

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

1. GRANT/AGREEMENT NO. NRC-HQ-11-G-38-0008	2. MODIFICATION NO.	3. PERIOD OF PERFORMANCE FROM: 8/4/2011 TO: 8/3/2014	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 ED DUNS: 804883767 NAICS: 611310	7. RECIPIENT NAME, ADDRESS, and EMAIL ADDRESS  The Curators of the University of Missouri – Missouri S & T 300 W. 12 <sup>th</sup> Street 202 Centennial Hall Rolla, MO 65409	
8. PROJECT TITLE: <b>Missouri A&amp;T Nuclear Engineering Faculty Development Program</b>			
9. PROJECT WILL BE CONDUCTED PER GOVERNMENT'S/RECIPIENT'S PROPOSAL(S) DATED  See Program Description 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 University of Missouri S & T Attn: Prof. Arvind Kumar NE Program Chair Email: <u>Kumar@MST.EDU</u> 573-341-4747	
12. NRC PROGRAM OFFICE (NAME and ADDRESS) NRC Attn: Nancy Hebron-Isreal Office of Human Resources MS: GW5E03 (301) 492-2231 11545 Rockville Pike Rockville, Maryland 20852	13. ACCOUNTING and APPROPRIATION DATA APPN. NO: 31X0200 B&R NO: 2011-84-51-K-164 JOB CODE: T8460 BOC NO: 4110 OFFICE ID NO: <u>REPA: HR-11-144</u> <u>FAIMIS 680077</u>	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 <u>\$412,230.00</u>  PREVIOUS OBLIGATION _____  TOTAL <u>\$412,230.00</u>		16. TOTAL FUNDING AGREEMENT  NRC <u>\$412,230.00</u> This action provides funds for Fiscal Year in the amount of See Page Two  RECIPIENT <u>\$151,038.00</u>  TOTAL <u>\$563,268.00</u>	
17. NRC ISSUING OFFICE (NAME, ADDRESS and EMAIL ADDRESS)  U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Mark Lohrmann Email: <u>Mark.Lohrmann@NRC.GOV</u> Mail Stop: TWB-01-B10M Rockville MD 20852			
18.  Signature Not Required		19. NRC CONTRACTING OFFICER  <div style="text-align: right;"><u>Sheila Bumpass</u> <u>8/4/2011</u> (Signature) (Date) 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**

AUG 09 2011

**ADM002**

## ATTACHMENT A - SCHEDULE

### A.1 PURPOSE OF GRANT

The purpose of this Grant is to provide support to the "The University of Missouri S & T Nuclear Engineering Faculty Development Program" as described in Attachment B entitled "Program Description."

### A.2 PERIOD OF GRANT

1. The effective date of this Grant is August 4, 2011. The estimated completion date of this Grant is August 3, 2014.
2. Funds obligated hereunder are available for program expenditures for the estimated period: August 4, 2011– August 3, 2014.

### A. GENERAL

1. Total Estimated NRC Amount: \$412,230.00
2. Total Obligated Amount: \$412,230.00
3. Cost-Sharing Amount: \$151,038.00
4. Activity Title: Missouri S & T Nuclear Engineering Faculty Development Program
5. NRC Project Officer: Nancy Hebron-Isreal
6. DUNS No.: 8048833767

### B. SPECIFIC

- RFPA No.: HR-11-144  
FFS: N/A  
Job Code: T8460  
BOC: 4110  
B&R Number: 2011-84-51-K-164  
Appropriation #: 31X0200  
Amount Obligated: \$412,230.00

### A.3 BUDGET

Revisions to the budget shall be made in accordance with Revision of Grant Budget in accordance with

	Year 1	Year 2	Year 3
Salaries	\$68,016.00	\$65,826.00	\$63,059.00
Travel	\$ 7,000.00	\$ 7,000.00	\$ 8,000.00
Equipment	\$25,000.00	\$20,000.00	\$12,000.00
Supplies	\$ 4,698.00	\$ 4,853.00	\$ 6,024.00
Subtotal Direct Participant Cost	\$104,714.00	\$97,679.00	\$89,083.00
Indirect Cost	\$ 41,052.00	\$40,004.00	\$39,698.00
Cost Share	<u>\$ 50,891.00</u>	<u>\$ 50,080.00</u>	<u>\$50,067.00</u>
Yearly Total	<b>\$196,657.00</b>	<b>\$187,763.00</b>	<b>\$178,848.00</b>

#### A.4 AMOUNT OF AWARD AND PAYMENT PROCEDURES

1. The total estimated amount of this Award is \$412,230.000 for the three year period.
2. NRC hereby obligates the amount of \$412,230.00 for program expenditures during the period set forth above and in support of the Budget above. The Grantee will be given written notice by the Contracting Officer when additional funds will be added. NRC is not obligated to reimburse the Grantee for the expenditure of amounts in excess of the total obligated amount.
3. Payment shall be made to the Grantee in accordance with procedures set forth in the Automated Standard Application For Payments (ASAP) Procedures set forth below.

#### Attachment B – Program Description

##### PROGRAM DESCRIPTION

##### Missouri S&T Nuclear Engineering Faculty Development Program (2011-2014)

#### B. Project Description

The Missouri S&T Nuclear Engineering (NE) Program is experiencing high enrollments (see Fig. 1). The total enrollment for Fall 2010 was 173, including a graduate enrollment of 25. In order to address the adverse situation of very high student/faculty ratio, two new tenure-track assistant professor positions were approved by the S&T Chancellor, one each in Fall 2010 and Fall 2011, respectively. Currently, we have hired Dr. Ayodeji Alajo, first of the two faculty members. We are in the process of interviewing for the second faculty position to begin in Fall 2011. Two standing committees for research and teaching will mentor the two new junior faculty members to help them obtain tenure and promotion at the end of their six-year probationary periods. In addition, a five member Faculty Development Evaluation Committee will be set up to help evaluate, prepare and retain the two faculty members hired with the assistance of the NRC Faculty Development Grant.

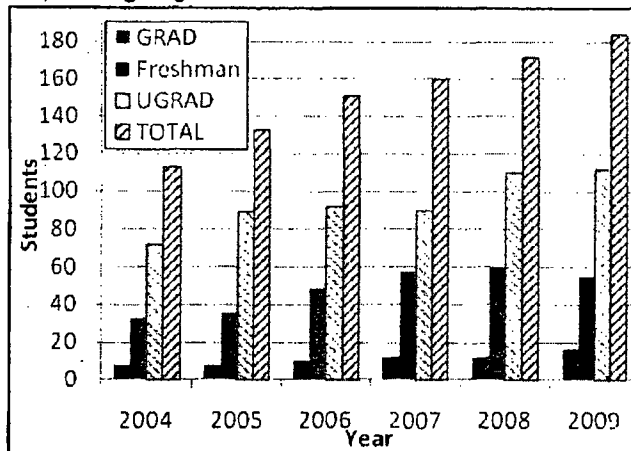


Fig. 1. Enrollment increase - Nuclear Engineering.

#### B. 1. Missouri S&T NE Faculty Development Program

The goal of the proposed Faculty Development Program (FDP) is to attract, prepare and retain the two tenure-track assistant professors in the Missouri S&T Nuclear Engineering (NE) Program. To this end, the FDP will allocate additional resources to the new faculty members for (a) complementing their startup packages, (b) supporting new curriculum development in radiochemistry/nuclear forensics and health physics, (c) developing laboratory facilities in support of their research, (d) supporting graduate and undergraduate students working in their research teams. The University will match the NRC funds (\$412,230 for 3 years) by cash contributions (\$151,038 for 3 years), and will also include mentoring and evaluation by both in-house senior faculty members with significant experience in Nuclear Engineering, and two outside experts in leadership roles in both academic (University of Maryland) as well as

research (ORNL) areas in nuclear engineering. The mentoring and evaluation committees will facilitate the research and teaching portfolios of the two new faculty members, helping them to obtain tenure at the end of their 6 year probationary periods, and ultimately to be retained by the NE Program at Missouri S&T.

FDP will facilitate in establishing strong research groups in radiochemistry and in health physics at S&T. The new faculty members will work with the current NE professors, Dr. Carlos Castano and Dr. Shoaib Usman, already engaged in the areas of radiochemistry and health Physics, respectively, in order to strengthen the current expertise in these two areas. Both Dr. Castano and Dr. Usman have received grants this year from NRC for curriculum development in radiochemistry and in health physics, respectively.

Dr. Castano received two grants this year, one from University of Missouri Research Board and another one for curriculum development from USNRC titled, "Creation of a Radiochemistry/Radiobiology Teaching Program in Nuclear Engineering at Missouri S&T." With the assistance of this USNRC curriculum development grant, Dr. Castano will be teaching a radiochemistry course in Spring 2011 to Seniors in nuclear engineering and other engineering majors. One of the two new tenure-track faculty members to be hired in Fall 2010 or Fall 2011 will develop and teach a lower level undergraduate course and a graduate level course in radiochemistry, and will perform research in radiochemistry/nuclear forensics. The new faculty member will work closely with Dr. Castano and strengthen the radiochemistry/nuclear forensics area of expertise at Missouri S&T.

The second tenure-track faculty member (to be hired in Fall 2011) will help in developing a sequence of health physics courses for both nuclear engineering majors and students from other engineering and science disciplines. Our undergraduate NE curriculum allows 12 credit hours of electives. Our graduate program also needs at least one graduate level health physics course. Currently, we teach only two upper level courses, one in health physics (NE 333) and a second in Radiation Protection Engineering (NE 335). Both NE 333 and NE 335 can be taken by senior year undergraduate students and graduate students. The new faculty member will develop a 200 level undergraduate course for juniors and a 400 level graduate course in health physics for nuclear engineering, other engineering majors and science majors. This faculty member will work closely with Dr. Shoaib Usman of our faculty to develop distance learning (On-line) versions of the health physics courses. Dr. Usman has considerable expertise in developing distance-learning courses in Radiation Measurements Laboratory. Furthermore, Dr. Usman has graduate degrees in both Health Physics and in Nuclear engineering. He is currently working with Prof. Laurence Miller of the University of Tennessee to develop a distance-learning course in Radiation Measurements Laboratory on a joint grant from USNRC.

It is expected that both new faculty members will teach one or more of the traditional courses in nuclear engineering, e.g. Reactor Physics, Nuclear Materials and Nuclear Fuel Cycle. However, their research focus will be one that strengthens and reinforces our current research expertise in radiochemistry, and health physics. As stated earlier, the new faculty members will work closely with Dr. Castano or Dr. Usman, depending on their area of expertise.

## **B.2. Institutional Capacity, Recruitment and Marketing Strategies, and Selection Process**

Missouri S&T founded in 1870 as Missouri School of Mines is the premier technological university in the state of Missouri. With support from NRC, S&T matching funds, Exelon's matching grants, and the existing space and research support facilities, the junior faculty will be able to obtain graduate student support, establish needed laboratory facilities for their research, publish their research, and develop new curricula in their areas of research.

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On-campus facilities supporting the Faculty Development Program include (1) Missouri S&T Nuclear Reactor (MSTR) (<http://nuclear.mst.edu/research/reactor.html>), a pool type reactor with enhanced nuclear facilities including nuclear activation analysis, neutron radiography, pneumatic irradiation facilities (RABBIT), internet accessible high flux neutron and gamma spectroscopy facility, and a subcritical assembly, (2) Energy Research and Development Center (ERDC) (<http://energy.mst.edu>) which assists professors in different departments to promote interdisciplinary research in areas related to energy, (3) Materials Research Center (MRC) (<http://mrc.mst.edu>) which provides a wide variety of analytical services in support of materials research including SEM-EDS, TEM, XRD, XPS, Auger, TDS, as well as electrochemical equipment and other analytical tools. Professors associated with MRC provide opportunities for collaborative research, including providing in-house cash funds for new research initiatives. Four of the current five nuclear engineering (NE) faculty members (Professors Kumar, Usman, Castano and Lee) are Research Investigators in MRC. The two new faculty members to be hired in NE will be expected to join the MRC research team to facilitate their research in radiochemistry and nuclear forensics, (4) Radiation Measurements & Spectroscopy Laboratory (Fulton Hall) includes a variety of state of the art radiation measurement equipment including HP-Ge, NaI and gas detectors, ion chambers, TLD equipment, and an array of sealed radioactive sources. Liquid Scintillation Counter is available in Schrenk Hall. Other facilities in Fulton Hall include a wet chemistry Lab, Modulated Beam Mass Spectrometry Lab (hydrogen initiatives are conducted here), and a Lead-shielded Room for low background counting.

#### **B.2.1. Recruitment and Marketing Strategies for Faculty Selection and Hiring**

After obtaining approval from the Missouri S&T administration, the two approved tenure-track positions was advertised nationally on the S&T Human Resources Website, Nuclear News, and on the website of HigherEdjobs.com. In addition, the position was also advertised to all Nuclear Engineering Departments in the nation through NEDHO (Nuclear Engineering Department Heads Organization). The advertisement for the open position encouraged females, minorities, and those with disabilities to apply. Applicants for the position sent their resume, journal publications, and professional development plans to S&T Human Resources (HR). HR sent copies of all applications for review to the chair of the Selection Committee for the faculty position, appointed by the S&T Provost. The chair and the committee members are currently meeting to evaluate and rank the applicants in the areas of teaching, research, and professional service. All candidates meeting the minimum criteria in all three areas will be interviewed by the selection committee first by telephone to narrow down the list of candidates for an on-campus interview. S&T policy requires the chair of the selection committee to provide justification for eliminating candidates from the interview pool. The candidates selected for an on-campus interview will be invited to the campus to meet with all nuclear engineering faculty members individually. The candidates will also meet with the Department Chair, Vice-Provost for Academic Affairs, and the S&T Equal Employment Opportunities Officer. The on-campus visit will include a seminar attended by the nuclear engineering and campus faculty and students. Attendees of the seminar will be requested by the chair of the selection committee to provide their feedback on the strengths and weaknesses of the candidates. The selection committee chair will also collect the evaluations of candidates by all professors and Reactor staff involved in the evaluation process. Finally, the selection committee will make a recommendation to the department regarding the best candidate to be hired and the ranking of the remaining qualified candidates. The Department Chair's recommendation will then be sent to the Provost and HR for final action. The final offer letter will be sent by HR to the best candidate.

A similar interview process will be followed for the faculty member to be hired in Fall 2011.

### **B.2.2. Quality of Junior Faculty Served**

Two tenure-track faculty members at the Assistant Professor level have been approved by the Missouri S&T administration to be hired, one each in Fall 2010 and Fall 2011. The Fall 2010 position has been filled by Dr. Ayodeji Alajo. The advertisement for the position encourages females, minorities and those with disabilities to apply. The advertisement is attached (Attachment B.2.2.1). The second tenure-track faculty position is in the process of being filled. The letter of approval is attached (Attachment B.2.2.2).

The persons hired/to be hired for the two tenure-track faculty position have/must have attributes of a faculty member who at the end of their respective six year probationary periods will be able to obtain tenure and promotion to the rank of Associate Professor of Nuclear Engineering.

The selected candidates for both tenure-track faculty positions have/must have an earned doctorate in nuclear engineering/radiological engineering. The candidates are expected to develop and maintain externally funded research programs and to teach courses in nuclear engineering at both the undergraduate and graduate levels. The candidates are also expected to guide graduate student research and establish a good publication record. Oral and written proficiency in English must be demonstrated. Participation in departmental activities and professional societies is also expected. Missouri S&T is an AA/EEO employer.

In order to assess the potential of the selected candidates to succeed as an assistant professor, we look for reasonable evidences of teaching and research in the candidate's curriculum vita. Evidences of teaching may include working as a teaching assistant during the candidate's graduate level experience. Evidence of research may include publication in refereed journals, ANS transactions or other conference proceedings. In addition to the candidate's research and teaching abilities, their communication skills are also evaluated by having each candidate present a seminar in the candidate's area of research to the students and faculty before being ranked for hiring. The candidate's ability to present their research and future plans, and their willingness and ability to answer questions in a clear and unambiguous manner are key criteria in determining the candidate's suitability as a teacher.

After the two tenure-track faculty members will be hired they will be mentored by two standing faculty committees, a Research Mentoring Committee (Prof. Arvind Kumar and Prof. Jason Baird) and a Teaching mentoring Committee (Prof. Paul Worsey and Prof. Gary Mueller). These two standing committees mentor and advise all junior faculty members in the department to assure that the junior faculty members' performance is at or above expectation with the ultimate goal being the tenure/promotion of the junior faculty. The standing committees are in addition to the Faculty Development Evaluation Committee, described below in Section B.3, appointed for the sole purpose of evaluating the success of the proposed Faculty Development program.

In addition to the yearly review by the Department Chair, the new faculty members also undergo a 3-year mid-term review by a campus-wide committee appointed by the Vice-Provost for Academic Affairs to assure that the departmental review process is adequate and the new faculty members are making satisfactory progress toward tenure and promotion.

Promotion and tenure policies of Missouri S&T can be viewed at <http://provost.mst.edu/faculty/documentation.html>. These policies represent a mechanism for assuring that the faculty, who are the key resource of an institution, have the talents, abilities, and inclination to carry out the full mission of the University. The granting of tenure represents a major commitment on the part of the institution and with the selection process, it is one of the dominant tools in shaping the quality, productivity, and performance of the departments that make up the University. The promotion and tenure documentation must adequately demonstrate

that thorough consideration has been given to all facets of the abilities and performance of a faculty member being considered for promotion and tenure.

The faculty members due for consideration to be promoted to associate professor during their sixth year of probationary period must (1) have the personal qualities, intellectual interests, and the academic competence required for effective teaching and effective research/scholarship, (2) possess the enthusiasm and the capacity to motivate students, (3) have demonstrated the capacity for independent creative thinking, (4) Have indicated both the willingness and capability to participate as a respected colleague in deliberations concerning the department and the University, (5) Be recognized as an effective teacher as demonstrated by student and peer evaluation, awards and honors, course and curriculum development activities, (6) Be recognized as an effective researcher/scholar as demonstrated by publication of significant research results, securing of research support, scholarly presentations or publications of pedagogical nature and/or publication of textbooks, transfer of new technology, and/or other scholarly creative attainments recognized in the field through external evaluation by professional peers, (7) Be recognized by colleagues and peers as making significant contributions to departmental and institutional goals.

### **B.3. Management Structure and Capability for Administering the Program**

The three mentoring and evaluation committees include a Research Mentoring Committee (chaired by Dr. A. Kumar, Program Chair & Professor of Nuclear Engineering), a Teaching Mentoring Committee (chaired by Dr. P. Worsey, Professor of Mining Engineering), and the newly formed Faculty Development Evaluation Committee (chaired by Dr. M. Al-Dahhan, Chair of Chemical and Biological Engineering). An annual report, including the results of the Evaluation and Assessment efforts will be provided to the NRC Project Manager no later than 30 days after each 6-month period beginning with the project's start date. A final performance report will be submitted no later than 90 days after the award expiration date.

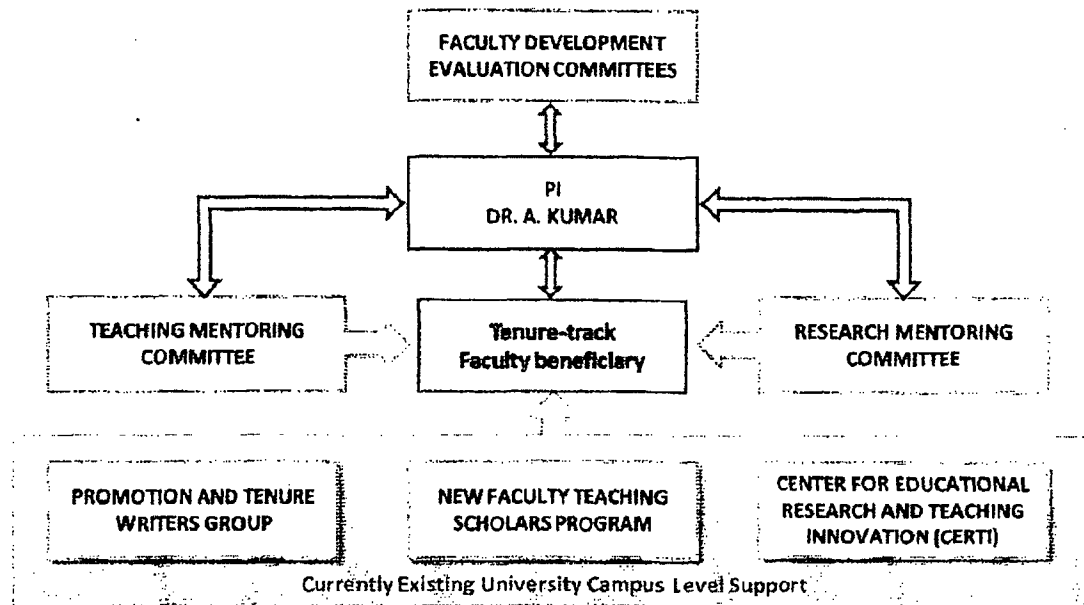
#### **B.3.1. Institutional Support and Plans for Sustainability**

Missouri S&T is committed to the sustainability and growth of its NE program. The campus has maintained and supported the nuclear reactor facility on campus without any cuts for the last 50 years even during times of financial hardship. Likewise, during the current hiring freeze the campus administration permitted hiring of three tenure track faculty members in nuclear engineering, one each in Fall 2009, Fall 2010 and Fall 2011, respectively. The fact that the campus has constantly supported both the nuclear program and the on-campus reactor for the last 50 years is a strong evidence of their commitment to our NE program.

The Teaching Mentoring Committee and Research Mentoring Committee in the Nuclear Engineering Program as well as the Promotion and Tenure Writers Group, the New Faculty Teaching Scholars Program, and the Center for Educational Research and Teaching Innovation (CERTI) at the university will support the Faculty Development Program by providing guidance and workshops to the participant junior faculty.

The following figure represents a graphical sketch of how the Faculty Development Program will be administered. The interactions shown are not meant to stiffen the process, but facilitate dialog by presenting the new participant beneficiary faculty member with helpful opinions and recommendations. Individual committee members and individual committees are welcome to contact and freely interact with the participant beneficiary faculty member. The members of all committees have been selected given ample experience in their respective areas and their willingness to serve.

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#### **B.4. Evaluation Plan - Measuring the Effectiveness of the Faculty Development Program**

A Faculty Development Evaluation Committee with clear communication channels and expectations has been formed to keep track of the progress of the beneficiary faculty. The evaluation committee consists of 3 Missouri S&T professors and 2 external nuclear engineering professionals. The committee members include Prof. M. Al-Dahhan, Chair of the Chemical and Biological Engineering Department; Prof. W. Fahrenholtz, Professor of Ceramic Engineering; Prof. K. Chandrasekhar Curator's Professor of Mechanical and Aerospace Engineering; Prof. M. Al-Sheikhly, Professor & Director, Radiation Facilities and Nuclear Reactor, Department of Materials Science and Engineering at the University of Maryland; and Dr. J. Wagner, Technical Integrator, Nuclear Modeling, Design & Safety at Oak Ridge National Laboratory. The evaluation committee will meet once every six months to evaluate the faculty members' progress, to identify their strengths and weaknesses and to provide them with guidance for improvement. This will assist the junior faculty members to excel in teaching and research so that they can obtain tenure and promotion and eventually become productive members of the S&T faculty.

Each participant faculty member will write a progress report every year and submit it to the committee. The committee will evaluate the performance of each faculty member and share opinions and concerns in annual meetings at the Missouri S&T campus. In the event that a committee member cannot attend the meeting he will be asked to attend virtually by web meeting and provide written feedback. The feedback will consist of the evaluator's assessment on the faculty member's progress toward the goals of the program. In a progress report, each participant faculty member will prepare a performance matrix which will be used by the Evaluation Committee to determine the degree to which each participant is progressing toward the goal of achieving excellence in teaching and research. The performance matrix will include, progress of on-going research including setting up of lab facilities, proposals submitted and funded, conference and journal papers submitted, new courses developed, classes taught and student evaluations, classroom evaluation by NE professors, report of innovative techniques in teaching, and advising activities (graduate students supervised and undergraduates advised).



The contents of the annual progress reports from each participant faculty will contribute to the final dossier that the candidate will submit to the campus at the time of promotion and tenure.

#### **B.5. Leveraged and Matching Funds**

Missouri S&T will provide a total of \$151,038 for three years of the NRC Faculty Development grant, of which \$50,891 will be provided during the first year. Letter of financial support from the Vice Provost for Research of Missouri S&T is attached. (Please see Attachment B-5-1). In addition to the Missouri S&T campus match, Exelon Nuclear is expected to provide \$50,000 per year as a continuation of their current support of \$50,000 provided each year for the last 3 years in anticipation of NRC Faculty development Grants. (Please see attached letter, Attachment B-5-2, from Dr. Shahkarami, Senior Vice President, Exelon Nuclear for the 2009-2010 year). An email, Attachment B-5-3, from Dr. William Naughton of Exelon for the 2010-2011 support is also attached. Dr. John Gutteridge of NRC is aware of the partnership between Exelon and 5 U.S. universities including Missouri S&T.

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## **Attachment C – Standard Terms and Conditions**

### **The Nuclear Regulatory Commission's Standard Terms and Conditions for U.S. Nongovernmental Grantees**

#### **Preface**

This award is based on the application submitted to, and as approved by, the Nuclear Regulatory Commission (NRC) under the authorization 42 USC 2051(b) pursuant to section 31b and 141b of the Atomic Energy Act of 1954, as amended, and is subject to the terms and conditions incorporated either directly or by reference in the following:

- Grant program legislation and program regulation cited in this Notice of Grant Award.
- Restrictions on the expenditure of Federal funds in appropriation acts, to the extent those restrictions are pertinent to the award.
- Code of Federal Regulations/Regulatory Requirements - 2 CFR 215 Uniform Administrative Requirements For Grants And Agreements With Institutions Of Higher Education, Hospitals, And Other Non-Profit Organizations (OMB Circulars), as applicable.

To assist with finding additional guidance for selected items of cost as required in 2 CFR 220, 2 CFR 225, and 2 CFR 230 this URL to the Office of Management and Budget Cost Circulars is included for reference to:

A-21 (now 2 CFR 220)  
A-87 (now 2 CFR 225)  
A-122 (now 2 CFR 230)  
A-102:

[http://www.whitehouse.gov/omb/circulars\\_index-ffm](http://www.whitehouse.gov/omb/circulars_index-ffm)

Any inconsistency or conflict in terms and conditions specified in the award will be resolved according to the following order of precedence: public laws, regulations, applicable notices published in the Federal Register, Executive Orders (EOs), Office of Management and Budget (OMB) Circulars, the Nuclear Regulatory Commission's (NRC) Mandatory Standard Provisions, special award conditions, and standard award conditions.

**Certifications and Representations:** These terms incorporate the certifications and representations required by statute, executive order, or regulation that were submitted with the SF424B application through Grants.gov.

#### **I. Mandatory General Requirements**

The order of these requirements does not make one requirement more important than any other requirement.

##### **1. Applicability of 2 CFR Part 215**

a. All provisions of 2 CFR Part 215 and all Standard Provisions attached to this grant/cooperative agreement are applicable to the Grantee and to sub-recipients which meet the definition of "Grantee" in Part 215, unless a section specifically excludes a sub-recipient from

coverage. The Grantee and any sub-recipients must, in addition to the assurances made as part of the application, comply and require each of its sub-awardees employed in the completion of the project to comply with Subpart C of 2 CFR 215 and include this term in lower-tier (subaward) covered transactions.

b. Grantees must comply with monitoring procedures and audit requirements in accordance with OMB Circular A-133. <

[http://www.whitehouse.gov/omb/circulars/a133\\_compliance/08/08toc.aspx](http://www.whitehouse.gov/omb/circulars/a133_compliance/08/08toc.aspx) >

## **2. Award Package**

### **§ 215.41 Grantee responsibilities.**

The Grantee is obligated to conduct such project oversight as may be appropriate, to manage the funds with prudence, and to comply with the provisions outlined in 2 CFR 215.41. Within this framework, the Principal Investigator (PI) named on the award face page, Block 11, is responsible for the scientific or technical direction of the project and for preparation of the project performance reports. This award is funded on a cost reimbursement basis not to exceed the amount awarded as indicated on the face page, Block 16., and is subject to a refund of unexpended funds to NRC.

The standards contained in this section do not relieve the Grantee of the contractual responsibilities arising under its contract(s). The Grantee is the responsible authority, without recourse to the NRC, regarding the settlement and satisfaction of all contractual and administrative issues arising out of procurements entered into in support of an award or other agreement. This includes disputes, claims, protests of award, source evaluation or other matters of a contractual nature. Matters concerning violation of statute are to be referred to such Federal, State or local authority as may have proper jurisdiction.

### **Subgrants**

#### **Appendix A to Part 215—Contract Provisions**

Sub-recipients, sub-awardees, and contractors have no relationship with NRC under the terms of this grant/cooperative agreement. All required NRC approvals must be directed through the Grantee to NRC. See 2 CFR 215 and 215.41.

### **Nondiscrimination**

(This provision is applicable when work under the grant/cooperative agreement is performed in the U.S. or when employees are recruited in the U.S.)

No U.S. citizen or legal resident shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity funded by this award on the basis of race, color, national origin, age, religion, handicap, or sex. The Grantee agrees to comply with the non-discrimination requirements below:

Title VI of the Civil Rights Act of 1964 (42 USC §§ 2000d et seq)

Title IX of the Education Amendments of 1972 (20 USC §§ 1681 et seq)

Section 504 of the Rehabilitation Act of 1973, as amended (29 USC § 794)

The Age Discrimination Act of 1975, as amended (42 USC §§ 6101 et seq)

The Americans with Disabilities Act of 1990 (42 USC §§ 12101 et seq)

Parts II and III of EO 11246 as amended by EO 11375 and 12086.

EO 13166, "Improving Access to Services for Persons with Limited English Proficiency."

Any other applicable non-discrimination law(s).

Generally, Title VI of the Civil Rights Act of 1964, 42 USC § 2000e et seq, provides that it shall be an unlawful employment practice for an employer to discharge any individual or otherwise to discriminate against an individual with respect to compensation, terms, conditions, or privileges of employment because of such individual's race, color, religion, sex, or national origin. However, Title VI, 42 USC § 2000e-1(a), expressly exempts from the prohibition against discrimination on the basis of religion, a religious corporation, association, educational institution, or society with respect to the employment of individuals of a particular religion to perform work connected with the carrying on by such corporation, association, educational institution, or society of its activities.

#### **Modifications/Prior Approval**

NRC's prior written approval may be required before a Grantee makes certain budget modifications or undertakes particular activities. If NRC approval is required for changes in the grant or cooperative agreement, it must be requested of, and obtained from, the NRC Grants Officer in advance of the change or obligation of funds. All requests for NRC prior approval should be made, in writing (which includes submission by e-mail), to the designated Grants Specialist and Program Office no later than 30 days before the proposed change. The request must be signed by both the PI and the authorized organizational official. Failure to obtain prior approval, when required, from the NRC Grants Officer may result in the disallowance of costs, or other enforcement action within NRC's authority.

#### **Lobbying Restrictions**

The Grantee will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

The Grantee shall comply with provisions of 31 USC § 1352. This provision generally prohibits the use of Federal funds for lobbying in the Executive or Legislative Branches of the Federal Government in connection with the award, and requires disclosure of the use of non-Federal funds for lobbying.

The Grantee receiving in excess of \$100,000 in Federal funding shall submit a completed Standard Form (SF) LLL, "Disclosure of Lobbying Activities," regarding the use of non-Federal funds for lobbying within 30 days following the end of the calendar quarter in which there occurs any event that requires disclosure or that materially affects the accuracy of the information contained in any disclosure form previously filed. The Grantee must submit the SF-LLL, including those received from sub-recipients, contractors, and subcontractors, to the Grants Officer.

#### **§ 215.13 Debarment And Suspension.**

The Grantee agrees to notify the Grants Officer immediately upon learning that it or any of its principals:

- (1) Are presently excluded or disqualified from covered transactions by any Federal department or agency;
- (2) Have been convicted within the preceding three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal,

State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, receiving stolen property, making false claims, or obstruction of justice; commission of any other offense indicating a lack of business integrity or business honesty that seriously and directly affects your present responsibility;

(3) Are presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b); and

(4) Have had one or more public transactions (Federal, State, or local) terminated for cause or default within the preceding three years.

b. The Grantee agrees that, unless authorized by the Grants Officer, it will not knowingly enter into any subgrant or contracts under this grant/cooperative agreement with a person or entity that is included on the Excluded Parties List System (<http://epis.arnet.gov>).

The Grantee further agrees to include the following provision in any subgrant or contracts entered into under this award:

'Debarment, Suspension, Ineligibility, and Voluntary Exclusion

The Grantee certifies that neither it nor its principals is presently excluded or disqualified from participation in this transaction by any Federal department or agency. The policies and procedures applicable to debarment, suspension, and ineligibility under NRC-financed transactions are set forth in 2 CFR Part 180.'

#### **Drug-Free Workplace**

The Grantee must be in compliance with The Federal Drug Free Workplace Act of 1988. The policies and procedures applicable to violations of these requirements are set forth in 41 USC 702.

#### **Implementation of E.O. 13224 -- Executive Order On Terrorist Financing**

The Grantee is reminded that U.S. Executive Orders and U.S. law prohibits transactions with, and the provision of resources and support to, individuals and organizations associated with terrorism. It is the legal responsibility of the Grantee to ensure compliance with these Executive Orders and laws. This provision must be included in all contracts/sub-awards issued under this grant/cooperative agreement.

Award Grantees must comply with Executive Order 13224, Blocking Property and Prohibiting Transactions with Persons who Commit, Threaten to Commit, or Support Terrorism. Information about this Executive Order can be found at: [www.fas.org/irp/offdocs/eo/eo-13224.htm](http://www.fas.org/irp/offdocs/eo/eo-13224.htm).

#### **Procurement Standards. § 215.40-48**

Sections 215.41 through 215.48 set forth standards for use by Grantees in establishing procedures for the procurement of supplies and other expendable property, equipment, real property and other services with Federal funds. These standards are furnished to ensure that such materials and services are obtained in an effective manner and in compliance with the provisions of applicable Federal statutes and executive orders. No additional procurement

standards or requirements shall be imposed by the Federal awarding agencies upon Grantees, unless specifically required by Federal statute or executive order or approved by OMB.

#### **Travel**

Travel must be in accordance with the Grantee's Travel Regulations or the US Government Travel Policy and Regulations at: [www.gsa.gov/federaltravelregulation](http://www.gsa.gov/federaltravelregulation) and the per diem rates set forth at: [www.gsa.gov/perdiem](http://www.gsa.gov/perdiem), absent Grantee's travel regulation. Travel costs for the grant must be consistent with provisions as established in Appendix A to 2 CFR 220 (J.53). All other travel, domestic or international, must not increase the total estimated award amount.

#### **Domestic Travel:**

Domestic travel is an appropriate charge to this award and prior authorization for specific trips are not required, if the trip is identified in the Grantee's approved program description and approved budget. Domestic trips not stated in the approved budget require the written prior approval of the Grants Officer, and must not increase the total estimated award amount.

All common carrier travel reimbursable hereunder shall be via the least expensive class rates consistent with achieving the objective of the travel and in accordance with the Grantee's policies and practices. Travel by first-class travel is not authorized unless prior approval is obtained from the Grants Officer.

#### **International Travel:**

**International travel requires PRIOR written approval by the Project Officer and the Grants Officer, even if the international travel is stated in the approved program description and the approved budget.**

The Grantee shall comply with the provisions of the Fly American Act (49 USC 40118) as implemented through 41 CFR 301-10.131 through 301-10.143.

#### **Property and Equipment Management Standards**

Property and equipment standards of this award shall follow provisions as established in 2 CFR 215.30-37.

#### **Procurement Standards**

Procurement standards of this award shall follow provisions as established in 2 CFR 215.40-48

#### **Intangible and Intellectual Property**

Intangible and intellectual property of this award shall generally follow provisions established in 2 CFR 215.36.

**Inventions Report** - The Bayh-Dole Act (P.L. 96-517) affords Grantees the right to elect and retain title to inventions they develop with funding under an NRC grant award ("subject inventions"). In accepting an award, the Grantee agrees to comply with applicable NRC policies, the Bayh-Dole Act, and its Government-wide implementing regulations found at Title 37, Code of Federal Regulations (CFR) Part 401. A significant part of the regulations require that the Grantee report all subject inventions to the awarding agency (NRC) as well as include an acknowledgement of federal support in any patents. NRC participates in the trans-government Interagency Edison system (<http://www.iedison.gov>) and expects NRC funding Grantees to use this system to comply with Bayh-Dole and related intellectual property reporting requirements. The system allows for Grantees to submit reports electronically via the Internet. In

addition, the invention must be reported in continuation applications (competing or non-competing).

**Patent Notification Procedures-** Pursuant to EO 12889, NRC is required to notify the owner of any valid patent covering technology whenever the NRC or its financial assistance Grantees, without making a patent search, knows (or has demonstrable reasonable grounds to know) that technology covered by a valid United States patent has been or will be used without a license from the owner. To ensure proper notification, if the Grantee uses or has used patented technology under this award without license or permission from the owner, the Grantee must notify the Grants Officer. This notice does not necessarily mean that the Government authorizes and consents to any copyright or patent infringement occurring under the financial assistance.

**Data, Databases, and Software** - The rights to any work produced or purchased under a NRC federal financial assistance award are determined by 2 CFR 215.36. Such works may include data, databases or software. The Grantee owns any work produced or purchased under a NRC federal financial assistance award subject to NRC's right to obtain, reproduce, publish or otherwise use the work or authorize others to receive, reproduce, publish or otherwise use the data for Government purposes.

**Copyright** - The Grantee may copyright any work produced under a NRC federal financial assistance award subject to NRC's royalty-free nonexclusive and irrevocable right to reproduce, publish or otherwise use the work or authorize others to do so for Government purposes. Works jointly authored by NRC and Grantee employees may be copyrighted but only the part authored by the Grantee is protected because, under 17 USC § 105, works produced by Government employees are not copyrightable in the United States. On occasion, NRC may ask the Grantee to transfer to NRC its copyright in a particular work when NRC is undertaking the primary dissemination of the work. Ownership of copyright by the Government through assignment is permitted under 17 USC § 105.

**Records Retention and Access Requirements** for records of the Grantee shall follow established provisions in 2 CFR 215.53.

**Organizational Prior Approval System**

In order to carry out its responsibilities for monitoring project performance and for adhering to award terms and conditions, each Grantee organization shall have a system to ensure that appropriate authorized officials provide necessary organizational reviews and approvals in advance of any action that would result in either the performance or modification of an NRC supported activity where prior approvals are required, including the obligation or expenditure of funds where the governing cost principles either prescribe conditions or require approvals.

The Grantee shall designate an appropriate official or officials to review and approve the actions requiring NRC prior approval. Preferably, the authorized official(s) should be the same official(s) who sign(s) or countersign(s) those types of requests that require prior approval by NRC. The authorized organization official(s) shall not be the principal investigator or any official having direct responsibility for the actual conduct of the project, or a subordinate of such individual.

**Conflict Of Interest Standards** for this award shall follow OCOI requirements set forth in Section 170A of the Atomic Energy Act of 1954, as amended, and provisions set forth at 2 CFR 215.42 Codes of Conduct.

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### **Dispute Review Procedures**

- a. Any request for review of a notice of termination or other adverse decision should be addressed to the Grants Officer. It must be postmarked or transmitted electronically no later than 30 days after the postmarked date of such termination or adverse decision from the Grants Officer.
- b. The request for review must contain a full statement of the Grantee's position and the pertinent facts and reasons in support of such position.
- c. The Grants Officer will promptly acknowledge receipt of the request for review and shall forward it to the Director, Office of Administration, who shall appoint an intra-agency Appeal Board to review a grantee appeal of an agency action, if required, which will consist of the program office director, the Deputy Director of Office of Administration, and the Office of General Counsel.
- d. Pending resolution of the request for review, the NRC may withhold or defer payments under the award during the review proceedings.
- e. The review committee will request the Grants Officer who issued the notice of termination or adverse action to provide copies of all relevant background materials and documents. The committee may, at its discretion, invite representatives of the Grantee and the NRC program office to discuss pertinent issues and to submit such additional information as it deems appropriate. The chairman of the review committee will insure that all review activities or proceedings are adequately documented.
- f. Based on its review, the committee will prepare its recommendation to the Director, Office of Administration, who will advise the parties concerned of his/her decision.

**Termination and Enforcement.** Termination of this award by default or by mutual consent shall follow provisions as established in 2 CFR 215.60-62.

### **Monitoring and Reporting § 215.50-53**

- a. Grantee Financial Management systems must comply with the established provisions in 2 CFR 215.21
    - Payment – 2 CFR 215.22
    - Cost Share – 2 CFR 215.23
    - Program Income – 2 CFR 215.24
      - Earned program income, if any, shall be added to funds committed to the project by the NRC and Grantee and used to further eligible project or program objectives or deducted from the total project cost allowable cost as directed by the Grants Officer or the terms and conditions of award.
    - Budget Revision – 2 CFR 215.25
      - The Grantee is required to report deviations from the approved budget and program descriptions in accordance with 2 CFR 215.25, and request prior written approval from the Program Officer and the Grants Officer.
      - The Grantee is not authorized to rebudget between direct costs and indirect costs without written approval of the Grants Officer.
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- o The Grantee is authorized to transfer funds among direct cost categories up to a cumulative 10 percent of the total approved budget. The Grantee is not allowed to transfer funds if the transfer would cause any Federal appropriation to be used for purposes other than those consistent with the original intent of the appropriation.
- o Allowable Costs – 2 CFR 215.27

#### **b. 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:

Grants FFR@NRC.GOV. **(NOTE: There is an underscore between Grants and FFR).**

#### **Period of Availability of Funds 2 CFR § 215.28**

- a. Where a funding period is specified, a Grantee may charge to the grant only allowable costs resulting from obligations incurred during the funding period and any pre-award costs authorized by the NRC.
- b. Unless otherwise authorized in 2 CFR 215.25(e)(2) or a special award condition, any extension of the award period can only be authorized by the Grants Officer in writing. Verbal or written assurances of funding from other than the Grants Officer shall not constitute authority to obligate funds for programmatic activities beyond the expiration date.
- c. The NRC has no obligation to provide any additional prospective or incremental funding. Any modification of the award to increase funding and to extend the period of performance is at the sole discretion of the NRC.
- d. Requests for extensions to the period of performance should be sent to the Grants Officer at least 30 days prior to the grant/cooperative agreement expiration date. Any request for extension after the expiration date may not be honored.

#### **Automated Standard Application For Payments (ASAP) Procedures**

Unless otherwise provided for in the award document, payments under this award will be made using the Department of Treasury's Automated Standard Application for Payment (ASAP) system < <http://www.fms.treas.gov/asap/> >. Under the ASAP system, payments are made through preauthorized electronic funds transfers, in accordance with the requirements of the Debt Collection Improvement Act of 1996. In order to receive payments under ASAP, Grantees are required to enroll with the Department of Treasury, Financial Management Service, and Regional Financial Centers, which allows them to use the on-line method of withdrawing funds from their ASAP established accounts. The following information will be required to make withdrawals under ASAP: (1) ASAP account number – the award number found on the cover sheet of the award; (2) Agency Location Code (ALC) – 31000001; and Region Code. Grantees enrolled in the ASAP system do not need to submit a "Request for Advance or Reimbursement" (SF-270), for payments relating to their award.

## **Audit Requirements**

Organization-wide or program-specific audits shall be performed in accordance with the Single Audit Act Amendments of 1996, as implemented by OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations."

<http://www.whitehouse.gov/omb/circulars/a133/a133.html> Grantees are subject to the provisions of OMB Circular A-133 if they expend \$500,000 or more in a year in Federal awards.

The Form SF-SAC and the Single Audit Reporting packages for fiscal periods ending on or after January 1, 2008 must be submitted online.

1. Create your online report ID at <http://harvester.census.gov/fac/collect/ddeindex.html>
2. Complete the Form SF-SAC
3. Upload the Single Audit
4. Certify the Submission
5. Click "Submit."

Organizations expending less than \$500,000 a year are not required to have an annual audit for that year but must make their grant-related records available to NRC or other designated officials for review or audit.

## **III. Programmatic Requirements**

### **Performance (Technical) Reports**

a. The Grantee shall submit performance (technical) reports electronically to the NRC Project Officer and Grants Officer on a semi-annual basis unless otherwise authorized by the Grants Officer. Performance reports should be sent to the Program Officer at the email address indicated in Block 12 of the Notice of Award, and to Grants Officer at:

Grants\_PPR.Resource@NRC.GOV. (***NOTE: There is an underscore between Grants and PPR.***)

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 Human Resources requires the submission of the semi-annual progress report on the SF-PPR, SF-PPR-B, and the SF-PPR-E forms. The submission for the six month period ending March 31<sup>st</sup> is due by April 30<sup>th</sup>, or any portion thereof. The submission for the six month period ending September 30<sup>th</sup> is due by October 31<sup>st</sup> or any portion thereof.

d. Grant Performance Metrics:

The Office of Management and Budget requires all Federal Agencies providing funding for educational scholarships and fellowships as well as other educational related funding to report on specific metrics. These metrics are part of the Academic Competitiveness Council's (ACC) 2007 report and specifically relates to Science, Technology, Engineering, and Mathematics (STEM) curricula.

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As part of the FY 2010 HR grant awards, in addition to the customary performance progress report requested on the SF-PPR, SF-PPR-B, and SF-PPR-E forms, HR requires the following metrics to be reported on by the awardees as follows:

#### **Faculty Development Awards**

1. Number of new faculty hired and currently eligible faculty supported in NRC designated STEM areas.

#### **Unsatisfactory Performance**

Failure to perform the work in accordance with the terms of the award and maintain at least a satisfactory performance rating or equivalent evaluation may result in designation of the Grantee as high risk and assignment of special award conditions or other further action as specified in the standard term and condition entitled "Termination."

Failure to comply with any or all of the provisions of the award may have a negative impact on future funding by NRC and may be considered grounds for any or all of the following actions: establishment of an accounts receivable, withholding of payments under any NRC award, changing the method of payment from advance to reimbursement only, or the imposition of other special award conditions, suspension of any NRC active awards, and termination of any NRC award.

#### **Other Federal Awards With Similar Programmatic Activities**

The Grantee shall immediately provide written notification to the NRC Project Officer and the Grants Officer in the event that, subsequent to receipt of the NRC award, other financial assistance is received to support or fund any portion of the program description incorporated into the NRC award. NRC will not pay for costs that are funded by other sources.

#### **Prohibition Against Assignment By The Grantee**

The Grantee shall not transfer, pledge, mortgage, or otherwise assign the award, or any interest therein, or any claim arising thereunder, to any party or parties, banks, trust companies, or other financing or financial institutions without the express written approval of the Grants Officer.

#### **Site Visits**

The NRC, through authorized representatives, has the right, at all reasonable times, to make site visits to review project accomplishments and management control systems and to provide such technical assistance as may be required. If any site visit is made by the NRC on the premises of the Grantee or contractor under an award, the Grantee shall provide and shall require his/her contractors to provide all reasonable facilities and assistance for the safety and convenience of the Government representative in the performance of their duties. All site visits and evaluations shall be performed in such a manner as will not unduly delay the work.

#### **IV. Miscellaneous Requirements**

##### **Criminal and Prohibited Activities**

- a. The Program Fraud Civil Remedies Act (31 USC §§ 3801-3812), provides for the imposition of civil penalties against persons who make false, fictitious, or fraudulent claims to the Federal government for money (including money representing grant/cooperative agreements, loans, or other benefits.)

- b. False statements (18 USC § 287), provides that whoever makes or presents any false, fictitious, or fraudulent statements, representations, or claims against the United States shall be subject to imprisonment of not more than five years and shall be subject to a fine in the amount provided by 18 USC § 287.
- c. False Claims Act (31 USC 3729 et seq), provides that suits under this Act can be brought by the government, or a person on behalf of the government, for false claims under federal assistance programs.
- d. Copeland "Anti-Kickback" Act (18 USC § 874), prohibits a person or organization engaged in a federally supported project from enticing an employee working on the project from giving up a part of his compensation under an employment contract.

#### **American-Made Equipment And Products**

Grantees are hereby notified that they are encouraged, to the greatest extent practicable, to purchase American-made equipment and products with funding provided under this award.

#### **Increasing Seat Belt Use in the United States**

Pursuant to EO 13043, Grantees should encourage employees and contractors to enforce on-the-job seat belt policies and programs when operating company-owned, rented or personally-owned vehicle.

#### **Federal Leadership of Reducing Text Messaging While Driving**

Pursuant to EO 13513, Grantees should encourage employees, sub-awardees, and contractors to adopt and enforce policies that ban text messaging while driving company-owned, rented vehicles or privately owned vehicles when on official Government business or when performing any work for or on behalf of the Federal Government.

#### **Federal Employee Expenses**

Federal agencies are generally barred from accepting funds from a Grantee to pay transportation, travel, or other expenses for any Federal employee unless specifically approved in the terms of the award. Use of award funds (Federal or non-Federal) or the Grantee's provision of in-kind goods or services, for the purposes of transportation, travel, or any other expenses for any Federal employee may raise appropriation augmentation issues. In addition, NRC policy prohibits the acceptance of gifts, including travel payments for Federal employees, from Grantees or applicants regardless of the source.

#### **Minority Serving Institutions (MSIs) Initiative**

Pursuant to EOs 13256, 13230, and 13270, NRC is strongly committed to broadening the participation of MSIs in its financial assistance program. NRC's goals include achieving full participation of MSIs in order to advance the development of human potential, strengthen the Nation's capacity to provide high-quality education, and increase opportunities for MSIs to participate in and benefit from Federal financial assistance programs. NRC encourages all applicants and Grantees to include meaningful participations of MSIs. Institutions eligible to be considered MSIs are listed on the Department of Education website:

<http://www.ed.gov/about/offices/list/ocr/edlite-minorityinst.html>

#### **Research Misconduct**

Scientific or research misconduct refers to the fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. It does not include honest errors or differences of opinions. The Grantee organization has the primary

responsibility to investigate allegations and provide reports to the Federal Government. Funds expended on an activity that is determined to be invalid or unreliable because of scientific misconduct may result in a disallowance of costs for which the institution may be liable for repayment to the awarding agency. The Office of Science and Technology Policy at the White House published in the Federal Register on December 6, 2000, a final policy that addressed research misconduct. The policy was developed by the National Science and Technology Council (65 FR 76260). The NRC requires that any allegation be submitted to the Grants Officer, who will also notify the OIG of such allegation. Generally, the Grantee organization shall investigate the allegation and submit its findings to the Grants Officer. The NRC may accept the Grantee's findings or proceed with its own investigation. The Grants Officer shall inform the Grantee of the NRC's final determination.

#### **Publications, Videos, and Acknowledgment of Sponsorship**

Publication of the results or findings of a research project in appropriate professional journals and production of video or other media is encouraged as an important method of recording and reporting scientific information. It is also a constructive means to expand access to federally funded research. The Grantee is required to submit a copy to the NRC and when releasing information related to a funded project include a statement that the project or effort undertaken was or is sponsored by the NRC. The Grantee is also responsible for assuring that every publication of material (including Internet sites and videos) based on or developed under an award, except scientific articles or papers appearing in scientific, technical or professional journals, contains the following disclaimer:

"This [report/video] was prepared by [Grantee name] under award [number] from [name of operating unit], Nuclear Regulatory Commission. The statements, findings, conclusions, and recommendations are those of the author(s) and do not necessarily reflect the view of the [name of operating unit] or the US Nuclear Regulatory Commission."

#### **Trafficking In Victims Protection Act Of 2000 (as amended by the Trafficking Victims Protection Reauthorization Act of 2003)**

Section 106(g) of the Trafficking In Victims Protection Act Of 2000 (as amended as amended, directs on a government-wide basis that:

"any grant, contract, or cooperative agreement provided or entered into by a Federal department or agency under which funds are to be provided to a private entity, in whole or in part, shall include a condition that authorizes the department or agency to terminate the grant, contract, or cooperative agreement, without penalty, if the grantee or any subgrantee, or the contractor or any subcontractor (i) engages in severe forms of trafficking in persons or has procured a commercial sex act during the period of time that the grant, contract, or cooperative agreement is in effect, or (ii) uses forced labor in the performance of the grant, contract, or cooperative agreement." (22 U.S.C. § 7104(g)).

#### **Award Term**

2 CFR 170.220 directs agencies to include the following text to each grant award to a non-federal entity if the total funding is \$25,000 or more in Federal funding.

Reporting Subawards and Executive Compensation.

a. *Reporting of first-tier subawards.*

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1. *Applicability.* Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates \$25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in paragraph e. of this award term).

2. *Where and when to report.*

i. You must report each obligating action described in paragraph a.1. of this award term to <http://www.fsrs.gov>.

ii. For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)

3. *What to report.* You must report the information about each obligating action that the submission instructions posted at <http://www.fsrs.gov> specify.

b. *Reporting Total Compensation of Recipient Executives.*

1. *Applicability and what to report.* You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if—

i. the total Federal funding authorized to date under this award is \$25,000 or more;

ii. in the preceding fiscal year, you received—

(A) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(B) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

iii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>.)

2. *Where and when to report.* You must report executive total compensation described in paragraph b.1. of this award term:

i. As part of your registration profile at <http://www.ccr.gov>.

ii. By the end of the month following the month in which this award is made, and annually thereafter.

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*c. Reporting of Total Compensation of Subrecipient Executives.*

1. *Applicability and what to report.* Unless you are exempt as provided in paragraph d. of this award term, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if—

i. in the subrecipient's preceding fiscal year, the subrecipient received—

(A) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

(B) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and

ii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <http://www.sec.gov/answers/execomp.htm>.)

2. *Where and when to report.* You must report subrecipient executive total compensation described in paragraph c.1. of this award term:

i. To the recipient.

ii. By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (i.e., between October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.

*d. Exemptions*

If, in the previous tax year, you had gross income, from all sources, under \$300,000, you are exempt from the requirements to report:

i. Subawards,

and

ii. The total compensation of the five most highly compensated executives of any subrecipient.

e. *Definitions.* For purposes of this award term:

1. *Entity* means all of the following, as defined in 2 CFR part 25:

- i. A Governmental organization, which is a State, local government, or Indian tribe;
- ii. A foreign public entity;
- iii. A domestic or foreign nonprofit organization;
- iv. A domestic or foreign for-profit organization;
- v. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

2. *Executive* means officers, managing partners, or any other employees in management positions.

3. *Subaward*:

- i. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.
- ii. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. \_\_\_\_ .210 of the attachment to OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations").
- iii. A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

4. *Subrecipient* means an entity that:

- i. Receives a subaward from you (the recipient) under this award; and
- ii. Is accountable to you for the use of the Federal funds provided by the subaward.

5. *Total compensation* means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

- i. *Salary and bonus*.
  - ii. *Awards of stock, stock options, and stock appreciation rights*. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.
  - iii. *Earnings for services under non-equity incentive plans*. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
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iv. *Change in pension value.* This is the change in present value of defined benefit and actuarial pension plans.

v. *Above-market earnings on deferred compensation which is not tax-qualified.*

vi. Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds \$10,000.

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