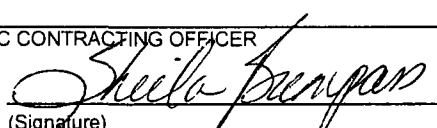


**U.S. NUCLEAR REGULATORY COMMISSION
NOTICE OF GRANT/ASSISTANCE AWARD**

1. GRANT/AGREEMENT NO. NRC-04-10-165	2. MODIFICATION NO.	3. PERIOD OF PERFORMANCE FROM: 09/30/2010 TO: 09/30/2013	4. AUTHORITY Pursuant to Section 31b and 141b of the Atomic Energy Act of 1954, as amended
5. TYPE OF AWARD <input checked="" type="checkbox"/> GRANT <input type="checkbox"/> COOPERATIVE AGREEMENT	6. ORGANIZATION TYPE Public State Controlled Institution of Higher Education DUNS: 003403953 NAICS: 611310	7. RECIPIENT NAME, ADDRESS, and EMAIL ADDRESS PENNSYLVANIA STATE UNIVERSITY, THE PENN STATE 408 OLD MAIN UNIVERSITY PARK PA 168021505	
8. PROJECT TITLE: Experiments for Development of TRACE with Interfacial Area Transport Models			
9. PROJECT WILL BE CONDUCTED PER GOVERNMENT'S/RECIPIENT'S PROPOSAL(S) DATED AND APPENDIX A-PROJECT GRANT PROVISIONS	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, ADDRESS and EMAIL ADDRESS Dr. Seungjin Kim Assistant Professor, Pennsylvania State Univ. University Park, PA 16802; E-mail: Sxk86@psu.edu	
12. NRC PROGRAM OFFICE (NAME and ADDRESS) U.S. Nuclear Regulatory Commission Office of Nuclear Regulatory Research ATTN: Robin Barnes Mail Stop CSB C6-D20 Washington, DC 20555 301-251-7401 Kirk Tien, TA	13. ACCOUNTING and APPROPRIATION DATA APPN. NO: 31X0200.160 B&R NO: 2011-60-11-6-174 JOB CODE: G6005 BOC NO: 4110 OFFICE ID NO: RES-11-208 FAMIS: GR0020	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) Electronic ASAP.gov (See Remarks in Item #20 "Payment Information")	
15. NRC OBLIGATION FUNDS THIS ACTION \$76,851.00 PREVIOUS OBLIGATION \$72,744.00 TOTAL \$149,595.00		16. TOTAL FUNDING AGREEMENT NRC \$224,988.00 RECIPIENT _____ TOTAL \$224,988.00 This action provides funds for Fiscal Year 2011 in the amount of \$76,851.00	
17. NRC ISSUING OFFICE (NAME, ADDRESS and EMAIL ADDRESS) U.S. Nuclear Regulatory Commission Div. of Contracts Attn: M'Lita Carr Mail Stop: TWB-01-B10M Washington, DC 20555 MLita.Carr@nrc.gov			
18. Signature Not Required		19. NRC CONTRACTING OFFICER <div style="text-align: center;"> (Signature) _____ (Date) <u>7/7/11</u> NAME (TYPED) <u>Sheila Bumpass</u> TITLE <u>Contracting Officer</u> TELEPHONE NO. <u>301-492-3484</u></div>	
20. PAYMENT INFORMATION Payment will be made through the Automated Standard Application for Payment (ASAP.gov) unless the recipient has failed to comply with the program objectives, award conditions, Federal reporting requirements or other conditions specified in 2 CFR 215 (OMB Circular A110).			
21. Attached is a copy of the "NRC General Provisions for Grants and Cooperative Agreements Awarded to Non-Government Recipients. 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

SUNSI REVIEW COMPLETE

ADM002

DESCRIPTION OF MODIFICATION:

The purpose of this modification M001 is:

1. Provide incremental funding in the amount of \$76,851.00;
2. Change the NRC Project Manager;
3. Add Financial and Performance reporting requirements.

As a result of this modification:

1. The obligated amount of the grant has increased by \$76,851.00 from \$72,744.00 to \$149,595;
2. Robin Barnes has replaced Kirk Tien as the NRC Project Manager and Mr. Tien is hereby designated as the Technical Analyst;
3. In section b. entitled "Federal Financial Reports" under Monitoring and Reporting delete and replace with the following:

"b. Federal Financial Reports

Effective October 1, 2009, NRC transitioned from the SF-269, SF-269A, SF-272, and SF- 272A to the Federal Financial Report (SF-425) as required by OMB:

Federal Register Notice: http://www.whitehouse.gov/omb/fedreg/2008/081308_ffr.pdf

Federal Financial Report Form (SF-425): http://www.whitehouse.gov/omb/grants_forms/

The Recipient shall submit a Federal Financial Report (SF-425) on a quarterly basis, for the periods ending 3/31, 6/30, 9/30 and 12/31. Reports are due within 30 calendar days following the end of each reporting period. The reports must be emailed to Grants_FFR@nrc.gov. "

4. In section III. Programmatic Requirements section entitled "Performance (Technical) Reports" add the following:

"c. The required performance (technical) reports must be emailed to Grants_PPR@nrc.gov."

Base Period: September 30, 2010 – September 30, 2013 (unchanged)

Total Contract Amount: \$224,988.00 (unchanged)

Total Obligated Amount: \$149,595.00 (changed)

All terms and conditions remain the same.