

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE OF PAGES 1 6
2. AMENDMENT/MODIFICATION NO. 1		3. EFFECTIVE DATE 2-23-87	4. REQUISITION/PURCHASE REQ. NO. RES-86-104		5. PROJECT NO. (If applicable)
6. ISSUED BY US Nuclear Regulatory Commission Division of Contracts - AR-2223 Washington, DC 20555		CODE	7. ADMINISTERED BY (If other than Item 6)		CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) NUS Corporation 910 Clcpper Road Gaithersburg, MD 20878-1399		(W)	9A. AMENDMENT OF SOLICITATION NO.
			9B. DATED (SEE ITEM 11)
		X	10A. MODIFICATION OF CONTRACT/ORDER NO. NRC-04-86-104
			10B. DATED (SEE ITEM 13) 4-1-86
CODE	FACILITY CODE		

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☐ is not extended.

Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

60-19-01 FIN: D1612 Obligate: \$50,000.00

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(W)	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
X	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Clause 52.243-2, Changes--Cost Reimbursement--Alternate 1 (APR 1984) and mutual agreement of the parties.
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 5 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

This modification is issued to expand the Scope of Work by adding Tasks 6 and 7; extend the period of performance for one additional year; increase the contract ceiling amount; and provide incremental funding. The contract is therefore modified as follows:

(See next page)

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Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) See Signature Page		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) See Signature Page	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA BY (Signature of Contracting Office)	16C. DATE SIGNED

1. Under Section B - Supplies or Services and Prices/Costs, Paragraph B.1, Brief Description of Work, refer to the second sentence and change it to read:

"The primary objective of this 24-month . . ."

2. Paragraph B.2 is modified to read:

Total Estimated Cost	\$195,925.00
Fixed Fee.....	\$ [REDACTED]
Total Estimated Cost Plus Fixed Fee.....	\$ [REDACTED]

3. Under Section C - Description/Specification/Work Statement, Paragraph C.1.2, Contract Objectives, the first sentence is modified to read:

"The primary objective of this 24-month. . ."

4. Under Paragraph C.1.3, Scope of Work, add the following Tasks 6 and 7:

Task 6 - Analysis Refinements Requested by CEC

The purpose of this task is to perform Phase b of study case 1 to allow better comparisons with respect to the specific issues of quantification assumptions, models and data to reduce divergence in the quantitative results. This task consists of applying three methods to two specific human actions. The methods selected are THERP, SLIM-MAUD, and MAPPS. To use these methods in the SHARP framework, the contractor shall perform a mini task analysis, an NPE data analysis, and an importance comparison. These results shall be provided to the benchmark group in a 12-page report to CEC.

This task shall be completed in mid-April.

Perform Phase b of study case 2 to be defined following the June 1987 CEC meeting. The requirements are expected to be similar to Phase 1b.

The contractor shall attend two additional CEC meetings as planned. A June 87 meeting will be to discuss the final results of case 1, including the MAPPS usage, and initial analysis of case study 2. A final meeting around the first quarter of 1987 will be used to discuss the case 2b results and integration of the overall benchmark results from the teams.

This task shall be completed by March 31, 1988. This task shall involve five 7-day trips to Ispra, Italy.

Task 7 - MAPPS Support

The purpose of this task is to support the comparative evaluation of the MAPPS computer code (NUREG/CR 3626 and NUREG/CR 3634) by the CEC and US analysis teams. The results will test the completeness of instructions for the MAPPS input data preparation, and assess the ability of the program to support a variety of forecasting requests.

This task shall begin in the last week in February 1987 and continue until completion of the MAPSS use during the project.

This new task consists of four subtasks, as follows:

1. Set up and maintain code for use in the CEC project.
2. Assist in the training of Benchmark personnel in the application of the program and interpretation of the input forces.
3. QA of the analysis formats from the Benchmark teams and running the code for each team's input.
4. MAPPS package support in testing and analysis on specific problems for sensitivity studies.

This task shall be completed by March 31, 1988. This task shall involve one 3-day trip to San Diego, CA by the contractor, and two 12-day trips to Ispra, Italy; one 1-day trip to Rockville, MD; and one 4-day trip to San Diego, CA by the subcontractor.

5. Under Paragraph C.1.3, the first sentence under Task 5 - Prepare Final Report is modified to read:

"The purpose of this task is to prepare a final report of Tasks 1-4, 6 and 7, results . . ."

6. Under Paragraph C.2, Meetings and Travel, add the following:

C.2.3 During Task 6, 5 trips shall be scheduled to Ispra, Italy, not to exceed seven days.

C.2.4 During Task 7, 2 trips shall be scheduled to Ispra, Italy, not to exceed twelve days each; 1 trip to Rockville, MD, not to exceed one day; 1 trip to San Diego, CA, not to exceed three days; and 1 trip to San Diego, CA, not to exceed four days.

7. Under Section F - Deliveries and Performance, add the following under Paragraph F.1.2, Technical Information and Reports:

(d) Project Task 6 report documenting results of mini task analysis, NPE data analysis, and importance comparison.

8. Paragraph F.3, Duration of Contract Period, is modified to read as follows:

This contract shall become effective on April 1, 1986, and shall continue for a two-year period of performance, until March 31, 1988.

9. Under Section G - Contract Administration Data, Paragraph G.1, Consideration - Estimated Cost, Fixed Fee and Obligation, is modified to read as follows:

"1. It is estimated that the total cost for full performance of this contract will be \$212,693.00, of which the sum of \$195,925.00 represents the estimated reimbursable costs and of which \$[REDACTED] represents the fixed fee.

The total estimated cost of tasks 1-6 is \$164,740.00, of which the sum of \$151,524.00 represents the estimated reimbursable costs and of which \$[REDACTED] represents the fixed fee. The total estimated cost shall be jointly and equally funded by the US Nuclear Regulatory Commission (NRC) and Electric Power Research Institute (EPRI) as follows:

NRC - \$82,370.00 ([REDACTED])
EPRI - \$82,370.00 ([REDACTED])

The total estimated cost of task 7 is \$47,953.00, of which the sum of \$44,401.00 represents the estimated reimbursable costs and of which \$[REDACTED] represents the fixed fee. This task shall be funded entirely by the US Nuclear Regulatory Commission.

10. Paragraph G.1.2 is revised to read as follows:

Total funds currently available for payment and obligated to this contract are \$138,119.00, of which \$127,888.00 represents the estimated reimbursable costs and of which \$ [REDACTED] represents the fixed fee. The obligated funds are provided as follows:

NRC - \$100,000.00
EPRI - \$ 38,119.00

11. Paragraph G.1.3 is revised to read as follows:

The remaining funds of \$74,574.00 will be obligated by the NRC and EPRI upon availability of funds, by contract modification, as follows:

NRC - \$30,323.00
EPRI - \$44,251.00

12. Under Section G.2, Overhead/General and Administrative Rates, add the following under G.2.B.:

Pending the establishment of final general and administrative rates which shall be negotiated based on audit of actual costs, the contractor shall be reimbursed for allowable indirect costs under Task 6 and 7 at the provisional rate of [REDACTED] of total direct costs and overhead.

Issuance of this modification results in the following:

The total amount of the contract is increased by \$93,419, from \$119,274 to \$212,693.

The total estimated cost is increased by \$86,499, from \$109,426 to \$195,925.

The total fee is increased by \$6,920, from \$9,848 to \$16,768.

The amount obligated is increased by \$73,119 (\$50,000/NRC and \$23,119/EPRI), from \$65,000 to \$138,119.

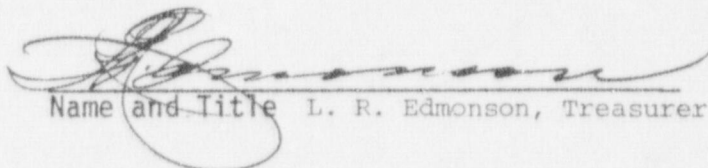
All other terms and conditions remain the same.

SIGNATURE PAGE

Contractor is required to sign this document and return five copies to the issuing office.

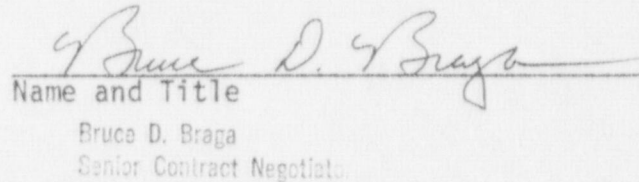
NUS CORPORATION

4/14/87
(Date)


Name and Title L. R. Edmonson, Treasurer

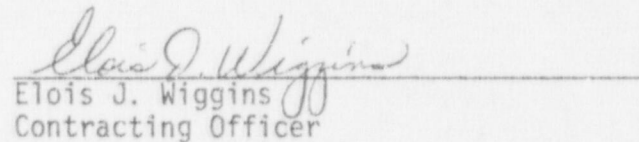
ELECTRIC POWER RESEARCH INSTITUTE, INC.

5/28/87
(Date)


Name and Title
Bruce D. Braga
Senior Contract Negotiator

US NUCLEAR REGULATORY COMMISSION

6/24/87
(Date)


Elois J. Wiggins
Contracting Officer