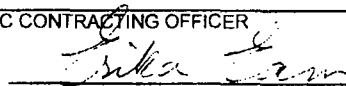


**U.S. NUCLEAR REGULATORY COMMISSION
NOTICE OF GRANT/ASSISTANCE AWARD**

| | | | |
|--|---|--|--|
| 1. GRANT/AGREEMENT NO. NRC-04-09-167 | 2. MODIFICATION NO. M005 | 3. PERIOD OF PERFORMANCE FROM: 10/01/2009 TO: 07/31/2013 | 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 Non-Profit Organization NAICS: 541690 DUNS: 041964057 | 7. RECIPIENT NAME, ADDRESS, and EMAIL ADDRESS NATIONAL ACADEMY OF SCIENCES NATIONAL RESEARCH COUNCIL DOUGLAS DENNING 2101 CONSTITUTION AVE NW WASHINGTON DC 204180006 BUSINESS EMAIL: <u>D DENNING@NAS.EDU</u> | |
| 8. PROJECT TITLE: Subsurface Characterization, Modeling, Monitoring, and Remediation of Fractured Rocks | | | |
| 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 Ms. Samantha Magsino Board of Earth Sciences and Resources National Research Council 500 Fifth Street, N.W. Washington DC 20001 Email: <u>smagsino@nas.edu</u> | |
| 12. NRC PROGRAM OFFICE (NAME and ADDRESS) U.S. Nuclear Regulatory Commission Office of Research Attn: Robin Barnes <u>Robin.Barnes1@nrc.gov</u> Mail Stop: C6D20 Rockville MD 20850 301-251-7401 TA: <u>Jacob Philip</u> <u>Jacob.philip@nrc.gov</u> | 13. ACCOUNTING and APPROPRIATION DATA APPN. NO: 31X0200 B&R NO: 2013-60-17-6-161 JOB CODE: G6867 BOC NO: 4110 OFFICE ID NO: RPPA: RES-13-050 | 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) <u>Electronic ASAP.gov</u> (See Remarks in Item #20 "Payment Information") | |
| 15. NRC OBLIGATION FUNDS THIS ACTION <u>\$0.00</u> PREVIOUS OBLIGATION <u>\$200,000.00</u> TOTAL <u>\$200,000.00</u> | | 16. TOTAL FUNDING AGREEMENT NRC <u>\$200,000.00</u> RECIPIENT <u>\$0.00</u> TOTAL <u>\$200,000.00</u> This action provides funds for Fiscal Year 13 in the amount of \$0.00 | |
| 17. NRC ISSUING OFFICE (NAME, ADDRESS and EMAIL ADDRESS) U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Erika Eam Mail Stop: TWB/ 1 A14 Rockville MD, 20852 <u>Erika.Eam@nrc.gov</u> | | | |
| 18. Signature Not Required | | 19. NRC CONTRACTING OFFICER <div style="text-align: center;">  (Signature) _____ (Date) <u>12/13/2012</u> </div> NAME (TYPED) <u>Erika Eam</u> TITLE <u>Grant Officer</u> TELEPHONE NO. <u>(301) 492-3464</u> | |
| 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

SUNSHINE REPORT COMPLETE

ADM002

DESCRIPTION OF MODIFICATION:

The purpose of this modification M002 is:

1. Update FFR reporting information
2. Update PPR reporting information.

As a result of this modification:

1. Under "THE NUCLEAR REGULATORY COMMISSION'S STANDARD TERMS AND CONDITIONS", the section entitled "Monitoring and Reporting § 215.51" – Federal Financial Reports is deleted in its entirety and replaced with the following:

"Federal Financial Reports

The Grantee shall submit a "Federal Financial Report" (SF-425) on a quarterly basis for the periods ending March 31, June 30, September 30, and December 31, or any portion thereof, unless otherwise specified in a special award condition. Reports are due no later than 30 days following the end of each reporting period. A final SF-425 is due within 90 days after expiration of the award. The report should be submitted electronically to the following:

1. Grants_FFR@NRC.gov (NOTE: There is an underscore between Grants and FFR);
 2. RESGrants.Resource@NRC.gov
 3. Technical Analyst – Jacob Philip Jacob.Philip@nrc.gov
 4. Grant Officer"
2. Under "THE NUCLEAR REGULATORY COMMISSION'S STANDARD TERMS AND CONDITIONS", the section entitled "III. Programmatic Requirements" section Performance (Technical) Reports is deleted in its entirety and replaced with the following:

"Performance (Technical) Reports

a. The Grantee shall submit performance (technical) reports electronically to the NRC Project Officer and Grants Officer on a quarterly for the periods ending March 31, June 30, September 30, and December 31, or any portion thereof, unless otherwise specified in a special award condition. Reports are due no later than 30 days following the end of each reporting period. The report should be submitted electronically to the following:

1. Grants_PPR@NRC.gov (NOTE: There is an underscore between Grants and PPR);
2. RESGrants.Resource@NRC.gov ;
3. Technical Analyst - Jacob Philip Jacob.Philip@nrc.gov
4. Grant Officer

b. Unless otherwise specified in the award provisions, performance (technical) reports shall contain brief information as prescribed in the applicable uniform administrative requirements 2 CFR §215.51 which are incorporated in the award.

c. The Office of Regulatory Research requires the submission of progress reports on the SF-RPPR on a quarterly basis for the periods ending March 31, June 30, September 30, and December 31, or any portion thereof, unless otherwise specified in a special award condition. Reports are due no later than 30 days following the end of each reporting period."

All Other Terms and Conditions Remain the Same