



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

JAN 1 0 2001

*News*  
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. 9 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. 9. This effort shall be performed in accordance with the enclosed Statement of Work and the contractor technical proposal dated November 20, 2000. This letter confirms written authorization given to Mr Thomas Wright, of Purdue Research Foundation, by Mr Donald A. King, NRC Contracting Officer, on November 30, 2000, to continue performance of task order number 6. This letter also confirms verbal authorization given by Mr. King to Mr. Wright, on December 19, 2000, that established a temporary spending limit of \$50,000 pending completion of the task order modification.

The period of performance for Task Order No. 6 shall run from January 9, 1998 through November 30, 2001. The total estimated cost for full performance of this task order is increased by \$250,000 from \$580,918 to \$830,918. Funds allotted to this task order are hereby increased by \$250,000 from \$580,918 to \$830,918. The Contractor shall not incur costs for this task order which exceed the cumulative obligated amount of \$830,918. 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. 9 is as follows:

B&R No.: 16015110135  
BOC Code: 252A  
RES ID: RES-C01-320 W6749 \$250,000  
Appropriation No.: 31X0200.160  
Obligated Amount This Action: \$250,000

Summary of obligations:

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 FY 01 Funds: \$258,000

Cumulative Obligations: \$830,918

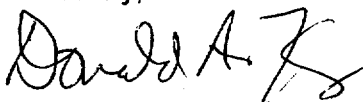
Template ADM-001

ADM 02

NRC-04-97-046 TO#6 Mod 9  
Page 2 of 2

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,



Donald A. King, Contracting Officer  
Division of Contracts and Property  
Management

ACCEPTED: TASK ORDER NO. 6 MOD 9



NAME

JAN 19 2001

DATE

**Peter E. Dunn**  
**Assistant Vice President for Research**

TITLE

## Technical Approach

This is a continuation of Task Order #6, SNAP Runtime and Output Visualization Development, currently being performed by Applied Programming Technology, Inc. The following activities have been identified as necessary to support the continued development of this software:

### **Task 14. Runtime/Post-processing 2D/3D Visualization**

Continue development runtime and post-processing portions of SNAP. Create additional JavaBean visual components based on feedback from the SNAP user community. Develop a visual component to represent the 3D vessel. Extend the ModelEditor application to supply 3D component geometrical data to VEDA. Improve the integration of the ModelEditor application into SNAP. Modify runtime as needed to support parallel TRAC-M calculations.

Level of Effort: 4.0 Staff-month (Software Engineer)  
4.0 Staff-month (Programmer)

Completion Date: October 31, 2001

### **Task 15. SNAP Database**

Revise the SNAP database structure, database server, database access classes, and local-save-file libraries as required to support additional functionality provided by the SNAP front-end, runtime, and post-processor.

Level of Effort: 1.0 Staff-month (Software Engineer)

Completion Date: November 30, 2001

### **Task 17. Xmgr5**

Modify Xmgr5 to handle new file output formats produced by thermal-hydraulic codes. Correct errors discovered in Xmgr5. Update the Xmgr5 user's manual as appropriate.

Level of Effort: 0.5 Staff-month (Software Engineer)

Completion Date: November 30, 2001

## Technical Approach (cont.)

### **Task 18. User's Manual**

Extend and maintain the 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. APT may contract the services of a Technical Writer to support this task. Prepare a SNAP user's manual in both text and electronic format.

Level of Effort: 1.5 Staff-month (Software Engineer)  
1.5 Staff-month (Programmer)

Completion Date: November 30, 2001

### **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 discovered during testing will be corrected as necessary. Evaluate and correct errors reported by the SNAP user community. Create a multi-platform, SNAP installation package to support code distribution.

Level of Effort: 2.5 Staff-month (Software Engineer)  
3.0 Staff-month (Programmer)

Completion Date: November 30, 2001

### **Task 20. Provide Technical Support**

This task provides technical support to NRC. The work includes making presentations, attending meetings, reviewing technical reports, and providing technical consultation and support to ISL and LANL as requested by the NRC Technical Monitor.

Level of Effort: 1.0 Staff-month (Software Engineer)

Completion Date: November 30, 2001

**Meetings and Travel:**

The contractor is expected to attend a meeting at or near the NRC office in Rockville, Maryland (including a CAMP meeting). For planning purpose, each meeting will involve up to two people and last for two or three days. In addition, the contractor may also attend a technical conference in the U.S. However, any travel must be approved in advance by the NRC Technical Monitor.