

ATTACHMENT A - SCHEDULE

A.1 PURPOSE OF GRANT

The purpose of this Grant is to provide support to the "Midlands Technical College's Nuclear Systems Technician Scholarship Program" as described in Attachment B entitled "Program Description."

A.2 PERIOD OF GRANT

1. The effective date of this Grant is May 1, 2010. The estimated completion date of this Grant is April 30, 2011.

2. Funds obligated hereunder are available for program expenditures for the estimated period: May 1, 2010 – April 30, 2011.

A. GENERAL

1. Total Estimated NRC Amount:	\$150,000.00
2. Total Obligated Amount:	\$150,000.00
3. Cost-Sharing Amount:	\$ 96,442.00
4. Activity Title:	The Nuclear Systems Technician Scholarship Program
5. NRC Project Officer:	John Gutteridge
6. DUNS No.:	069329753

B. SPECIFIC

RFPA No.:	HR-10-903
FFS:	N/A
Job Code:	T8460
BOC:	4110
B&R Number:	0-8415-5C115
Appropriation #:	31X0200
Amount Obligated:	\$150,000.00

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
Direct Participant Cost	\$148,980.00
Indirect Cost	\$ 1,020.00
Yearly Total	\$150,000.00

All travel must be in accordance with the Midlands Technical College Travel Regulations or the US Government Travel Policy absent Grantee's travel regulation.

A.4 AMOUNT OF AWARD AND PAYMENT PROCEDURES

1. The total estimated amount of this Award is \$150,000.00 for the one year period.

2. NRC hereby obligates the amount of \$150,000.00 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

Nuclear Systems Technician Scholarship Program at Midlands Technical College

PROGRAM MANAGEMENT: RECRUITING AND FUNDING QUALIFIED STUDENTS

Midlands Technical College (MTC) will award approximately 25 competitive scholarships ranging from \$600 to \$10,000 to students majoring in Nuclear Systems Technology during the 2010-11 academic year. The Nuclear program was approved in March 2009 by the South Carolina Commission on Higher Education, and courses started in Fall 2009. Recruitment efforts greatly exceeded expectations with 53 students currently enrolled and another 27 registered for Spring 2010 classes. New students are joining the program at a rate of three per week and commuting as far as 108 miles round trip. A total of 152 candidates have been interviewed for the program to date. Currently two females and 51 males, more than one-third of which are minority students, are enrolled in the first semester of the program. Both day and evening classes were necessary to accommodate the volume of recruited students.

South Carolina Electric & Gas Company (SCE&G) is collaborating with MTC to develop a workforce capable of supporting their nuclear plant expansions and aging workforce. SCE&G will add two nuclear reactors in 2016 and 2019 at the V.C. Summer Nuclear Station in Jenkinsville, SC. Collaboration with SCE&G has formed the basis of the Nuclear program and related Associate in Occupational Technology (AOT) degree (see Appendix A - SCE&G Letter of Support). MTC is working with the State Board on approval of an Associate Degree in Mechanical Engineering Technology (MET), a more universally recognized credential that will replace the AOT. Once approved, the Engineering Department will work with the Accreditation Board for Engineering and Technology (ABET) to add the new Mechanical Engineering Technology associate degree and nuclear concentration to MTC's ABET accredited programs, which have included Architectural, Civil, and Electronics engineering technologies since 1969. For 35 years, MTC has served the Midlands region of South Carolina (which consists of Richland, Lexington and Fairfield counties) offering associate degrees in arts and sciences for transfer to four-year colleges and more than 100 degrees, diplomas, and certificates in career programs. MTC is the fifth largest college in the state in enrollment with 15,000 students in academic programs and over 30,000 in continuing education programs. MTC is accredited by the Southern Association of Colleges and Schools.

The availability of scholarship funds will greatly enhance MTC's Engineering Department recruiting and retention efforts for the Nuclear program. The primary objectives of the scholarship program are: to award scholarships to highly qualified students; provide a supportive network of services to assist in their academic progress, completion of the program, and placement in a nuclear-related field; monitor fulfillment of their service commitment; and benefit nuclear development. In 2008, nearly 52% of the full-time freshmen entering MTC were first-generation and/or low-income students (US Department of Education). Finances can be a major barrier to entrance and persistence in college for many students. Informative brochures on the program will be distributed during recruiting activities with high schools in conjunction with the Midlands Education and Business Alliance (see Appendix B - MEBA letter of support), meetings with *Project Lead the Way* (PL TW) partner high schools (see Appendix C - PL TW letter of support), and among current MTC students to attract a large and diverse pool of candidates. Successful recruiting efforts on campus will continue including co-hosting events with SCE&G, new student advisement, and multi-media campaigns including campus email, closed circuit TV

announcements, flyers, letters, and the MTC website.

The principal investigator, Dr. Clint Chandler, Chair of the Engineering Department, has led MTC's Nuclear Systems Technology Advisory Panel for the past two years. The Advisory Panel has guided the program from inception and includes MTC's President, the Vice President for Academic Affairs, two mechanical engineering faculty, the Vice President for Student Development Services, Recruiting and Community Outreach staff, and three upper management members from SCE&G's human resources, training, and development offices (see Appendix 0 - SCE&G letter of support). The Advisory Panel will be expanded to include representation from MTC's Student Financial Services, the Outreach and Retention Office, and the MTC Foundation.

Dr. Chandler will be responsible for the scholarship program assisted by the Advisory Panel's new scholarship subcommittee. The subcommittee will assist in the selection process by reviewing academic records, professional ethics, and financial needs of all students in the Nuclear program and recommending the top candidates. Preference will be given to second-year, minority, and female students based on academic merit. Students will provide documentation of US citizenship, maintain¹ a minimum cumulative GPA of 2.75 and enroll full-time (12 hrs) while receiving scholarship support (see Appendix E - Scholarship Guidelines). Scholarships will supplement federal and/or state awards students receive. Scholarship recipients will be required to sign pertinent paperwork including the NRC Service Agreement (see Appendix F) before distribution of funds.

MTC has a successful track record in raising scholarship funds through industry partnerships, private donations, and grants to sponsor exceptional students needing financial assistance. The Engineering Department successfully collaborates with the Michelin Corporation and Student Enrollment Services in a similar scholarship program providing on-the-job paid internships, full tuition, and book stipends. This program has produced several highly trained interns who joined the Michelin workforce. The MTC Foundation Office awarded 275 scholarships totaling \$169,000 during the 2009-10 academic year in a program they have successfully managed since 1985. Additionally, MTC is a partner in the South Carolina Alliance for Minority Participation (SCAMP) scholarship program funded by the National Science Foundation for Science, Technology, Engineering and Math (STEM) majors under the leadership of SC State University, a historically black university (HBCU). Through SCAMP sponsorship, MTC awarded \$41,373 in scholarships to 56 students during the 2008-09 academic year, the second year of this five-year program. MTC has been a part of the STEM scholarships program for minority students since 1992.

Tuition and fees for a full-time students residing in the tri-county service area of MTC is \$1,804 per semester. Residents of other SC counties pay \$2,236 per semester and out-of-state students pay \$5,212 per semester. A student enrolled in the Nuclear program can expect to pay \$210 per semester for books and is required to purchase a graphing calculator for \$150.

STUDENT SUPPORT: MENTORING AND ADVISING

MTC Student Development Services provides students placement testing, counseling, employment services, financial services, advisement, tutoring, computer services, and veteran services. More than 20 student organizations meet on campus under the guidance of faculty sponsors including the *American Society for Engineering Education (A SEE)*, and two organizations focused on supporting minority students; the African American Male Leadership Institute, and Sister Circle for African American females. Faculty leaders will share the scholarship and mentoring opportunities with their sponsored student organizations. In Fall 2008, 44% of the college's student population was African American, Hispanic or other non-Caucasian race. Similarly, 37% of MTC faculty and staff are nonCaucasian. MTC is in a unique position to facilitate diversification within the Nuclear workforce.

Each Nuclear program student is assigned to one of the two nuclear faculty advisors (Bowles and Butts) for their entire program, with one exception. Students in the accelerated Nuclear program, those with prior engineering coursework or degrees and/or experience, are assigned to the Engineering Department Chair, Dr. Chandler. Each faculty member provides course advisement, and reserves eight hours per week for open access by students. Students can take advantage of this time for tutoring and mentoring, or they can make appointments through the administrative staff. Outreach and Retention staff serving on the Advisory

Panel will co-host monthly meetings with scholarship recipients and Nuclear program faculty to establish a unique learning community, discuss issues, get better acquainted and encourage interaction between faculty, staff and students. Retention efforts will include:

- Each student assigned to a specific nuclear faculty advisor for their entire program
- An informational meeting highlighting the scholarship program and related requirements
- Monthly meetings for scholarship recipients (Nuclear learning community) highlighting program and college resources to assist students
- Weekly office hours (eight hours minimum per week) held by Nuclear faculty for access by students for mentoring, advising and tutoring
- Mid-term progress reports on scholarship recipients.

The Nuclear faculty advisors will meet regularly with the PI and the Outreach and Retention staff to review student status and progression. Each nuclear faculty advisor will provide information to the PI on student grades and performance. This information will be added to a new **student tracking system** that will produce mid-term reports on each scholarship recipient including information on all program coursework and any drop/add/withdrawal activity. The same system will produce periodic summary reports on each student's academic standing and progression toward degree completion. Concerns or issues will be discussed with the student at mid-term to assist them in correcting problems hindering their success in the program. Data and reports from the new student tracking system will assist the PI with progress reports to the NRC, SCE&G's selection of candidates for their summer internship program and the Outreach and Retention staff in monitoring student progress toward graduation and through job placement and retention.

EVALUATION PLAN

The PI and Nuclear Systems Technology Advisory Panel will employ an evaluation plan that includes both formative and summative data to assess program objectives which include attracting a large and diverse pool of candidates, awarding scholarships to the most qualified students, mentoring/advising students, providing access to internships, encouraging degree completion and placing graduates in nuclear-related jobs they retain. Performance measures include:

- Recruitment activities and results
- Mentoring and advising activities
- Mid-term academic progress reports
- Student Learning Outcomes (SLOs)
 - Persistence rates (retention)
- Student GPA
- Graduation rates
- Job placement and retention rates
- Service contract fulfillment

Formative performance measures will include recruiting activities and resulting applications to the program as well as mentoring and advising activities that students will evaluate in surveys and/or periodic interviews. The quality and usefulness of mid-term progress reports will be assessed by program participants. Summative data on grades from mid-term reports will be compared to final grades in Nuclear courses. Summative data will also include student performance on student learning outcomes for the course, persistence rates, GPA, graduation rates, job placement and job retention rates. Outcomes for scholarship recipients will be compared to non-recipients to assess the overall impact of the program on Nuclear students. Job retention will also be examined as graduates are tracked through their required service in the nuclear industry.

The new student tracking system will help in evaluating the program. While the college maintains a central database on students, assimilating the data needed for program assessment is complex and requires advanced IT skills. Creation and tracking of data for mid-term progress reports is not required by the college, yet it can point to early warning signs and opportunities for assisting students. The grant budget includes contractual services that will set up customized data input screens and reports for closely tracking scholarship recipients.

INSTITUTIONAL SUPPORT AND SUSTAINABILITY

Dr. Marshall (Sonny) White, Jr., MTC president, has placed workforce development in nuclear energy among his top three priorities for impacting regional economic development. The Nuclear Systems Technician Scholarship program will be supported by many of the Institutional Priorities established by

MTC's Executive Council including expansion of the Engineering Department promoting Bridge Programs with local four-year colleges, supporting identified economic clusters of the region, increasing enrollment in engineering programs by 5% over three years, developing curricula and programs to support alternate energy technologies including nuclear and hydrogen and increasing the retention rates of identified student populations (see Appendix G - Dr. White's Letter of Support). Dr. White initiated and has served on the Nuclear Systems Technology Advisory Panel for the past two years to forge the program with the help of industry partners and MTC leadership including the Vice President for Academic Affairs, Dr. Ron Drayton; the Engineering Department Chair, Dr. Clint Chandler; and the Vice President for Student Development Services Sandi Oliver. Midlands Technical College is strategically located in a region projected to be the center of significant nuclear expansion. Within MTC's service area, both plant expansions and an aging workforce will generate demand for nearly 90 new nuclear technicians by 2016, the year a second nuclear reactor is projected to come on line at the V.C. Summer plant. A third reactor will follow in 2019 and employment is projected to increase from 200 to 600 jobs with an additional 100 employees retiring during the same time frame; a projected job increase of 500.

Dr. Chandler, the PI, has personally interviewed 152 candidates who have expressed interest in the Nuclear program. Dr. Chandler, an eight-year veteran at MTC, holds a Ph.D. in Electrical Engineering from the University of South Carolina (USC). In addition to overseeing the program, he is shadowing an SCE&G employee to teach Nuclear Reactor Theory in the spring. Dr. Floyd Bowles, who holds an Ed.D. from USC and an MSME from Purdue University, and David Butts MSME from the Georgia Tech, are the nuclear faculty advisors and provide curriculum development, instruction, advising and mentoring for students in the program (see Appendix H Quality of Faculty). Bowles currently instructs Nuclear Power Plant Components and will instruct Nuclear Primary and Secondary Systems in the spring, while Butts instructs Print Reading and Sketching and will instruct Thermal Sciences this spring. Chandler, Bowles and Butts have served on the Advisory Panel since initiation of the Nuclear program. Each member is dedicated to the program and providing an effective and accountable scholarship program to assist students in accessing careers in the nuclear industry.

Dr. Ivelisse Ortiz-Hernandez, who holds a Ph.D. in Chemical Engineering from USC, will provide instruction for Nuclear Plant Chemistry in the spring. Dr. Ortiz-Hernandez serves as a role model for both female and minority students. SCE&G personnel are also providing instruction for the first year of the program in two of the seven Nuclear courses including Radiological Protection and Reactor Theory as well as training for the current engineering faculty who will replace them. These instructors are part of a recent corporate pledge to MTC's Foundation by SCE&G committing personnel and resources to ensure success and sustainability of the Nuclear program.

Expansion of the Nuclear Systems Technology Advisory Panel to include Outreach and Retention Student Financial Services and the MTC Foundation office shows the collaboration and commitment of the college to the success of the scholarship program. Additionally, key community leaders including SCE&G; Leadership Energy Carolinas; MEBA; and member secondary schools of Project Lead the Way are united in support of MTC's efforts to build awareness of the program and recruit quality students.

INNOVATION AND PARTNERSHIPS

SCE&G has shared an expansive collection of training manuals that MTC is systematically converting to college pedagogy including the creation of textbooks, syllabi, hands-on exercises, experiential learning experiences, assessment instruments and in-house development of computer simulations. MTC was recently awarded a grant from the National Science Foundation to explore the use of new 3D mechanical CAD interactive software with design validation and data management - a natural fit for developing training materials on the interworking of mechanical systems hidden from the naked eye.

MTC has established articulation agreements for engineering courses with the University of South Carolina (USC) where students can obtain a bachelor's in mechanical engineering and continue on to a master's or Ph.D. in nuclear engineering. Additionally, discussions are underway for articulation agreements with South Carolina State University (SCSU), a historically black university (HBCU) which offers a bachelor's degree in nuclear engineering. SCSU has suggested a two-plus-two program where the first two years of the B.S. in Nuclear Engineering can be completed at MTC and the last two years at

SCSU.

Nuclear energy is also one of the ten economic clusters targeted by South Carolina's Council on Competitiveness, also known as New Carolina. To this end, New Carolina has established the Leadership Energy Carolinas program designed to build leaders to support every aspect of the nuclear industry. Dr. Chandler has been accepted along with another member of the Advisory Panel, Krista Lyod-Jones in Recruiting and Community Outreach, for the 2010-11 class. Resources and expertise available at the Savannah River DOE national laboratory in Aiken, SC, are also being explored in support of the program. All partners, from industry leaders to area high schools and helping build a pipeline of professionals to address the safe and responsible growth in the nuclear industry through a successful associate degree program at MTC.

LEVERAGED/MATCHING FUNDS

In support of the proposed scholarship program, SCE&G has agreed to fund the SCE&G Summer Internship program for MTC students majoring in Nuclear Systems Technology (see Appendix I SCE&G Internship Program Letter). Each spring, the Advisory Panel will nominate the most qualified candidates in the Nuclear program for a five-week SCE&G Summer Internship Program. The purpose of the internship is to provide summer work opportunities where students can earn money and gain valuable industry experience in a nuclear plant work environment. In order to participate, a student must be enrolled in the MTC Nuclear program for two semesters and have a cumulative GPA of 2.75 or higher. It is estimated that the value of the SCE&G Summer Internship Program to the college on behalf of the Nuclear majors is approximately \$75,000. This value is based on the cost of two instructors for 300 hours each for preparation and classroom time, cost of materials, and an estimated \$42,000 in stipends for 15 students at \$14.00/hour over the five-week time period.

SCE&G is also developing a scholarship program that will sponsor three students per year from the immediate area of the V.C. Summer plant in Fairfield County. These scholarships will be awarded (based on the academic merit and demonstrated financial need of students. The proposed funding will be for three \$2,000 scholarships each year for five years for a total value of \$30,000 when finalized. SCE&G signed a corporate pledge with the MTC Foundation in August 2009 that includes: providing personnel to teach classes during the first year of the program, donation of equipment for training, on-site training for faculty at the V.C. Summer plant, a scholarship program, and \$55,001 annually to support professional development of the Engineering faculty. MTC is leveraging these funds to help build this new academic program and sponsor qualified students. The college is investing substantial resources from the time and talents of MTC faculty and staff to facilitate the scholarship program and provide the best learning environment for highly qualified scholarship recipients to meet the workforce needs of the nuclear industry and further its development.

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 these URLs to the Office of Management and Budget Cost Circulars are included for reference:

A-21 (now 2CFR 220): <http://www.whitehouse.gov/omb/circulars/a021/print/a021.html>
 A-87 (now 2CFR 225): <http://www.whitehouse.gov/omb/circulars/a087/print/a087-all.html>
 A-122 (now 2 CFR 230) <http://www.whitehouse.gov/omb/circulars/a122/print/a122.html>
 A-102, SF 424: <http://www.whitehouse.gov/omb/circulars/a102/print/a102.html>
 Form 990: <http://www.irs.gov/pub/irs-pdf/i990-ez.pdf>

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.

By drawing funds from the Automated Standard Application for Payment system (ASAP), the recipient agrees to the terms and conditions of an award.

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 Part 180 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 >

2. Award Package

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 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:

Trade Schools and Community College Awards

1. The number and percentage of STEM graduates who take a job in a STEM or STEM-related field.

Service Agreement

A signed service agreement and resume are required for all student recipients of scholarships or fellowships funded by the US Nuclear Regulatory Commission. The Service Agreement is attached to the Terms and Conditions.

§ 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 215.180 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 VII 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 VII, 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 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 must 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, termination of the award, 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.

Procurement Standards. § 215.40

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 is an appropriate charge to this award and prior authorization for specific trips are not required, as long as the trip is identified in the Grantee's original program description and original budget. All other travel, domestic or international, must not increase the total estimated award amount. Trips that have not been identified in the approved budget require the written prior approval of the Grants Officer.

Travel will be in accordance with the US Government Travel Regulations at: www.gsa.gov/federaltravelregulation and the per diem rates set forth at: www.gsa.gov/perdiem.

Travel costs to the grant must be consistent with provisions as established in Appendix A to 2 CFR 220 (J.53)

Property Management Standards

Property standards of this award shall follow provisions as established in 2 CFR 215.30.

Equipment procedures shall follow provision established in 2 CFR 215.34.

Procurement Standards

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

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 title and retain ownership 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 of this award shall follow provisions as established in 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 a review committee consisting of a minimum of three persons.
- 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.

Monitoring and Reporting § 215.51

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.
- Budget Revision – 2 CFR 215.25
 - In accordance with 2 CFR 215.25(e), the NRC waives the prior approval requirement for items identified in sub-part (e)(1-4).
 - The Grantee is not authorized to rebudget between direct costs and indirect costs without written approval of the Grants Officer.
 - Allowable Costs – 2 CFR 215.27

b. Federal Financial Reports

Effective October 1, 2008, NRC transitioned from the SF-269, SF-269A, SF-272, and SF-272A to the Federal Financial Report (SF-425) as required by OMB:

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

http://www.whitehouse.gov/omb/grants/standard_forms/ffr.pdf

http://www.whitehouse.gov/omb/grants/standard_forms/ffr_instructions.pdf

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 shall be submitted within 90 days after expiration of the award.

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 shall 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 shall 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 as specified in the special award conditions in the same frequency as the Federal Financial Report unless otherwise authorized by the Grants Officer.

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

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 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."

**2010 Trade School Scholarship Program
Service Agreement**

1. This service agreement is required for all student recipients of scholarships (hereinafter referred to as the "recipient") funded by the U.S. Nuclear Regulatory Commission (NRC) through the _____ (name of institution).
2. This agreement confirms the recipient's obligations to maintain satisfactory academic progress and serve 6 months in nuclear-related employment for each full year of academic support. The employment may be with nuclear-related industry, State agencies, Department of Energy laboratories, the NRC or other Federal agencies, or academia in the recipients' sponsored fields of study.
3. The scholarship recipient must:
 - a. remain matriculated in the degree program for the field of study for which the scholarship was approved,
 - b. maintain satisfactory academic progress in the recipient's field of study, and
 - c. maintain a course load of at least 12 credit hours per semester as a full-time student in good standing.
4. If a recipient fails to maintain satisfactory academic progress, the scholarship will be terminated and the recipient could be obligated to repay the NRC the full amount of the scholarship/fellowship.
5. If a recipient receives any subsequent scholarship(s) through this program, the service obligation periods will be consecutive.
6. At the discretion of the NRC, the service obligation period may be delayed to allow the recipient to continue a subsequent degree program immediately following that sponsored under this program. For example, if a recipient receives a scholarship to earn a baccalaureate degree, he/she may request and be permitted to delay fulfilling their service obligation until after they complete a subsequent terminal degree program. Any such requests must be made to the NRC before a student enrolls in a subsequent degree program. If a student enrolls in a subsequent degree program before or without NRC approval, and the NRC does not subsequently approve the request, the NRC will not be held liable for any expenses incurred to dis-enroll, or for failure to otherwise meet the terms of this service obligation. Recipients only incur a service obligation to NRC for funded periods of study.
7. If the student receives no employment offers or does not accept any of the offers received, the student is not relieved of the service obligation, unless, pursuant to this service agreement, the student applies for and receives a waiver from the NRC. Implicit in the waiver request is data or explanation by the student that efforts to secure employment in a nuclear-related field were undertaken. This can be in the form of job searches, referrals, etc. Absent a waiver from the NRC, rejection of one or more job offers could trigger the service agreement obligation.

8. If a recipient voluntarily leaves the employment of an approved employer in a field related to nuclear power during the period of obligated post-academic service; the recipient may immediately become liable to the U.S. Government for repayment of the entire amount of the assistance provided under the scholarship for which the service obligation has not been fulfilled.

9. By accepting this scholarship/fellowship, I agree to provide the NRC with current contact information (address, telephone, email), and employment information, subject to the provisions of the Privacy Act, for as long as I remain under obligated service. This information will be used solely for the purposes of verifying appropriate nuclear related employment in compliance with the service obligation requirements of this service agreement. In accordance with the Privacy Act, providing this information is voluntary; however, failure to do so may result in removal from the scholarship/fellowship program and/or repayment of all scholarship/grant money received. Contact information should be reported to: eduscholar@nrc.gov.

10. By signing this agreement, the recipient certifies that he or she has read this agreement and agrees to all of the obligations it entails.

Scholarship Recipient

Date

Institution Program Coordinator

Date

NRC Office of Human Resources

Date