Battelle

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Telex 15-2874

December 13, 1983

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Dr. Yi-Hsiung Hsii, 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. Hsii:

Attached is the November 1983 Monthly Activities Report for the Core Performance Branch programs at PNL relating to fuel performance.

Sincerely,

M. D. Freshley, Manager Nuclear Fuels Section

MOF:jz

Attachment

cc: HE Ransom (DOE-RL) Director, Division of Systems Integration, ATTN: SM Boyd CH Berlinger (NRC) MS Dunenfeld (NRC) BL Grenier (NRC) RO Meyer (NRC) LS Rubenstein (NRC) M Tokar (NRC) JC Voglewede (NRC)

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## BATTELLE, PACIFIC NORTHWEST LABORATORY

NOVEMBER 1983 MONTHLY ACTIVITIES REPORT FOR NRC CORE PERFORMANCE BRANCH PROGRAMS

#### EXECUTIVE SUMMARY

#### LICENSING FUEL CODE REVIEWS (B2519)

A letter summarizing the results and conclusions of the PAD code (WCAP-8720, Addendum 2) review was sent to NRC.

### FUEL CODE ANALYSIS AND MAINTENANCE (82520)

Several problems were identified during the code verification runs and have been corrected and/or resolved. Comments were received from NRC on the PNL draft letter that reviewed references related to GT-2.

# FUEL OPERATING EXPERIENCE EVALUATION PROGRAM-IV (82521)

The camera-ready manuscript (Milestone 2 of Task 3) entitled "Fuel Performance Annual Report for 1982", NUREG/GR 3602 (PNL-4817), was transmitted to the NRC as scheduled.

## REVIEW OF HIGH BURNUP LICENSING TOPICAL REPORTS (82533)

Draft questions for the Combustion Engineering High Burnup Topical Report (CENPD-269-P) were sent to NRC.

# FUEL OPERATING EXPERIENCE EVALUATION PROGRAM-V (82539)

The requested NRC Form 189 was prepared and transmitted to the NRC as scheduled.

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# FSAR (SECTION 4.2, FUEL) REVIEWS (82544)

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Questions (Milestone 1 in each of Tasks 4, 5, and 6) were transmitted to the NRC as scheduled. The NRC Form 189 was prepared and transmitted as scheduled.

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PROJECT TITLE: FUEL OPERATING EXPERIENCE EVALUATION PROGRAM-V

#### OBJECTIVE:

1.2.47

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.: 82539

PRINCIPAL INVESTIGATOR: W. J. Bailey

PERIOD OF PERFORMANCE: \* to November 30, 1984

REPORT PERIOD: November 1983

PROJECT STATUS:

As requested, the NRC 189 was prepared and transmitted to the NRC as scheduled.

\*Unknown at this time.

## BATTELLE, PACIFIC NORTHWEST LABORATORY

## NOVEMBER 1983 MONTHLY ACTIVITIES REPORT FOR NRC CORE PERFORMANCE BRANCH PROGRAMS

#### EXECUTIVE SUMMARY

## LICENSING FUEL CODE REVIEWS (B2519)

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## FUEL CODE ANALYSIS AND MAINTENANC: 182520)

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Several problems were identified during the code verification runs and have been corrected and/or resolved. Comments were received from NRC on the PNL draft letter that reviewed references related to GT-2.

## FUEL OPERATING EXPERIENCE EVALUATION PROGRAM-IV (82521)

The camera-ready manuscript (Milestone 2 of Task 3) entitled "Fuel Performance Annual Report for 1982", NUREG/CR-3602 (PNL-4817), was transmitted to the NRC as scheduled.

# REVIEW OF HIGH BURNUP LICENSING TOPICAL REPORTS (82533)

Draft questions for the Combustion Engineering High Burnup Topical Report (CENPD-269-P) were sent to NRC.

## FUEL OPERATING EXPERIENCE EVALUATION PROGRAM-V (B2539)

The requested NRC Form 189 was prepared and transmitted to the NRC as scheduled.

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## FSAR (SECTION 4.2, FUEL) REVIEWS (B2544)

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Questions (Milestone 1 in each of Tasks 4, 5, and 6) were transmitted to the NRC as scheduled. The NRC Form 189 was prepared and transmitted as scheduled.

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## 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 extendedburnup 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.: 82533

#### PRINCIPAL INVESTIGATOR: C. E. Beyer

PERIOD OF PERFORMANCE: November 7, 1983 to July 31, 1984

REPORTING PERIOD: November 1983

#### PROJECT STATUS

## 1. Work Completed During Period

Draft questions for the Combustion Engineering High Burnup Topical Report (CENPD-269-P) were sent to NRC.

2. Problems or Delays

None

### 3. Summary of Progress to Date

See No. 1.

## 4. Plans for Next Reporting Period

Complete the draft questions for the Exxon High Burnup Topical Report [XN-NF-82-06(P), Revision 1]. Begin drafting questions for the Westinghouse and Babcock & Wilcox high burnup topical reports.

### FINANCIAL STATUS

The cost runs for November have not been received because the accounting system for this program has just recently been installed. Costs for both November and December will be included in the December Monthly Report. Funding for this program has not been received from DOE-RL, although it is expected in the near future.