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B2539



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February 13, 1984

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

Dear Dr. Dunenfeld:

Attached is the January 1984 Monthly Activities Report for the Core Performance Branch programs at PNL relating to fuel performance.

Sincerely,

A handwritten signature in cursive script, appearing to read "M. D. Freshley", with a long horizontal flourish extending to the right.

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

MDF:jz

Attachments

cc: HE Ransom (DOE-RL)  
Director, Division of Systems Integration,  
ATTN: SM Boyd  
CH Berlinger (NRC)  
BL Grenier (NRC)  
R Lobel (NRC)  
LS Rubenstein (NRC)  
JC Voglewede (NRC)

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BATTELLE, PACIFIC NORTHWEST LABORATORY

JANUARY 1984 MONTHLY ACTIVITIES REPORT  
FOR  
NRC CORE PERFORMANCE BRANCH PROGRAMS

EXECUTIVE SUMMARY

LICENSING FUEL CODE REVIEWS (B2519)

No work was performed on this program during this reporting period.

FUEL CODE ANALYSIS AND MAINTENANCE (B2520)

The report describing modifications included in the GT2R2 version of GAPCON-THERMAL-2 was completed by word processing and sent to NRC. This completes this program and thus, will not be reported on in further monthly activities reports.

REVIEW OF HIGH BURNUP LICENSING TOPICAL REPORTS (B2533)

Draft questions for the General Electric High Burnup Topical Report were sent to the NRC.

FUEL OPERATING EXPERIENCE EVALUATION PROGRAM-V (B2539)

Work was initiated under Task 1 to obtain LWR fuel operating data for calendar year 1983.

FSAR (SECTION 4.2, FUEL) REVIEWS (B2544)

The input for the Draft Safety Evaluation Reports for Washington Nuclear Project-3 (Milestone 2 of Task 2) and Bellefonte (Milestone 2 of Task 3) was transmitted to the NRC as scheduled.

PROJECT TITLE: FUEL OPERATING EXPERIENCE EVALUATION PROGRAM-V

OBJECTIVE:

The objective of this program is to evaluate and issue a report that summarizes fuel operating performance for CY-1983. This annual report will be used by the NRC staff in the analysis of damage trends and design effects.

FIN NO. B2539

PRINCIPAL INVESTIGATOR: W. J. Bailey

PERIOD OF PERFORMANCE: January 23, 1984 to November 30, 1984

REPORT PERIOD: January 1984

PROJECT STATUS:

1. Work Completed During Period

Work was initiated under Task 1 to obtain LWR fuel operating data for calendar year 1983. The Request for Services from DOE-RL associated with NRC Form 173 Order No. 20-84-166 for \$30K was received and entered into the PNL financial system.

2. Problems or Delays

None.

3. Summary of Progress to Date

Same as 1., above.

4. Plans for Next Reporting Period

Efforts to collect data under Task are to continue.

# FINANCIAL STATUS

1. Total Projected Project Cost, \$	Funds Obligated to Date, \$	Balance of Funds Needed, By Fiscal Year, \$	
		<u>FY-1984</u>	<u>FY-1985</u>
30K	30K	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		--	-
b. Materials and Services		--	-
c. ADP Support		0.0K	0.0K
d. Subcontracts		0.0	0.0
e. Travel		0.0	0.0
f. Indirect Labor Costs		--	-
g. Other		--	-
h. General and Administrative		--	--
	Total	0.2K*	0.2K*

\*Estimated cost (a printout from the PNL financial system is not available yet).

BATTELLE, PACIFIC NORTHWEST LABORATORY

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FSAR (SECTION 4.2, FUEL) REVIEWS (B2544)

The input for the Draft Safety Evaluation Reports for Washington Nuclear Project-3 (Milestone 2 of Task 2) and Bellefonte (Milestone 2 of Task 3) was transmitted to the NRC as scheduled.

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 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 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 July 31, 1984

REPORTING PERIOD: January 1984

PROJECT STATUS

1. Work Completed During Period

Draft questions for the General Electric High Burnup Topical Report (NEDE-22148-P) were sent to the NRC.

2. Problems or Delays

None.

3. Summary of Progress to Date

Draft questions for the General Electric (NEDF-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 NRC.

4. Plans for Next Reporting Period

Wait for responses from fuel vendors on questions.

# 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>
125K	125K	0.0K	

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

	<u>Period, \$</u>	<u>Cumulative, \$</u>
a. Direct Salaries	4.1K	14.4K
b. Materials and Services	0.0	0.0
c. ADP Support	0.0	0.0
d. Subcontracts	0.0	0.0
e. Travel	0.0	1.1
f. Indirect Labor Costs	1.2	4.2
g. Other (specify)	3.0	6.2
h. General and Administrative	2.9	10.2
Total	11.2K	36.1K (29%)

## 3. Total Costs During the Current Time Period and Cumulative to Date for Each Task

	<u>Period \$</u>	<u>Cumulative, \$</u>
Task 1:	0.1K	5.6K
Task 2:	4.0	6.9
Task 3:	0.1	5.6
Task 4:	0.1	5.6
Task 5:	0.1	5.6
Common Costs to all Tasks	6.8	6.8