



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

MAR 21 2000

Purdue Research Foundation
ATTN: Edie Doland
1063 Hovde Hall, Purdue University
West Lafayette, IN 47907-1063

Dear Ms. Doland:

SUBJECT: TASK ORDER NO. 6 MODIFICATION NO. 7 ENTITLED "SNAP RUNTIME AND OUTPUT VISUALIZATION DEVELOPMENT" UNDER CONTRACT NO. NRC-04-97-046

In accordance with Section G.4, Task Order Procedures, of the subject contract, this letter definitizes Task Order No. 6 Modification No. 7. This effort shall be performed in accordance with the enclosed Statement of Work which has been revised since the RFP version to reflect changes incorporated from the contractor technical proposal dated March 15, 2000. The period of performance for Task Order No. 6 shall run from January 9, 1998 through November 30, 2000. The total estimated cost for full performance of this task order is increased by \$199,000 from \$381,918 to \$580,918. Funds allotted to this task order are hereby increased by \$191,000 from \$381,918 to \$572,918. The Contractor shall not incur costs for this task order which exceed the cumulative obligated amount of \$572,918. The issuance of this task order does not amend any terms or conditions of the subject contract.

Accounting data for Task Order No. 6 Modification No. 7 is as follows:

B&R No.: 06060401710
BOC Code: 252A
RES ID: RES-C00-387 F6191 \$ 1,137
RES ID RES-C00-388 F6277 \$114,960
RES ID RES-C00-389 F6278 \$ 55,869
RES ID RES-C00-390 F6279 \$ 19,034
Appropriation No.: 31X0200
Obligated Amount This Action: \$191,000
FY 98 Obligations: \$163,493 FY 99 Obligations: \$111,436
FY 99 Foreign Funds:\$52,000 FY 00 NRC Obligations: \$54,989
FY 00 Foreign Funds:\$191,000 Cumulative Obligations: \$572,918

Template = ADM001

ADM02

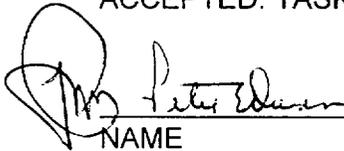
Please indicate your acceptance of this task order by having an official, authorized to bind your organization, execute three copies of this document in the space provided and return two copies to the Contract Specialist. You should retain the third copy for your records.

Sincerely,



Stephen M. Pool, Contracting Officer
Division of Contracts and Property
Management

ACCEPTED: TASK ORDER NO. 6 MOD 7



NAME

MAR 31 2000
DATE

Peter E. Dunn
Assistant Vice President for Research

TITLE

Final SOW for Modification No. 7 to Task Order #6, "SNAP Runtime and Output Visualization Development," under Contract No. NRC-04-97-046 and Job Code W6749, "Thermal-Hydraulic Research"

Additional Work Requirements

The following new Tasks 13 through 19 are added to the SOW.

Task 13. Runtime/Post-processing 2D Visualization

Continue development of the Visual Engineering Data Analyzer (VEDA). Revise the model serialization coding in accordance with the new swing serialization API. Update color to data channel mapping to support TRAC-M components. Create visual components to represent control system elements.

Estimated Level of Effort: 2 staff-months
Estimated Completion Date: July 31, 2000

Task 14. Runtime/Post-processing 3D Visualization

Develop a 3D-visualization software component capable of displaying calculation results against a 3D representation of individual T/H components using a combination of color and surface texture mapping.

Estimated Level of Effort: 4 staff-months
Estimated Completion Date: November 30, 2000

Task 15. SNAP Database

Revise the SNAP database structure as required to support additional functionality provided by the SNAP front-end, runtime, and post-processor. Extend the SNAP database CORBA server to support replay of archived calculations.

Estimated Level of Effort: 1 staff-month
Estimated Completion Date: November 30, 2000

Task 16. ASCII Output Viewer

Extend the Execution Monitor and the SNAP database CORBA servers to support retrieval and display of ASCII code output. Provide a syntax-colored display component for RELAP5 and TRAC-M output files with search capability.

Estimated Level of Effort: 1staff-month
Estimated Completion Date: September 30, 2000

Task 17. Xmgr5

Migrate NRC extensions to new versions, as they become available. Correct errors discovered in Xmgr5. The Xmgr5 User's Manual should be updated as appropriate.

Estimated Level of Effort: 0.5 staff-month
Estimated Completion Date: November 30, 2000

Task 18. User's Manual

Develop and maintain an electronic user's manual in HTML format. Software components that have user interfaces will be able to hyperlink into this manual to provide a help facility.

Estimated Level of Effort: 3 staff-months
Estimated Completion Date: September 30, 2000

Task 19. Testing, Error Corrections, and Distribution

Testing of the runtime/output visualization code will be performed on a suite of RELAP5 and TRAC-M calculations and experimental data sources. Errors will be corrected as necessary. Create a multi-platform, SNAP installation package to support code distributions. The installation package will support installation options, desktop icons, environmental variable, and registry updates. It will provide the ability to uninstall the software. It is anticipated that one license for InstallShield for Java will be needed to support this task.

Estimated Level of Effort: 5 staff-months
Estimated Completion Date: November 30, 2000

Meetings and Travel

The contractor is expected to take one-person trip to the following three meetings:

- April 10-13, 2000, Barcelona, Spain "OECD / CSNI WORKSHOP ON ADVANCED THERMAL-HYDRAULIC AND NEUTRONIC CODES: CURRENT AND FUTURE APPLICATIONS"
- November 13-15, 2000, Washington, DC, "International Meeting on "Best-Estimate" Methods in Nuclear Installation Safety Analysis"
- October 2000, Rockville, Maryland, "CAMP Meeting"