

50-155

August 19, 1982

Distribution
 Docket DMCrutchfield
 HSmith
 ORB Rdg
 NRC PDR
 Local PDR
 NSIC
 REMch
 OELD
 OI&E
 ACRS (10)
 Kenneth Herring
 NSIC
 SVaiga
 RClark
 DVassallo
 JStolz

MEMORANDUM FOR: Dennis M. Crutchfield, Chief
 Operating Reactors Branch #5, DL

FROM: Richard Emch, Project Manager
 Operating Reactors Branch #5, DL

SUBJECT: SUMMARY OF AUGUST 18, 1982 MEETING WITH
 CONSUMERS POWER COMPANY ON BIG ROCK POINT

On August 18, 1982, we met with representatives of Consumers Power Company, (CPC) and NUS Corporation at the NUS offices in Gaithersburg, Maryland to discuss the spent fuel pool expansion. The attendance list and agenda prepared by NUS are enclosed.

T. Bordine indicated that CPC intends to provide additional remote spent fuel pool make-up capacity to ensure that the pool can be cooled to 150°F if normal spent fuel pool cooling is lost. The engineering design has not been completed. The staff agreed with the license that the analysis to demonstrate the structural integrity of the Big Rock Point spent fuel pool will be less complicated at a temperature of 150°F than at boiling temperatures. It will also minimize the uncertainties associated with strength degradations of concrete at elevated temperatures. However, K. Herring pointed out that there is still a discrepancy between the structural modeling of the pool by NUS for this issue and the modeling by D'Appolonia for seismic analysis. R. Jenkins indicated that CPC is aware of the discrepancy and expects to resolve the discrepancy next week. Also, since thermal gradients were not considered in the initial design, acceptability under dead weight loads at normal operating temperatures will be demonstrated.

Original Signed By

Richard Emch, Project Manager
 Operating Reactors Branch #5
 Division of Licensing

SEOI
DSU USE (18)

Enclosures:
 As stated

cc: W Russell
 T Ippolito
 R Bachman
 R Goddard

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 PDR ADDOCK 05000155
 PDR

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| OFFICE | DL:ORB#5 | | | | | |
| SURNAME | REmch | | | | | |
| DATE | 8/19/82 | | | | | |

NRC/CPC/NUS Meeting on Big Rock Point - Spent Fuel Pool Structural
Analysis at NUS Gaithersburg Wednesday, August 18, 1982

NRC

Richard Emch
Kenneth Herring

CPC

Rolfe Jenkins
Ed Wong
Tom Bordine

NUS

Madan Prabhakara
George Antonucci
Howard Eckert
Ming-Der Liu

TOPICS DISCUSSED DURING JULY 19, 1982 MEETING

1. Finite Element Model
 - a. Portion of Structure Modeled
 - b. Boundary Conditions
 - c. Assumptions
 - d. Material/Mechanical Properties
2. Definition of Loads
 - a. Dead Loads
 - Water - 31'
 - Racks - 3 New, 4 Existing
 - Fuel -
 - Equipment -
 - Concrete -
 - b. Seismic
 - Sloshing (TID-7024)
 - Inertia (Floor Response Spectra, Damping)
 - c. Thermal
 - ΔT
 - T_H
3. Calculation of Moments
 - a. ACI 349.1R-80
 - b. Moment Combination
4. Calculation of Moment Capacities
 - a. Standard Procedure
 - b. Force Equilibrium
 - c. Strain Compatibility

TOPICS TO BE DISCUSSED TODAY

1. Modifications to Finite Element Model
2. Cracked Section Thermal Analysis
3. Effect of Cracking on Frequency
4. Selected Topics from July 19 List