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

1. GRANT/AGREEMENT NO.	2. MODIFICATION NO.	3. PERIOD OF PERFORMANCE	4. AUTHORITY
NRC-38-08-919	2	FROM: 7/1/2010 TO: 8/31/2011	Pursuant to Section 31b and 141b of the Atomic Energy Act of 1954, as amended

5. TYPE OF AWARD	6. ORGANIZATION TYPE	7. RECIPIENT NAME, ADDRESS, and EMAIL ADDRESS
[X] GRANT [ ] COOPERATIVE AGREEMENT	Public State-Controlled Institution of Higher ED DUNS: 170230239	University of Texas at Austin 101 East 27th Street Suite 4.300 Austin, TX 78712

8. PROJECT TITLE:

Summer Nuclear Engineering Institute at The University of Texas at Austin Focus Area: Nuclear Engineering

9. PROJECT WILL BE CONDUCTED	10. TECHNICAL REPORTS ARE REQUIRED	11. PRINCIPAL INVESTIGATOR(S) NAME, ADDRESS and EMAIL ADDRESS
PER GOVERNMENT'S/RECIPIENT'S PROPOSAL(S) DATED See Program Description AND APPENDIX A-PROJECT GRANT PROVISIONS	[X] PROGRESS AND FINAL [ ] FINAL ONLY [ ] OTHER (Conference Proceedings)	University of Texas at Austin Attn: Erich Schneider Email: eschneider@mail.utexas.edu 512-592-1374

12. NRC PROGRAM OFFICE (NAME and ADDRESS)	13. ACCOUNTING and APPROPRIATION DATA	14. METHOD OF PAYMENT
NRC Attn: Randi Neff Office of Human Resources MS: GW5A6 (301) 492-2301 11545 Rockville Pike Rockville, Maryland 20852	APPN. NO: 31X0200 B&R NO: 0-8415-5C1116 JOB CODE: T8453 BOC NO: 4110 OFFICE ID NO: RFPA: HR-08-919	[ ] ADVANCE BY TREASURY CHECK [ ] REIMBURSEMENT BY TREASURY CHECK [ ] LETTER OF CREDIT [X] OTHER (SPECIFY) Electronic ASAP.gov (See Remarks in Item #20 "Payment Information")

15. NRC OBLIGATION FUNDS		16. TOTAL FUNDING AGREEMENT		
THIS ACTION	$120,000	NRC	$120,000	This action provides funds for Fiscal Year in the amount of See Page Two
PREVIOUS OBLIGATION		RECIPIENT		
TOTAL	$120,000	TOTAL	$120,000	

17. NRC ISSUING OFFICE (NAME, ADDRESS and EMAIL ADDRESS)

U.S. Nuclear Regulatory Commission
Div. of Contracts
Attn: Sheila Bumpass
Mail Stop: TWB-01-B10M
Rockville MD 20852

18.	19. NRC CONTRACTING OFFICER
Signature Not Required	Sheila Bumpass 7/1/10 (Signature) (Date) NAME (TYPED) Sheila Bumpass TITLE Contracting Officer TELEPHONE NO. 301-492-3484

20. PAYMENT INFORMATION

Payment will be made through the Automated Standard Application for Payment (ASAP.gov) unless the recipient has failed to comply with the program objectives, award conditions, Federal reporting requirements or other conditions specified in 2 CFR 215 (OMB Circular A110).

21. Attached is a copy of the "NRC General Provisions for Grants and Cooperative Agreements Awarded to Non-Government Recipients.
Acceptance of these terms and conditions is acknowledged when Federal funds are used on this project.

22. ORDER OF PRECEDENCE

In the event of a conflict between the recipient's proposal and this award, the terms of the Award shall prevail.

23. By this award, the Recipient certifies that payment of any audit-related debt will not reduce the level of performance of any Federal Program.

TEMPLATE - ADM001

SUNSI REVIEW COMPLETE JUL 8 2010

ADM002

ATTACHMENT A - SCHEDULE

A.1 PURPOSE OF GRANT

The purpose of this Grant is to provide support to the "Summer Nuclear Engineering Institute at the University of Texas at Austin" as described in Attachment B entitled "Program Description."

A.2 PERIOD OF GRANT

1. The effective date of this Grant is July 1, 2010. The estimated completion date of this Grant is August 31, 2011.

2. Funds obligated hereunder are available for program expenditures for the estimated period: July 1, 2010 – August 31, 2011.

A. GENERAL

1. Total Estimated NRC Amount:	$120,000
2. Total Obligated Amount:	$120,000
3. Cost-Sharing Amount:	$0
4. Activity Title:	Summer Nuclear Engineering Institute at the University of Texas at Austin
5. NRC Project Officer:	Randi Neff
6. DUNS No.:	170230239

B. SPECIFIC

RFPA No.:	HR-08-919-002
FFS:	N/A
Job Code:	T8453
BOC:	4110
B&R Number:	0-8415-5C1116
Appropriation #:	31X0200
Amount Obligated:	$120,000

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	$90,984.00
Indirect Cost	$29,016.00
Yearly Total	**$120,000.00**

All travel must be in accordance with the University of Texas at Austin 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 $120,000 for one year period.

2. NRC hereby obligates the amount of $120,000 for program expenditures during the period set forth above and in support of the Budget above. The Grantee will be given written notice by the Contracting Officer when additional funds will be added. NRC is not obligated to reimburse the Grantee for the expenditure of amounts in excess of the total obligated amount.

3. Payment shall be made to the Grantee in accordance with procedures set forth in the Automated Standard Application For Payments (ASAP) Procedures set forth below.

Attachment B – Program Description

PROGRAM DESCRIPTION

Summer Nuclear Engineering Institute at The University of Texas at Austin

Background

The first Summer Nuclear Engineering Institute at The University of Texas at Austin, sponsored by the Nuclear Regulatory Commission under an Education Grant awarded in 2008, was held in July 2009. Applications are coming in for the second Institute, to be held in July-August 2010. In view of the success of the inaugural Institute - much of this proposal is devoted to a review of this one-month event and preparations leading to it - we propose its continuation in 2011 and 2012.

We anticipate that the pool of potential candidates for the Institute will continue to grow. Trained nuclear engineers have been in high demand because of the high turnover in the aging nuclear industrial workforce; given the January 2010 quadrupling of the federal loan guarantee program for new nuclear power plants 1, the construction of generation-3 plants will play an even more significant role in the employment dynamics of the industry. The design, engineering, licensing and regulatory work needed to bring these plans to fruition is of pressing concern. Demand for skilled employees in these areas is having a profound impact on the nuclear job market.

Yet a significant majority of these personnel will not have been trained as nuclear engineers. This is consistent with past employment patterns in the industry, where mechanical, electrical and civil engineers have always outnumbered those holding a nuclear engineering degree and will continue to do so. Also, a large majority of entrants to the nuclear industry - exact statistics are impossible to obtain - will have been trained in a university environment that does not include an operating nuclear reactor. This holds true for nuclear engineering degree holders as well as the rest.

The balance of this proposal is structured as follows. Following an overview that reviews the Institute's objectives, we provide a review of the 2009 Institute. Parts of this section are excerpted from the annual report for the inaugural year of the Institute provided to the NRC; the full annual may be found in Attachment C: Results from Past NRC Funding. Next, the status of preparations for the 2010 Institute as of January 2010 is reviewed. We then address the curriculum and mechanics of future Institutes, highlighting points of departure from the 2009 and 2010 Institutes taken in response to student evaluations of the 2009 Institute. Finally, sustainability, criteria for success and deliverables are discussed in the context of the long-term benefits of the continued success of the Institute to the industry.

Overview: The Institute

The primary technical objective of the Institute is to impart upon future nuclear professionals, including those from non-nuclear academic disciplines, the practical skills they will need when working in proximity to a nuclear reactor or in an environment where radiological hazards are present. The 1 Megawatt TRIGA research reactor at UT -Austin will therefore play a central role in the Institute curriculum, as will the health physics instrumentation maintained at the UT - Austin Nuclear Engineering Teaching Laboratory (NETL). The strong practical and experimental component of the Institute curriculum will be complemented by classroom lectures providing a sound grounding in the fundamentals of health physics, nuclear reactor physics and nuclear systems engineering.

Our broader objective is to attract talented young people to choose careers in our industry Activities such as a nuclear power plant tour and an in-class briefing of industrial, regulatory. national laboratory and academic career options further this goal. While success in this area is difficult to quantify, as discussed in the review of the 2009 Institute, student evaluation feedback indicates that we have been successful.

Our four-week curriculum continues to revolve around experiments that use the TRIGA reactor, offering the students an excellent opportunity to utilize state of the art nuclear and health physics instrumentation, learn the basics about reactor engineering and perform reactor experiments. The curriculum is divided into two two-week modules, both taught with the supposition that the students have little background beyond sophomore-level science and engineering skills.

The first module, Health Physics: Theoretical Aspects, Applications and Instrumentation will offer half-day lectures, followed by practical hands-on experience with a variety of portable and laboratory radiation instruments. Half of each day is devoted to practical hands-on exercises, which will cover instrument calibration collection of survey and dosimetry measurements.

The second two week module, Nuclear Reactor Engineering, introduces students to the basic physical and engineering concepts of nuclear reactor design and operation. The lectures associated with this module present elementary reactor physics and engineering aspects of reactor operation. Students gain an understanding of thermodynamics, core design, and reactor control through both the lectures and afternoon laboratories utilizing the TRIGA reactor. In 2010, this module is being enhanced by lectures covering reactor coolant systems, heat exchangers, pumps and thermoelectric power conversion presented by Dr. da Silva.

We will enroll twelve students in the 2010 Institute, and we propose the same number of students in 2011 and 2012. Institute graduates will continue to receive room and board, a stipend and six UT -Austin course credits that may be freely transferred to their home institution. A Saturday student field trip to one of the two commercial nuclear power plants (NPPs) in Texas, Comanche Peak and South Texas Project, will remain an element of the curriculum. UT -Austin students have been visiting these plants for many years and the Co-PIs maintain a strong relationship with the community relations and recruitment staff at both plants.

Review of the 2009 Institute

Please note that reviewers wishing to view the appendices mentioned in this section may find them in Attachment C of this package, Results from Past NRC Funding.

Preparations

The 2009 Institute took place over the period July 5-31, 2009, but many preparatory activities were needed to make the offering a success. Our website, http://snei.engr.utexas.edu, went online on schedule in October 2008. The professionally-designed website was laid out by the Faculty Innovation Center at the UT Cockrell School of Engineering at a cost of $1500. It features over 15 pages of content, an online application system, and a Frequently Asked Questions section. We encourage the reviewers to visit the site. (Note: the site has been updated for the 2010 Institute).

We conducted recruiting visits to two schools, Texas Tech University and The University of Texas of the Permian Basin, and we actively recruited at Texas Southern University as well as the Big-12 schools. The latter activity was facilitated by the Big-12 Initiative. The publicity office of the Initiative assisted us in distributing information regarding the Institute to department heads as well as students. Our recruitment flyer for the 2009 Institute is shown in Appendix A; it was also prepared by the Faculty Innovation center; the cost of services rendered was $500. A new flyer for the 2010 Institute is displayed later in this narrative.

Also in accordance with the schedule laid out in our award, we published a paper describing the scope and objectives of the Institute to the 2009 American Society for Engineering Education (ASEE) annual conference in Austin in June, 2009. Presenting at the 2009 ASEE conference enabled us to promote the Institute to a large number of faculty from schools we would not otherwise reach with our direct advertising. It also secured publicity and notoriety for future Institutes. The full paper2 can be found at www.asee.org under publications -> conference proceedings -> search for "Summer Nuclear Engineering Institute for Texas and Big-12 Undergraduates."

In accordance with the scope of our award, our students were recruited from Texas institutions not offering undergraduate NE programs as well as Big 12 schools lacking research reactors. However, we have received inquiries from outside our targeted recruitment pool, for instance from the University of Washington, the University of Colorado and Florida Memorial University. Due to the large number of inquiries we have received from schools outside our targeted pool, we considered students from outside the targeted recruitment group on an equal footing when making admission decisions. We adhered to the policy stated on our website: students must have a 3.0 / 4.0 GPA to be considered for admission, unless special circumstances (e.g. a strong recommendation from a faculty member) intervene. This proved to be the case for one student.

Other activities during the September 2008 - June 2009 period were largely logistical in nature:

• Negotiations were undertaken with the UT -Austin Extension to clarify its role in registering students for the SNEI. These produced a memorandum of understanding between the Extension and our program (Appendix D). The Extension agreed to provide grade reporting and enrollment services; to achieve this, we had to certify the courses for which the students would receive credit through the Extension. We filed two topic profiles with the Extension (Appendix C) along with a more detailed outline for the courses (Appendix E).

• A structure for registering the students to receive UT credit in two three credit Mechanical Engineering undergraduate project classes was devised. Since the Nuclear and Radiation Engineering Program resides within the mechanical engineering department, all of our classes carry the mechanical engineering label. The courses counted as upper-division technical electives, and none of the students have had trouble transferring them to their home institutions.

• Negotiations were concluded with University Housing and Food Services to lodge the students in the San Jacinto dormitory for the month of July. Parking permits were also obtained for those students who drove to Austin. The cost for five weeks' lodging was $1249 (including partial meal plan valued at $300). See Appendix I for the letter of agreement (noting that the terms quoted in the letter were per-student costs for a full 100week summer term, and our students stayed for only half the term). This cost was higher than we estimated in our proposal by $349 per student, and this has been accounted for in the attached budget.

• Applications were reviewed and admission decisions were made for the most part in February and March. Twenty-one students from eleven colleges and universities applied. Seventeen were accepted and fifteen chose to attend. Applications consisted of a transcript, one letter of reference, and a personal statement of interest in the Institute (short essay format) ..

• A classroom was prepared in the Annex building at NETL. The room was fitted out with an electronic board and projector expressly for the SNEI; this measure was necessary since the NETL does not have classrooms of its own and it was judged impractical for the students to attend lectures in the morning on main campus, then drive to NETL for the afternoon laboratories.

• A teaching assistant, Brian Parks, was selected. Brian was paid as a graduate research assistant for the summer (as per a stipulated budget item) and contributed strongly to running the laboratories, grading homeworks, and providing an extra contact mechanism for the students.

• A website for the course was established at the University's Blackboard server, http://blackboard.utexas.edu.This site was used heavily throughout the Institute as all lectures were delivered in PowerPoint format. Each day's lecture slides, along with laboratory assignments and supplemental readings, were posted on the site. The students were provided with UT network access and electronic IDs so that they could view the slides in class or in their dorms.

• Travel arrangements were made. Twelve of the fifteen students drove to Austin and were reimbursed at the state of Texas official rate for mileage traveled. Tickets for students using air travel were arranged by administrative staff at NETL. All reimbursements were processed before the conclusion of the Institute and the funds added to the students' stipend checks.

• Arrangements were made with the Environmental Health and Safety Office at UT to offer a special session of Radiation Worker training to the students. This session enabled the students to become certified to access the reactor bay area of NETL without requiring an escort.

• Copies of the text "Fundamentals of Nuclear Science and Engineering" by Shultis and Faw were ordered for each student.

The Institute

The fifteen participants in the 2009 SNEI are listed in the table below. Six of the fifteen students are members of underrepresented groups; three are female. See Appendix B for pictures of the students in action; more are available at http://snei.enqr.utexas.edu.

Last Name	First Name	School	Major	Year
CHRISTIAN	MICHAEL	Alvin Community College	Undeclared	Freshman
DESTA	BIRUK	Texas Southern Univ	Health Physics	Post-BS
EVERETT	SAMANIHA	Texas Southern Univ	Physics	Sophomore
FUINI	MATIHEW	North Carolina A& T State	Mech Engr	Senior
GEORGETOWN	BRANDON	Texas Southern Univ	Physics/Math	Junior
GIBILISCO	MARK	Univ of Nebraska	Electrical Engr	Junior
LINNICK	CHRISTOPHER	Kansas Stale Univ	Mech and Nucl Engr	Junior
OLVERA	JUAN	Angelo State Univ	Applied Physics	Junior
RANATUNGA	ISURA	Univ of Texas Arlington	Electrical Engr	Sophomore
SILLER	VICTOR	Angelo State Univ	Applied Physics	Junior
SPALSBURY	STEVEN	Kansas State Univ	Mech and Nucl Engr	Senior
SYMISTER	CHANIKA	Florida Memorial Univ	Biology	Junior
TRUDGEN	MARK	Oklahoma Christian Univ	Mech Engr	Sophomore
TYBURSKI	ELIZABEIH	Oklahoma State Univ	Chem Engr	Sophomore
WOOD	MARK	Oklahoma Christian Univ	Math/CS	Junior

The students arrived in Austin on July 5, were registered and received UT -Austin identification cards on the morning of July 6, and were provided with the Radiation Worker training on the afternoon of July 6. The following two weeks were devoted to the first topic of the Institute, Health Physics and Instrumentation (instructors: S. Landsberger, D. Hearnsberger). See Appendices E and F for further details of the curriculum and course schedule as well as information on how grades were determined. Excerpts from the text "Introduction to Health Physics" by Cember supplemented the Shultis and Faw text.

Lectures were held in the morning, a one and a half hour break was provided for lunch, and laboratories ran from 1 PM until generally around 4 PM. The students would typically stay at NETL until just before dinner to finish their lab reports, then complete their written homework later in the evening. Given the availability of HP instrumentation equipment stations, students were broken up into four teams and rotated through the eight laboratories over the course of two weeks. Homework assignments were due every other day, two exams were given, anc students submitted a report for each laboratory.

The second two-week module, Reactor Engineering and Reactor Laboratory, was taught from July 19-31 (instructors: K. Foltz-Biegalski, E. Schneider, S. Biegalski). See Appendices E and G for curriculum and schedule. The final examination for this module is included as Appendix H. The morning lecture / afternoon laboratory format with every-other-day homework and daily lab write-ups was again followed; this time, since almost all of the laboratories were centered around the UT TRIGA reactor the students conducted them as one large group.

A tour of the Comanche Peak power station was held on Wednesday, July 22. The group departed Austin at 6:30 AM and toured the reactor from 10 AM until shortly after noon. Three engineers from the Comanche Peak staff broke the fifteen students and two instructors which accompanied them into three groups and provided a tour that focused on the secondary loop and turbines (since a 'shutdown did not overlap with the period of the institute, it was n01 possible to tour inside of containment).

A graduation ceremony with certificates and farewell barbeque lunch was held after the Reactor Engineering final exam on July 31. Instructors logged grades during the following week, the University Extension interfaced between the teaching staff and the registrar, and the students were provided with information concerning the procedure for transferring the six UT course

credits to their schools.

Evaluation and Conclusion

The students filled out an electronic evaluation form immediately following the July 31 final exam. The results were collated by Dana Judson, the administrative assistant at NETL. The questions on the evaluation form were defined in the proposal document; a complete collation of student responses is located in Appendix J.

Judging by student responses, the Institute was extremely successful:

• Fifteen out of fifteen students answered "5-definitely" to the following question:

Overall, do you feel that participation in the Institute has been a worthwhile experience? (1 - not really, 3 - somewhat, 5 - definitely)?

• A primary objective of the Institute was to interest students in graduate study or a career in a nuclear-related field. The following are responses to the question Has your experience affected the likelihood that you will pursue a career in a nuclear-related industry?

o It gave me ideas on the many opportunities this field' has to offer,

o Yes, I plan to make a career out of it.

o Yes, this experience has allowed me to get a glimpse of the working conditions in a nuclear power plant. It has also allowed me to get a glimpse of what to expect if I do pursue a career in this field.

o This experience has interested me in the field.

o I am just as convinced (95%) that I will work in the nuclear industry as I was when I came in.

o I had thought about a career in the nuclear field before (power) but after this institute I am much more interested.

o I think it would be of great benefit to pursue additional training in nuclear engineering once I obtain my main goal of biomedical engineering.

o The institute has showed me that I really like Health Physics and just may pursue a career as a Health Physicist.

Other feedback mentioned by multiple students included a suggestion to extend the duration of the Institute to lessen the intensity of the workload and a desire to experience a more in-depth tour of a power plant than what Comanche Peak offered. This year we plan to ask Comanche Peak to include a briefing on employment at the power plant in the tour, as they have done for us in the past. Note: we have decided not to extend the institute because of the negative effect it would have on the budget: housing costs would then have to be paid for the full summer, increasing the project cost by around $16,000. Students were also interested in a more extensive treatment of thermal hydraulic aspects of nuclear plant operation; this is included as a separate three-day topic for the 2010 SNEI. Reviewers are strongly encouraged to read Appendix J as the feedback from the students is the most effective measure of the Institute.

The 2010 Institute - Status as of January 2010

The 2010 Institute is off to a strong start. Our website, http://snei.engr.utexas.edu, was redesigned and the online application process was simplified as per student evaluation feedback. It went online on schedule in October 2009; Figure 1 shows the website welcome page. Our 2010 recruitment flyer is shown on the final page of this narrative (Figure 2).

Field Trip to Nuclear Power Plant Institute: Weeks 3 and 4, Reactor Engineering Graduation Social Event, Students De Final Re ort Delivered to NRC

The course materials prepared for the first Institute under our current NRC grant have enabled us to offer the second Institute at UT -Austin at less expense per student than was the case for the inaugural institute. As we brought a new faculty member, Dr. da Silva, into the 2010 Institute, his preparation time was provided in the 2010 budget. In 2011, this expense will not be necessary so that the cost per student in the proposed budget has again declined. Active recruitment funding for institutes held in 2011 and beyond has also been reduced as we have observed substantial interest in the 2010 Institute via reputation as well as word of mouth from 2009 graduates and cognizant faculty. We propose that one annual recruiting trip be taken to an institution serving disadvantaged and underrepresented populations.

Curriculum and Mechanics

In this section we briefly review the curriculum for two intensive short courses that comprise the Institute, Health Physics and Nuclear Reactor Engineering. We then summarize the logistical and mechanical tasks that bring the Institute to fruition and ensure positive student experiences. Note that all lectures are recorded in our video classroom and lecture materials are available to the students as PowerPoint presentations on the Blackboard website.

Please note that we have refocused the Nuclear Reactor Engineering module toward thermal systems design and operations. Selected portions of the reactor physics component of this module have been removed. Student evaluations in 2009 indicated that more in-depth coverage of thermal systems would be valuable, and items such as solution of the neutron diffusion equation and mathematical treatment of reactor kinetics were suggested as areas in which coverage could be reduced. We concur that these topics are of relatively lower utility to BS-level students entering employment in the field, and we have made the appropriate changes to the curriculum. Students will still gain hands-on experience with neutronic aspects of reactor operations through the laboratory component of the module.

The remainder of this section provides a top-level summary of the curricula for the two two-week modules. Since a good deal of the content is similar to that of the current Institute, we refer readers to http://sneLengr.utexas.edu for a detailed listing of the specific topics to be covered each day in class.

Curriculum: Health Physics

The first two week module, Health Physics: Theoretical Aspects and Applications and Health Physics -Instrumentation Laboratory, is taught with the supposition that the undergraduate students have little background in this area.

The two week course in health physics is divided into two distinct fractions. The morning

session incorporates three fifty minute lectures on the basics of health physics. There is a total of four lecture days each week with a grand total of 24 lectures. At the end of each week there will be a short exam.

Theoretical Aspects and Applications

The Health Physics Instrumentation Module offers half-day lectures where students learn the fundamentals of nuclear physics, counting, detector operations and shielding. The lectures include practical hands-on demonstrations of a variety of portable and laboratory radiation instruments; the morning lecture component of the module provides the theoretical basis for the afternoon experiments. At the end of each week there is a short exam.

Health Physics Instrumentation Laboratory

The Nuclear Engineering Teaching Lab has all new state-of-the-art HP equipment. The students are broken up into groups of 3 per station. Each student is required to write 3 complete lab reports and only do the data analysis for the other labs. Half of each day will be devoted to practical hands-on exercises, which will cover instrument calibration and collection of survey and dosimetry measurements.

Curriculum: Nuclear Reactor Engineering

The second two week module, Nuclear Reactor Engineering, is taught under the assumption that the students have no special background knowledge of reactors. Therefore, the students are exposed to the basic physical and engineering concepts of nuclear reactor design and operation with only the appropriate university-level mathematics background assumed.

The morning session, Theoretical Aspects of Reactor Engineering, incorporates two one hook and fifteen minute lectures separated by a fifteen minute break, with a short exam at the conclusion of Week 1 and a longer exam at the end of the module. The afternoon Reactor Laboratory features eight hands-on experiments using the UT TRIGA Mark II reactor. Table 4 shows the topics to be covered each day in the proposed 2011 and 2012 Institutes.

Mechanics

A number of mechanical and infrastructural arrangements support the Institute to be a success. These include publicity and recruitment activities, logistical groundwork to create the class, evaluate the students and award them course credit, and measures to ensure that the students enjoy a good quality of life while they are taking part in the Institute. We review them here further details can be found in the budget narrative.

Admission to the Institute is prestigious and rewarding. Therefore, to ensure that the quality 01 the applications remain high, we will continue to offer a generous support package. Each enrollee will receive room and board in a campus dormitory via University Housing Services. The cost associated with this item has already been negotiated and is included in the budget. In addition, enrollees will be paid a stipend of $1000 and textbook allowance of $200. In practice, we use part of this allowance to purchase the Shultis and Faw textbook3 for the students; it will continue to be our primary text. The unspent portion of the allowance augments the students' stipends. Finally, the students will be reimbursed for travel expenses of up to $500. This competitive package is publicized in the recruitment materials.

Students are enrolled by the University Extension in two three-credit UT-Austin courses created to serve the Institute. The courses are listed under the accredited Mechanical Engineering Department course offerings within the Cockrell School of Engineering. We are requesting continued funding to compensate the University Extension for the services it is providing. The Extension does not pay student stipends; instead, the students are appointed and paid by the Nuclear Engineering Teaching Laboratory.

Since the teaching burden on the faculty during the institute is considerable, in 2011 and 201 L one graduate student will continue to be supported full-time over the summer to provide grading~ support and fill the role of teaching assistant. The graduate student will also act as a co· instructor during the afternoon experimental sessions.

The four investigators will assume roughly equal shares of the teaching load. The Health Physics module will be instructed by Dr. Landsberger with several lectures covered by Dr. Schneider. The Reactor Engineering lectures will be taught by Drs. Schneider and da Silva while the laboratories will be the responsibility of Dr. Biegalski. Table 5 summarizes the duties of the respective Co-PIs.

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 CRF 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 2CFR 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 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 curriculum development 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:

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

§ 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 quarterly basis, for the periods ending 3/31, 6/30, 9/30 and 12/31, or any portion thereof, unless otherwise specified in a special award condition. Reports are due no later than 30 days following the end of each reporting period. A final SF-425 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 herby 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 form 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."