception noted.

1. Containment Building
2. Primary Auxiliary Building
3. Fuel Storage Building
4. Service Building (2 spread footings on soil)
5. Screen House

It was indicated that settlement had not been monitored through monument observations. However, no evidence of settlement cracking was observed during the site tour. The licensee indicated that the shear wave velocity of the rock exceeds 3000 feet per second. Based upon the fact that all principal safety related structures are founded on rock, that the rock is expected to be very competent and that settlement cracking was not observed, it would appear that settlement of foundations is not a problem. Information regarding the foundation of buried piping was not available at the meeting. The licensee committed to providing this information in addition to detailed foundation drawings of the above structures.

One major slope exists on the north side of the reactor containment building, primary auxiliary building and the fuel storage building. However, there is significant evidence of rock outcropping and light overburden. Therefore stability of this slope as it may affect these structures during a seismic disturbance, is not expected to be a problem.

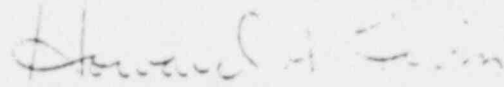
The site tour included observations within the site and along the site boundaries. The tour was designed to give the staff an appreciation of local topography and geology. The geologic observations were of particular interest because of recent preliminary mappings of faults in the area by P. Barosh of Weston Observatory, NRC consultant to the Office of Nuclear Regulatory Research. The staff is currently interacting with Dr. Barosh

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in an effort to fully understand the significance of his findings.  
The licensee will be kept informed of any findings including the  
need for his participation.



Howard A. Levin  
Systematic Evaluation  
Program Branch, DOR

Enclosures:  
As Stated

ENCLOSURE 1  
LIST OF ATTENDEES  
SITE VISIT - CONNECTICUT YANKEE  
NOVEMBER 7, 1978

NRC

Howard Levin, SEPB/DOR  
Thomas Cheng, SEPB/DOR  
Thomas Wambach, ORB#2/DOR  
Thomas Cardone, GSB/DSE

CYAPC

John Ferguson, Senior Engr., Haddam Neck Plant  
R. Gracie, Operations Engr., Haddam Neck Plant

NUSCo

Barry Ilberman, Licensing Engr.  
J. F. Bibby, Assoc. Engr. Civil Engr. Group  
W. R. Rotherforth, Senior Engr. Civil Engr. Group

MEETING SUMMARY DISTRIBUTION

Central files

~~Docket~~

NRC PDR

Local PDR

SEP8 Reading

NRR Reading,

H. Denton

E. Case

V. Stello

D. Eisenhut

B. Grimes

T. Ippolito

R. Reid

G. Knighton

V. Noonan

A. Schwencer

D. Ziemann

D. K. Davis

G. Lainas

P. Check

J. Scinto, OELD

OI&E (3)

R. Fraley, ACRS (16)

H. Smith

SEP8 Members (13)

Licensee

CYAPC

J. Ferguson

R. Gracie

NUSCo

B. Ilberman

J. Bibby

W. Rotherforth