
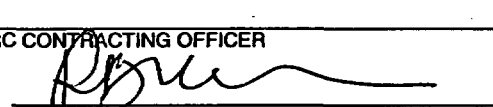


**U.S. NUCLEAR REGULATORY COMMISSION  
NOTICE OF GRANT/ASSISTANCE AWARD**

1. GRANT/AGREEMENT NO.  NRC-04-98-056		2. MODIFICATION NO.  22		3. PERIOD OF PERFORMANCE FROM: 8/24/98 TO: 08/31/2004		4. AUTHORITY Pursuant to Section 31a and 141b of the Atomic Energy Act of 1954, as amended	
5. TYPE OF AWARD  <input type="checkbox"/> GRANT <input checked="" type="checkbox"/> COOPERATIVE AGREEMENT		6. ORGANIZATION TYPE		7. RECIPIENT NAME AND ADDRESS University of Maryland Department of Materials & Nuclear Engineering, Building 090 College Park, MD 20742			
8. PROJECT TITLE: Probabilistic Assessment and Applications							
9. PROJECT WILL BE CONDUCTED PER GOVERNMENT'S/RECIPIENT'S PROPOSAL(S) DATED		10. TECHNICAL REPORTS ARE REQUIRED <input checked="" type="checkbox"/> PROGRESS AND FINAL <input type="checkbox"/> FINAL ONLY <input type="checkbox"/> OTHER (Conference Proceedings)		11. PRINCIPAL INVESTIGATOR(S) NAME AND ADDRESS University of Maryland Materials & Nuclear Engineering Dept. ATTN: Prof. Mohammad Modarres 2100 Marie Mount Hall College Park, MD 20742 College Pa			
AND APPENDIX A-PROJECT GRANT PROVISIONS		12. NRC PROGRAM OFFICE (NAME ADDRESS) U.S. Nuclear Regulatory Commission Office of Nuclear Regulatory Research ATTN: Roy Woods Washington, DC 20555 301-415-6622		13. ACCOUNTING APPROPRIATION DATA APPN. NO: 31X0200.360 BR NO: 36015110203 JOB CODE: K6007 BOC NO: 4110 OFFICE ID NO: RES-C03-081		14. METHOD OF PAYMENT <input type="checkbox"/> ADVANCE BY TREASURY CHECK <input type="checkbox"/> REIMBURSEMENT BY TREASURY CHECK <input type="checkbox"/> LETTER OF CREDIT <input checked="" type="checkbox"/> OTHER (SPECIFY) ACH (See Attach. 30 in Appendix A - "Electronic Payment")	
15. NRC OBLIGATION FUNDS  THIS ACTION <u>\$85,014.00</u>  PREVIOUS OBLIGATION <u>\$1,802,740.00</u>  TOTAL <u>\$1,887,740.00</u>				16. TOTAL FUNDING AGREEMENT  NRC <u>\$1,887,740.00</u> This action provides funds for Fiscal Year 03 in the amount of <u>\$85,014.00</u>  RECIPIENT <u>0</u>  TOTAL <u>\$1,887,740.00</u>			
17. NRC ISSUING OFFICE (NAME AND ADDRESS)  U.S. Nuclear Regulatory Commission Division of Contracts Attn: T-7-I-2 Contract Management Center 2 Washington DC 20555							
18. RECIPIENT  (Signature) <u>Antoinette Lawson, Associate Director</u> (Date) <u>9/10/03</u> NAME (TYPED) <u>Research Administration &amp; Advancement</u> TITLE <u>University of Maryland, College Park, MD 20742</u> TELEPHONE NO. <u>Phone 301-405-6262/Fax 301-314-9569</u> <u>email praa@umd.edu</u>				19. NRC CONTRACTING OFFICER  (Signature) <u>Mary H. Mace</u> (Date) <u>9/3/03</u> NAME (TYPED) <u>Contracting Officer</u> TITLE <u>301-415-7314</u> TELEPHONE NO. <u>301-415-7314</u>			
20. PAYMENT INFORMATION  Payment will be made within thirty (30) days after receipt of the billing unless the bill is improper or the recipient has failed to comply with the program objectives, award conditions, Federal reporting requirements or other conditions specified in OMB Circular A-110.  Payment will be made by: <span style="float: right;">Vouchers should be submitted in an original and three (3) copies on form 270 to:</span>  U.S. Nuclear Regulatory Commission Office of the Chief Financial Officer Attn: GOV/COM Acctng. Section T-9H4 Washington, DC 20555							
21. Attached is a copy of the "NRC General Provisions for Grants and Cooperative Agreements Awarded to Institutions of Higher Education and Other Nonprofit Organizations". Acceptance of these terms and conditions is acknowledged when Federal funds are used on this project.							
22. ORDER OF PRECEDENCE In the event of a conflict between the recipient's proposal and this award, the terms of the Award shall prevail.							
23. By this award, the Recipient certifies that payment of any audit-related debt will not reduce the level of performance of any Federal Program							

**TEMPLATE - ADM001**

**ADM002**

**U.S. NUCLEAR REGULATORY COMMISSION  
COOPERATIVE AGREEMENT NO. NRC-04-98-056  
MODIFICATION NO. 22**

The purpose of this modification is to: (1) modify the statement of work for Task 4 in accordance with the contractor's proposal dated July 2, 2003, which is hereby incorporated by reference; (2) increase the ceiling and obligated amounts by \$85,014.00; and (3) extend the period of performance under Task 4 by one month to December 31, 2003. Accordingly, the cooperative agreement is modified as follows:

1. The Statement of Work for Task 4 entitled "Thermal Hydraulics Uncertainty Evaluation and Propagation," is modified to extend the task to include Calvert Cliffs, as a fourth plant in the application. As a result, the ceiling and obligated amounts are hereby increased by \$85,014.00 from \$1,802,740.00 to \$1,887,754.00.
2. The period of performance under Task 4 is extended from December 31, 2000 through December 31, 2003.

All other terms and conditions of this cooperative agreement remain unchanged.

## NOTICE OF GRANT/ASSISTANCE AWARD

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12. NRC PROGRAM OFFICE (NAME ADDRESS) U.S. Nuclear Regulatory Commission Office of Nuclear Regulatory Research ATTN: Roy Woods Washington, DC 20555 301-415-6622		13. ACCOUNTING APPROPRIATION DATA APPN. NO: 31X0200.360 BB NO: 36015110203 JOB CODE: K6007 BOC NO: 4110 OFFICE ID NO: RES-C03-081		14. METHOD OF PAYMENT <input type="checkbox"/> ADVANCE BY TREASURY CHECK <input type="checkbox"/> REIMBURSEMENT BY TREASURY CHECK <input type="checkbox"/> LETTER OF CREDIT <input checked="" type="checkbox"/> OTHER (SPECIFY) ACH (See Attach. 30 in Appendix A - "Electronic Payment")			
15. NRC OBLIGATION FUNDS  THIS ACTION \$85,014.00  PREVIOUS OBLIGATION \$1,802,740.00 TOTAL \$1,887,754.00		16. TOTAL FUNDING AGREEMENT NRC \$1,887,754.00 RECIPIENT \$1,887,754.00 TOTAL \$1,887,754.00  This action provides funds for Fiscal Year 03 in the amount of \$85,014.00  Approved by "pena ink" changes R. Webb 9/8/03					
17. NRC ISSUING OFFICE (NAME AND ADDRESS) U.S. Nuclear Regulatory Commission Division of Contracts Attn: T-7-I-2 Contract Management Center 2 Washington DC 20555							
18. RECIPIENT  (Signature) _____ (Date) _____ NAME (TYPED) _____  TITLE _____  TELEPHONE NO. _____				19. NRC CONTRACTING OFFICER  (Signature) _____ (Date) _____ NAME (TYPED) Mary H. Mace  TITLE Contracting Officer  TELEPHONE NO. 301-415-7314			
20. PAYMENT INFORMATION  Payment will be made within thirty (30) days after receipt of the billing unless the bill is improper or the recipient has failed to comply with the program objectives, award conditions, Federal reporting requirements or other conditions specified in OMB Circular A-110.  Payment will be made by: _____ Vouchers should be submitted in an original and three (3) copies on form 270 to:  U.S. Nuclear Regulatory Commission Office of the Chief Financial Officer Attn: GOV/COM Acctng. Section T-9H4 Washington, DC 20555							
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ORDER OF PRECEDENCE In the event of a conflict between the recipient's proposal and this award, the terms of the Award shall prevail.							
By this award, the Recipient certifies that payment of any audit-related debt will not reduce the level of performance of any Federal Program							