



## ATTACHMENT A - SCHEDULE

### A.1 PURPOSE OF GRANT

The purpose of this Grant is to provide support to the "San Diego State University – Environmental Radiation Dose Measurement, Modeling, and Communication Program" as described in Attachment B entitled "Program Description."

### A.2 PERIOD OF GRANT

1. The effective date of this Grant is April 1, 2012. The estimated completion date of this Grant is March 31, 2014.

2. Funds obligated hereunder are available for program expenditures for the estimated period: April 1, 2012 – March 31, 2014.

#### A. GENERAL

1. Total Estimated NRC Amount:	\$199,661.00
2. Total Obligated Amount:	\$199,661.00
3. Cost-Sharing Amount:	\$0.00
4. Activity Title:	Environmental Radiation Dose Measurement, Modeling, and Communication
5. NRC Project Officer:	Tanya Parwani-Jaimes
6. DUNS No.:	073371346

#### B. SPECIFIC

RFPA No.:	HR-12-140
FAIMIS:	GR0176
Job Code:	T8458
BOC:	4110
B&R Number:	2012-84-51-K-164
Appropriation #:	31X0200
Amount Obligated:	\$199,661.00

### A.3 BUDGET

Revisions to the budget shall be made in accordance with Revision of Grant Budget in accordance with 2 CFR 215.25.

	Year 1	Year 2
Total Direct Charges	\$136,942.00	\$30,052.00
Indirect Charges	<u>\$ 17,791.00</u>	<u>\$14,876.00</u>
<b>Yearly Total</b>	<b><u>\$154,733.00</u></b>	<b><u>\$44,928.00</u></b>

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

1. The total estimated amount of this Award is \$199,661.00 for a two year period.
2. NRC hereby obligates the amount of \$199,661.00 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 Grants 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**

#### **1) Institutional Capability and Capacity Building**

For over 50 years San Diego State University's (SDSU) graduate program in Radiological Health Physics program has provided a well-educated and dedicated workforce of radiation protection professionals. Many of our graduates have become Certified (ABHP) Health Physicists. In the early days we received funding from the Atomic Energy Commission to raise our program to a level where we could make major contributions to the reactor health physics workforce. Our output of health physicists is well beyond ten-fold of any other educational institution within the State of California. Since 1960 we have graduated over 300 health- and medical-physics professionals including many who are employed within the power reactor industry.

The program currently includes fundamental courses in radiation physics, atomic and nuclear physics, nuclear instrumentation (laboratory), radiation dosimetry, and radiation biology. What we do not have is a course in environmental radiation measurement. This new course will expand on the basic fundamentals of Health Physics and become a permanent required course to our Master of Science in Radiological Health Physics program. It will be offered through the extended studies program so that it is also available to students not enrolled at SDSU. Our student recruitment efforts will include targeting what has been historically underrepresented groups seeking education and employment in health physics. We expect to enroll approximately 30 students annually through our use of distance learning and weekend laboratory sessions. We will draw students from SDSU's programs in health physics, environmental sciences, public health, and homeland security. Also we expect non-student professionals seeking education enhancements.

#### **SDSU Laboratory facilities pertinent to this project.**

##### **SDSU Nuclear Instrumentation Laboratory**

We currently have a well-equipped laboratory containing basic equipment:

- 1) Ionization chambers, proportional counters, and GM counters.
- 2) Solid-state and scintillation detectors (Including: silicon, NaI, and HP Ge)
- 3) Spectroscopy equipment for alpha, beta, gamma, and neutron fields.
- 4) Whole Body Counter Facility
- 5) Associated electronics and computer equipment.

## Visualization Center

The Visualization Center (Viz Center) (<http://vizcenter.net/>) includes computing, communications, visualization, data fusion, sensor networks, and data storage. We have several high-end computational machines including an SGI Prism with 24 GB of RAM, 8 processors, and 6 TB of local disk. Our major servers are Sun Blades (17 blades or servers) that can support about 10 million web-service hits a day. Our servers are directly connected to the Internet backbone at the San Diego Supercomputer Center (SDSC) at the University of California, San Diego and are accessed by dedicated fiber from SDSU to SDSC. The Viz Center has a variable amount of bandwidth depending on which switches are running; up to a maximum to 10 Gbps, which is the research connection that we are traditionally trying to fill with our applications as we help design the Future Internet (<http://www.optiputer.net>).

## **Significant Collaboration with San Onofre Nuclear Generating Station (SONGS), Southern California Edison**

SDSU is conveniently located near San Onofre Nuclear Generating Station (SONGS) and is able to coordinate with the facility in order for our students to gain important practical experience. By using instructors with first-hand knowledge and professional experience at this facility, our health physics curriculum will provide access to power reactor health physics applications and reinforce the importance of health physics applications in the nuclear industry. Our students, taught by superbly trained adjunct faculty from San Onofre Nuclear Generating Station (SONGS), have been on the cutting edge of technology and also had access to the site for hands-on, real-world experiences. Since 1980 we have had collaborations with San Onofre Nuclear Generating Station (SONGS). These relationships have included SONGS health physics staff as adjunct faculty and our students gaining internship experiences at the plant. We see these collaborations continuing well into the future.

This two-year project allows us to design and implement a new course that focuses on topics related to environmental radiation dose measurement and modeling. The course will also train students on effective means of clear communication in the case if an incident releases radioactivity into the environment. The majority of grant funds will be applied to equipment costs. We will use faculty already employed at the university with active collaborations with SONGS, so that we are committed and able to sustain the course in the years after the grant award.

As the United States is committed to moving its nuclear energy initiatives forward--SDSU is poised and ready to respond. SDSU can take on a significant role in responding to workforce needs. Our contribution will enhance the Nuclear Environmental Protection Educational infrastructure necessary to support our Nations efforts to safely move forward with nuclear energy. SDSU is committed to continuing it's role in training students in this vital area of nuclear safety related to the nuclear power industry.

## **2) Proposed Approach and Collaborative Linkages**

During the two-year project period we will research, design, develop, implement, and assess curriculum materials for this new course. This course will be required for students in the graduate program and also can be used by non-student professionals seeking education enhancements. Early on we expect 10-15 students/year. We believe that

within 5 years our numbers will be at least 30 students/year. We will draw students from SDSU's programs in health physics, environmental sciences, geography, and homeland security. We will also take advantage of our partnership with the San Onofre Nuclear Power Generating Station (SONGS). Faculty involved in this project (Goldin and Jennex) are associated with both SONGS and SDSU and will facilitate the flow of information and implementation of power reactor scenario-based problems.

By using the SDSU Scientific Visualization Lab, (Viz lab) we will enhance this training experience by using several Health Physics modeling programs such as HOTSPOT, MCNP, and FRMAC. Training with these models provides a proactive workforce rather than a reactive one and the Viz lab allows for real-world, real-time planning. This course will complement our other courses and serve to better prepare radiation professionals for the workforce.

Our modeling efforts will range from simulated laboratory configurations to real-world field experiences. Field experiences will be user defined in such that we will design our simulations to model current technologies. Our goal will be to focus our data acquisition and data analysis results into a Scientific Visualization form that is easily read and analyzed by everyone in the decision chain.

We will apply a blended learning approach. Within the SDSU College of Sciences we have been moving many courses and pieces of courses into a Blended or Hybrid Learning delivery mode. Blending different technologies together in one course provides a more dynamic learning environment and allows for different options and expressions of educational materials. To be successful, a hybrid or blended course requires careful pedagogical design. We see these developments as being very useful--for example, to health physics technicians at various nuclear power plants. At this time our past and present collaborations with SONGS make them a natural partner for this project. We will utilize BlackBoard Academic Suite (provided and fully-supported by SDSU), as an in-class and distance education platform to deliver the major instructional components of our curriculum.

Our focus during the project period will be on this single course. After completion we will have developed many tools that will allow us to make further progress on the conversion of our other existing courses.

We will develop and implement a professional Instructional website which leverages proven Instructional Design software such as: Adobe Captivate/Presenter, Articulate Studio or Authorware 7. Throughout the courses we will include these learning objects and modules:

1. Video archives of selected lectures on theory or in the field training demonstrations.
2. Stand-alone, content-specific short concept movies, Flash and JavaScript concept animation, Adobe Flex and Air, wikis, YouTube FAQs, and networking tools via appropriate use of commodity tools such as Facebook and Google groups, with major use of Google Earth, Apps, gears, widgets, Sites, and other Google tools and developing capabilities.
3. MCNP, HOTSPOT, and FRMAC simulations for comparison to laboratory and fieldwork data.

4. Online student-Instructor-Industry chat forums, wikis, and social networking tools such as Facebook, Flickr, Twitter, Google Groups, and IRC channels.

### **Curriculum Underpinnings and Timeline**

The underlying theme throughout the curriculum will be the incorporation of real-life scenarios. We will employ information from authentic real-world experiences (data acquisition). We will utilize Scientific Visualization techniques (data analysis, visual analytics, simulation) throughout our instruction and assessment. Using our unique assets such as the SDSU Visualization Center and we have the necessary access, scientific, and technical collaborations needed to create a successful course. We will continue our collaborative partnerships with San Onofre Nuclear Generation Station. Assignments are drawn from real-world problems encountered by reactor HPs. At least one field trip will be arranged to visit either the San Onofre Nuclear Generating Station or associated training facilities.

In our first year of the project, we plan to incorporate 60% of the lecture portion of the course into effective and engaging online learning objects. Also, 60% of laboratory exercises will be developed. By the end of the second year the lecture portion of the course will be fully offered on-line and all laboratory exercises will be completed. Our students will:

- 1) Work with relevant authentic data sets.
- 2) Create visual representations of data sets.
- 3) Analyze these representations for possible alternative solutions.
- 4) Assess these visual representations for their value in solving problems.
- 5) Clearly communicate results to decision makers and the public.

This course will include the following main topics:

- A) Environmental Monitoring and Measurement
- B) Dose Distribution Modeling
- C) Assessment-Internal Dosimetry
- D) Risk Communication and Emergency Preparedness Planning

#### **A) Environmental Monitoring and Measurement**

Environmental Monitoring and Measurement covers the principles and practices of radiological assessment including environmental transport and pathway analysis, concepts, models, and methodology for calculating internal doses, as well as risk estimates and risk communication. We review environmental pathway analysis and internal exposure calculation methodology. We begin with the methods for assessing the dispersion of radioactive materials in the environment and calculation of the dose consequences to human receptors. This includes airborne dispersion based on meteorological models, methods that account for dose due to direct exposure to a plume, due to deposition on ground surfaces, and by inhalation. Radionuclide migration in groundwater will also be covered. We apply these concepts to the movement of radionuclides through the environment that results in human exposure. The focus is on internal exposure through food pathways although the exposure due to deposition and subsequent direct radiation exposure is also covered. Both terrestrial and marine exposure paths are considered. We have requested funding in order to purchase an

outdoor environmental radiation monitor that will serve as both a real-world and teaching tool that allows wind-born environmental data to be collected and analyzed by faculty and students.

The course will also include instruction on instrument calibration of area and particulate air monitors (to include an outdoor environmental monitor that will be purchased with the grant funds) and personnel dosimeters including responses during background conditions and interpreting responses to operating or emergency conditions. Students will also be trained in instrument calibrations and measurements for environmental tests (wipe counts) by liquid scintillation – beta spectrometry. The course will also cover measurements with High Purity Germanium (HPGe) detectors for identification of isotopes in environmental samples. The laboratory will take place on 4 (6 hour) weekend sessions throughout the semester. We are asking for the funds to purchase one Environmental air-monitoring station for permanent installation on the campus of SDSU. We will purchase the HI-Q ERAM-1 Environmental Radiation Air Monitor for real-time air monitoring of beta and gamma radionuclides. We also are seeking funds to purchase four portable air-sampling systems (also from HI-Q) for field work. All other lab equipment is already on-campus in our nuclear instrumentation laboratory.

### **B) Dose Distribution (Plume) Modeling**

Students will study various dose distribution modeling tools for determining the environmental impact of a radiological incident. Students will model the transport of radiation contamination and determine mitigation strategies using computer programs such as HOTSPOT and MCNP. Comparisons and contrasts will be made among various software packages.

### **C) Assessment-Internal Dosimetry**

Radiological Assessment will include environmental transport and pathway analysis, concepts, models, and methodology for calculating internal doses, as well as risk estimates. Students will employ FRMAC tools to facilitate dose calculations. We review environmental pathway analysis and internal exposure calculation methodology. We begin with the methods for assessing the dispersion of radioactive materials in the environment and calculation of the dose consequences to human receptors. This includes airborne dispersion based on meteorological models, methods that account for dose due to direct exposure to a plume, due to deposition on ground surfaces, and by inhalation. We then review liquid releases to surface waters and to groundwater including analytical methods for point surface discharges, discharges to small lakes and reservoirs, and discharges to rivers. Radionuclide migration in groundwater is also covered. We apply these concepts to the movement of radionuclides through the environment that results in human exposure. The focus is on internal exposure through food pathways although the exposure due to deposition and subsequent direct radiation exposure is also covered. Both terrestrial and marine exposure paths are considered.

### **D) Risk Communication and Emergency Preparedness Planning**

The risk communication section of the course will teach students effective communication tools for dealing with workers and the public on radiation safety issues. The goal is for students to achieve a balanced perspective on radiation health risks that extends beyond the physics of radiation. This understanding enables the student to know the difference and relationship between risk assessment and risk communication in conveying safety information (decisions,

data, etc). Population monitoring is a process that begins soon after a radiation incident is reported and continues until all potentially affected people have been monitored and evaluated for: 1) needed medical treatment, 2) the presence of radioactive contamination on the body or clothing, 3) the intake of radioactive materials into the body, 4) the removal of external or internal contamination (decontamination), 5) the radiation dose received and the resulting health risk from the exposure, and 6) long-term health effects. Many critical components of population monitoring should be put in place in the first few hours after the incident, before the arrival of federal assets that might be used to assist in the monitoring efforts. However, the challenges of population monitoring especially in the first few hours and days after a radiation incident tend to be overlooked in emergency response planning. This module will discuss the practical considerations for operating a community reception center and the role that the reactor health physicists may take on. The HP will be involved in planning at the state and local public health departments throughout the country. The HP will analyze the risks of radiation contamination spread and determine mitigation strategies.

### **Project Assessment**

The evaluation plan will be designed to measure the effectiveness of methods and degree of completion of the objectives of this program. In order to measure our success in meeting our goals, we will design, develop, implement and assess:

1. Specific content standards
2. Student learning goals that increase a student's:
  - a) knowledge of the theoretical aspects of health physics.
  - b) problem-solving skills.
  - c) knowledge in the practical applications of health physics.
  - d) ability to write and speak effectively.
  - e) ability to critically review research with the intent of applying findings to health physics practice.
3. Formative assessment tools such as quizzes and lab reports and summative assessments such as midterms and final exams.
4. Quantifiable criteria to evaluate instruction effectiveness such as student exit surveys and annual assessment reports.

Each content standard, student learning goal, and assessment measure will be carried out and communicated clearly to the students and faculty. All assessment pieces will focus on determining our effectiveness on meeting our key objective— integrating a traditional lecture model of instruction with hands-on real-world experiences. Our assessment tools will include input from industry personnel. And our assessment program will be reviewed and critiqued by the San Diego State Assessment Committee. This committee is made up of faculty, staff, and students from across the University. This group has extensive experience in evaluating assessment programs. We will be working very closely with them throughout this project.

### **3) Supporting and Advancing the Nuclear Safety, Nuclear Security, or Nuclear Environmental Protection Educational Infrastructure.**



## Environmental Monitoring for the Region

This project will provide the equipment and curriculum necessary to improve the education of our students. Therefore, we will be more effective at training the future workforce necessary to support the nuclear power industry. Also, the environmental monitoring equipment will be used for the detection of air-borne radioactivity. This capability will help serve the San Diego region for determination of unintended releases of radioactive material. This capability would have been useful spring 2011 in response to providing information during the aftermath of the Fukushima Dai-ichi Nuclear Power Plant. Dr Papin and Dr Jennex were sought after for comment by news outlets and ask many times to provide measurements related to questions on the potential of increased radiation background levels within San Diego County. ***This capability will be effective in advancing the educational infrastructure necessary to allow the Nation to safely advance its nuclear energy initiatives.***

## Creation of the “Nuclear Detection Instrumentation Technology Division”

To effectively bring together faculty, staff, and students from both health physics and nuclear security and homeland security we will develop a nuclear detection technology division to our Center for Homeland Security (<http://homelandsecurity.sdsu.edu/>). The focus of this newly developed division of the center will be to develop and test nuclear detection instrumentation and methods specifically for applications in reactor health physics and for countering the serious threat of a nuclear terrorist attack. Striving to help produce an end product for deployment, and management of global nuclear detection architecture. This center will improve the educational infrastructure, teaching competencies, subject matter expertise, and skills in serving students. Our health physics students will be integral component of the center.

SDSU is currently involved with DHS efforts directed at international border between US and Mexico. Additionally, SDSU is a partner with the DHS funded Center of Excellence for Border Security Issues specializing in risk assessment and management. Therefore, our division will focus on nuclear detection technologies as applied to the health physics, reactor health physics, and homeland security. Health physicists and emergency first responders will study and evaluate test instruments for alerting decision makers with appropriately compelling data visualizations in our VIZ lab. SDSU is the only California school in the Oak Ridge Association of Universities (ORAU, <http://www.ornl.gov/>) and is the closest ORAU school to the US-Mexico border. We are linked to other schools along the border via the Southwest Border Security Consortium (SBSC) and the DHS Center of Excellence on border Security and Immigration where

SDSU focuses on the Risk Assessment and Geospatial Mapping and Visualization. We would like to provide this research interface to the nation and assist nuclear scientists, students, and others in designing radiologic-based technologies.

**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 \_\_\_\_\_ 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 -  
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 \_\_\_\_\_, and \_\_\_\_\_ 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:

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**

a. All provisions of \_\_\_\_\_ 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

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 2 CFR 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://epls.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.

## **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**

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.



- 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.
- Allowable Costs – 2 CFR 215.27

#### **b. Federal Financial Reports**

The Grantee shall submit a "Federal Financial Report" (SF-425) on a semi-annual basis for the periods ending March 31 and September 30, 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](mailto: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.

As part of the 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:

## **Curriculum Development Awards**

1. Overall number of new courses developed in NRC designated STEM areas (including the names of the courses);
2. Number of students enrolled in new STEM courses;
3. Number of these enrolled students retained in STEM major.

## **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)).

### **Executive Compensation Reporting**

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.*

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.

*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;

- 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.



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.