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Department of Nuclear Energy

July 20, 1983

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Mr. Lawrence C. Ruth
Containment Systems Branch
Division of Systems Integration
Office of Nuclear Reactor Regulation
Mail Stop P-904
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Ruth:

Enclosed is the June monthly report for the activities sponsored by your Branch. Also included are the computerized budget summaries and the fee recovery cost status for each program requiring it. I would suggest that you and your staff review the reports to determine whether there are any discrepancies. If there are, please notify the principal investigator.

We hope this meets with your approval. If there are any questions regarding format, distribution, or budget reporting, please contact Mr. A. J. Weiss, Administrative Technical Assistant, FTS 666-4473.

Sincerely yours,

for Walter Y. Kato
Deputy Chairman

WYK/jw

Enclosures

cc: S. Boyd, NRC
W. R. Butler, NRC
B. L. Grenier, NRC
W. Houston, NRC
A. J. Weiss, BNL
NRC Technical Monitors
BNL Technical Monitor

A-5

MONTHLY HIGHLIGHTS FOR JUNE 1983

"Generic Containment Analysis"

[redacted]

BNL Principal Investigator: G. Maise (FTS 666-2615)

NRC Project Manager: L. Ruth, Containment Systems Branch

NRC Technical Monitors: Project 1 L. Ruth, Containment Systems Branch
Project 2 A. Notafrancesco, Containment Systems Branch

1. Progress to Date:

Project 1

(i) On June 1, 1983, BNL sent to NRC a report on the verification of hydrogen burn option in CONTEMPT4 code, as required under Task 1 of this project.

(ii) BNL has made additional computer runs, using CONTEMPT 4 code for the BWR Mark III small break accident problem (a CLASIX-3 case). A major objective of this study is to evaluate the effect of gas-structure radiation heat transfer on drywell temperature. A report of this study will be sent to NRC in July, 1983.

(iii) BNL has compared the three spray models in CONTEMPT codes. They are the spray efficiency model originally in CONTEMPT 4 and CONTEMPT-LT/28, the EI model in CONTEMPT-LT/28, and the heat transfer coefficient model that was added to CONTEMPT 4 by BNL recently. A report on this study will be sent to NRC in July, 1983. The report will also include descriptions of the spray carryover capability, added recently to CONTEMPT 4 by BNL, corrections and modifications to the EI model and some corrections to the CONTEMPT codes.

Project 2

BNL met with NRC staff on June 20, 1983 in order to agree on the specific objectives of this project. Following the meeting, work was initiated on literature survey relative to heat transfer methodologies in containment compartments.

2. Status of Program by Tasks:

Referring to NRC Schedule 189, dated February 24, 1983,

Project 1

Task 1 is 100% complete.
Task 2 is 10% complete.

Project 2

Task 1 is 10% complete.
Task 2 is 0% complete.

3. Problems or Delays:

None.

4. Next Reporting Period:

Project 1

Work will continue on the CONTEMPT 4/MOD4 code application and sensitivity studies.

Project 2

BNL will continue review of heat transfer correlations for containment compartments.