

February 03, 2012

MEMORANDUM TO: Michael E. Mayfield, Director
Division of Advanced Reactors & Rulemaking
Office of New Reactors

Thomas Bergman, Director
Division of Engineering
Office of New Reactors

FROM: Michael J. Case, Director */RA/*
Division of Engineering
Office of Nuclear Regulatory Research

SUBJECT: STATUS REPORT ON, "SEISMIC PERFORMANCE OF
MULTIPLE MODULAR REACTORS ON A COMMON
FOUNDATION" AT END OF FUNDING.

The purpose of this memorandum is to request your closeout review of the report on Seismic Performance of Multiple Modular Reactors on a Common Foundation. This report documents the status of the research as of the end of funding. Its intent is to document the research performed at the lab since the progress report dated September 1, 2011. The report describes the generic reactor models that were developed and some early analysis results.

The current regulatory environment was developed based on large reactor complexes that were largely static over the life of the plant. The modular concept allows large variations in the physical plant configuration over the life of the plant as modules are deemed needed and brought to service. The possibility of varying seismic response over the life of the plant may not be fully addressed by the regulatory support documents currently in place. Additionally, the tools used to conduct the analysis have advanced considerably in the past few years as computer technology has become more sophisticated. The research was intended to examine the adequacy of the existing regulatory and analytical tools and to attempt to identify areas where improvement can be made and suggest paths to that improvement. Brookhaven National Laboratory (BNL) has developed some generic models of possible plant designs to conduct this analysis. These models were to be subjected to loadings in various configurations to analyze the response and evaluate the model's performance. The work was suspended in December 2011 due to funding constraints.

CONTACT: Thomas Herrity, RES/DE
(301) 251-7447

M. Mayfield and T. Bergman

- 2 -

In order to support the orderly closeout of the stopped work for the project we request any comments by March 30, 2012. Please feel free to contact me or Thomas Herrity of my staff (at 301-251-7447 or Thomas.Herrity@nrc.gov), if you have any questions.

Enclosure:
As Stated

In order to support the orderly closeout of the stopped work for the project we request any comments by March 30, 2012. Please feel free to contact me or Thomas Herrity of my staff (at 301-251-7447 or Thomas.Herrity@nrc.gov), if you have any questions.

Enclosure:
As Stated

DISTRIBUTION:

C. Aragus, NRO/DARR/TA
S. Magruder, NRO/DARR/APRB
K. Hawkins, NRO/DE/SEB1
T. Herrity, RES/DE/SGSEB
RidsNroDe Resource
RidsNroDeSeb1 Resource
DE r/f

W. Reckley, NRO/DARR/ARB1
B. Thomas, NRO/DE/SEB2
T. Ellis, NRO/DE/TA
RidsNroDarr Resource
RidsNroDarrAprb_2 Resource
RidsNroDeSeb2 Resource

ADAMS Accession No.: ML12012A096

| | | | |
|--------|--------------|--------------|-----------|
| OFFICE | RES/DE/SGSEB | RES/DE/SGSEB | D: RES/DE |
| NAME | T. Herrity | R. Hogan | M. Case |
| DATE | 01/11/12 | 02/03/12 | 02/03/12 |

OFFICIAL RECORD COPY