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November 18, 1985

Dr. M. S. Dunenfeld, Program Manager
Core Performance Branch
Division of Systems Integration
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

B2533

Dear Dr. Dunenfeld:

Attached is the October 1985 Monthly Activities Report for the Core Performance Branch programs at PNL relating to fuel performance.

Sincerely,

M. D. Freshley

M. D. Freshley, Manager
Nuclear Fuels and Materials Section

MDF:jz

Attachments

cc: HE Ransom (DOE-RL)
Director, Division of Systems Integration,
ATTN: K. Pulsipher
CH Berlinger (NRC)
~~LS Rubenstein (NRC)~~
R Lobel (NRC)
LS Rubenstein (NRC)

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BATTELLE, PACIFIC NORTHWEST LABORATORY

OCTOBER 1985 MONTHLY ACTIVITIES REPORT
FOR
NRC CORE PERFORMANCE BRANCH PROGRAMS

EXECUTIVE SUMMARY

REVIEW OF HIGH BURNUP LICENSING TOPICAL REPORTS (B2969)

This program is completed and is being closed out.

FSAR (SECTION 4.2, FUEL) REVIEWS (B2544)

No work was done on the project in October. No verbal or written queries concerning confirmatory and/or open issues were received from the NRC.

FUEL OPERATING EXPERIENCE EVALUATION PROGRAM-VI (B2969)

Work continued under Task 3 on the preparation of the draft of the Fuel Performance Annual Report for 1984, NUREG/CR-3950 (PNL-5210) Vol. 2. Because PNL has received input from only three of the five fuel vendors to date, PNL is preparing to transmit to the NRC a request for a one-month shift in the two associated milestones (i.e., complete draft and transmit camera-ready manuscript) in Task 3.

FUEL CODE ANALYSIS AND MAINTENANCE III (B2974)

No work was performed on this program in October other than some word processing for last month's monthly report.

FUEL TOPICAL REPORT REVIEWS (B2976)

The Westinghouse report documenting changes to the PWR PAD Code has been received for review and the review initiated.

The review of Exxon Nuclear Company's (ENC's) power history methodology for calculating end-of-life rod pressures has been added as a task to this program. As a result, this review has been initiated and several audit calculations performed.

PROJECT TITLE: REVIEW OF HIGH BURNUP LICENSING TOPICAL REPORTS

OBJECTIVE:

The objective of this program is to perform the balance of the review and prepare the Technical Evaluation Reports (TER) for each of the five vendor topical reports on extended-burnup effects. The reviews are to be conducted with full awareness of Sections 4.2, 4.3, 4.4, and Chapter 15 of the Standard Review Plan (SRP) to ensure that the effects of high-burnup operation are accommodated for all of the regulatory requirements addressed by these parts of the SRP.

FIN NO.: B2533

PRINCIPAL INVESTIGATOR: C. E. Beyer

PERIOD OF PERFORMANCE: November 7, 1983 to August 31, 1985

REPORTING PERIOD: October 1985

PROJECT STATUS:

1. Work Completed During Period

This program is completed and is being closed out.

2. Problems or Delays

An unresolved safety issue remains in the TER of ENC's extended burnup report.

3. Summary of Progress to Date

Draft questions on the General Electric (NEDE-22148-P), Combustion Engineering (CENPD-269-P), Exxon (XN-NF-82-06(P), Revision 1), Westinghouse (WCAP-10125), and Babcock & Wilcox (BAW-10513P) high-burnup topical reports

were sent to the NRC. Review of Exxon's creep collapse criteria was completed and sent via letter to the NRC. The draft TERS on Combustion Engineering, General Electric, Westinghouse, Babcock & Wilcox, and Exxon Nuclear extended-burnup reports have been completed and sent to the NRC for review.

4. Plans for Next Reporting Period

Program completed.

FINANCIAL STATUS

1. <u>Total Projected Project Cost, \$</u>	<u>Funds Obligated To Date, \$</u>	<u>Balance of Funds Needed, By Fiscal Year, \$</u>	
		<u>FY-1984</u>	<u>FY-1985</u>
169K	169K	0.0K	0.0K

2. Total Costs During the Current Time Period and Cumulative to Date

	<u>Period, \$</u>	<u>Cumulative, \$</u>
a. Direct Salaries	0.0K	66.8K
b. Materials and Services	0.0	0.1
c. ADP Support	0.0	2.6
d. Subcontracts	0.0	0.0
e. Travel	0.0	5.1
f. Indirect Labor Costs	0.2	20.2
g. Other (specify)	0.0	24.6
h. General and Administrative	<u>0.0</u>	<u>49.5</u>
Total	0.0K	168.9K

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Title: Review of High Burnup Licensing Topical Reports

Period: October 1985

<u>Facility</u>	<u>Docket Number</u>	<u>TAC Number</u>	<u>Costs, \$</u>	
			<u>Period</u>	<u>Cumulative</u>
Exxon Nuclear Company	N/A	48067	0.0K	32.2K

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<u>Facility</u>	<u>Docket Number</u>	<u>TAC Number</u>	<u>Costs, \$</u>	
			<u>Period</u>	<u>Cumulative</u>
General Electric Company	N/A	48568	0.0K	24.5K

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<u>Facility</u>	<u>Docket Number</u>	<u>TAC Number</u>	<u>Costs, \$</u>	
			<u>Period</u>	<u>Cumulative</u>
Westinghouse Electric Corporation	N/A	48917	0.0K	23.2K

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Period: October 1985

<u>Facility</u>	<u>Docket Number</u>	<u>TAC Number</u>	<u>Costs, \$</u>	
			<u>Period</u>	<u>Cumulative</u>
Babcock & Wilcox Company	N/A	48917	0.0K -	20.6K

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Period: October 1985

<u>Facility</u>	<u>Docket Number</u>	<u>TAC Number</u>	<u>Costs, \$</u>	
			<u>Period</u>	<u>Cumulative</u>
Baltimore Gas & Electric	50317 50318	48946	0.0K	22.5K

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Period: October 1985

<u>Facility</u>	<u>Docket Number</u>	<u>TAC Number</u>	<u>Costs, \$</u>	
			<u>Period</u>	<u>Cumulative</u>
Common Costs	50-900		0.0K	45.9K