UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

JAN 16 2002

Purdue Research Foundation
ATTN: Mr. Thomas B. Wright
1063 Hovde Hall
West Lafayette, IN 47907-1063

SUBJECT: MODIFICATION NO. 7 TO TASK ORDER NO. 9
UNDER CONTRACT NO. NRC-04-97-046

Dear Mr. Wright:

This letter definitizes Modification No. 7 to Task Order No. 9. Accordingly, this task order modification shall be performed in accordance with the attached Statement of Work and in accordance with the contractor's technical proposal dated January 11, 2002. This modification increases the ceiling and obligated amounts by $80,000 from $250,604 to $330,604, and extends the period of performance through November 30, 2002. The effective date of this modification is January 16, 2002. Accordingly, the task order is hereby modified as follows:

The total estimated cost for full performance of Task Order #9 is $330,604 with a period of performance of August 4, 1999 through November 30, 2002. Funds in the amount of $80,000 are being obligated for performance of this modification which hereby increases the obligated amount. The Contractor shall not incur costs for this task order which exceed the cumulative obligated amount of $330,604.

Accounting Data for Task Order No. 9, Modification No. 7, are as follows:

B&R No.:	26015110205
APPN No.:	31X0200.260
Job Code:	W6749
BOC:	252A
RES ID:	RES-C02-354
Obligated Amount of this Action:	$80,000

A summary of obligations under this task order from the date of award through this modification are provided below:

Total FY 99 NRC Obligations:	$ 40,000
Total FY 00 NRC Obligations:	$120,604
Total FY 01 NRC Obligations:	$ 90,000
Total FY 02 NRC Obligations:	$ 80,000
Cumulative Obligations:	$330,604

This modification obligates FY 02 funds in the amount of $80,000

TEMPLATE-ADM001

ADM 02

All other terms and conditions remain unchanged.

Please indicate your acceptance of this task order modification by having an official, authorized to bind your organization, execute three(3) copies of this document in the space provided and return two(2) copies to Deborah Neff, Contract Specialist, at the address listed below. You should retain the third copy for your records.

U.S. Nuclear Regulatory Commission
Division of Contracts & Property Management
Mail Stop T-7-I-2
Washington, DC 20555

If you have any questions concerning this action, please contact Ms. Neff at 301-415-8160.

Sincerely,

for Mary H. Mace, Contracting Officer
Contract Management Branch No. 1
Division of Contracts & Property Management
Office of Administration

Enclosure:
As stated

ACCEPTANCE:

Name
Eric E. Fulkerson
Sr. Contract Manager

Title
JAN 2 4 2002

Date

Modification (No. 7) to The Statement of Work for Task Order #9, "BWR Model Development and Assessment," under Contract # NRC-04-97-046 and Job Code W6749, "Thermal-Hydraulic Research"

Additional Work Requirements (1/16/02 - 11/30/02)

Revise Task 5 and incorporate new Tasks 10 through 15.

Task 5. Provide Technical Assistance to NRC

This task provides technical assistance to NRC by performing additional calculations, making presentations, reviewing technical reports, providing references, and attending meetings as requested by the NRC Technical Monitor.

Estimated Level of Effort: 0.5 staff-month (for this performance period)
Estimated Completion Date: November 30, 2002 (new date)

Task 10. Analyze CISE Adiabatic Tube Test R-291 Using TRAC-M and TRAC-B

This task prepares TRAC-M and TRAC-B input decks for CISE Adiabatic Tube Test R-291. Perform TRAC-M and TRAC-B calculations. Compare the TRAC-M results with the TRAC-B results. Also compare the code results with data. Prepare a letter report in both text and electronic format. Prepare the input decks and the test data assessed in electronic format.

Estimated Level of Effort: 1 staff-month
Estimated Completion date: September 30, 2002

Task 11. Analyze THETIS Boil-Off Tests Using RELAP5 and TRAC-M

Use SNAP to prepare RELAP5 input decks for THETIS Boil-Off Tests 561-2, 551-2, 553-4, 555-6, and 557-8. Perform RELAP5 calculations for these tests. Use SNAP to convert the RELAP5 input decks for TRAC-M, and perform TRAC-M calculations for the tests. (SNAP is expected to be able to convert RELAP5 input decks to TRAC-M input decks by mid-2002.) Compare the results of these two codes. Also compare the code results with THETIS data. Prepare a letter report in both text and electronic format. Prepare the input decks and the test data assessed in electronic format.

Estimated Level of Effort: 3.5 staff-months
Estimated Completion date: November 30, 2002

Task 12. Use RELAP5, TRAC-B, and TRAC-M to Analyze Four THTF Tests

Based on the input decks prepared under Tasks 6 and 7 (using SNAP if necessary), perform RELAP5, TRAC-B, and TRAC-M calculations for THTF Tests 3.07.9B, 3.07.9H, 3.07.9N, and 3.07.9W. Compare the results of these three codes. Also compare the code results with THTF data. Prepare a letter report in both text and electronic format. Prepare the input decks and the test data assessed in electronic format.

Estimated Level of Effort: 2 staff-months
Estimated Completion Date: November 30, 2002

Task 13. Use TRAC-B and TRAC-M to Analyze Three THTF Tests

Prepare TRAC-B and TRAC-M input decks for THTF Tests 3.03.6AR, 3.06.6B,and 3.08.6C. Perform TRAC-B and TRAC-M calculations for these tests. Compare the results of these two codes. Also compare the code results and with THTF data. Prepare a letter report in both text and electronic format. Prepare the input decks and the test data assessed in electronic format.

Estimated Level of Effort: 1.5 staff-months
Estimated Completion Date: November 30, 2002

Task 14. Recalculate THTF Boil-Off Tests

This task is an extension of Task 1. Use the latest TRAC-M to calculate two groups of THTF tests: (1) Tests 3.09.10i, 3.09.10j, 3.09.10l, and 3.09.10m, and (2) Tests 3.09.10k, 3.0910n, and 3.09.10aa to 3.09.10ff. (The tests in the first group were calculated in Task 1 using an earlier version of TRAC-M.) Compare the calculations for the second group of the tests with THTF data. Compare the latest TRAC-M calculations for both groups of the tests to the calculations using TRAC-B and RELAP5. Prepare a letter report in both text and electronic format. Prepare the input decks and the test data assessed in electronic format.

Estimated Level of Effort: 1.5 staff-months
Estimated Completion Date: September 30, 2002

Task 15. Recalculate FRIGG Subcooled Tests

This task is an extension of Task 3. Use the latest TRAC-M to calculate two groups of FRIGG tests: (1) Tests 36 313-016, 36 313-020, 36 313-113, 36 313-114,36 313-120, 36 313-125, 36 313-148, and (2) Tests 413-113, 413-116, 413-120, 413-125, 413-147, 413-148, and 613-118. (The tests in the first group were calculated in Task 3 using an earlier version of TRAC-M.) Compare the calculations for the second group of the tests with FRIGG data. Compare the latest TRAC-M calculations for both groups of the tests to the calculations using TRAC-B and RELAP5. Prepare a letter report in both text and electronic format. Prepare the input decks and the test data assessed in electronic format.

Estimated Level of Effort: 2 staff-months
Estimated Completion Date: September 30, 2002

MEETINGS AND TRAVEL

The contractor is expected to make two one-day trips to the NRC office in Rockville, Maryland. In addition, the contractor is allowed to attend a national technical conference for a person up to three days. However, any travel must be approved in advance by the NRC Technical Monitor.