Part I - Overview Information

Nuclear Regulatory Commission (http://www.nrc.gov)

Title:
U.S. Nuclear Regulatory Commission Funding Opportunity Announcement (FOA), the University Nuclear Leadership Program (formerly the Integrated University Program), Research and Development Grant, Fiscal Year (FY) 2021

Announcement Type:
New

Announcement of Opportunity Number:
31310021K0002

Required Federal Citations:

Program Authority: Section 31b and 141b of the Atomic Energy Act of 1954, as amended.

Catalog of Federal Domestic Assistance Number:
CFDA #: 77.008

Key Dates:
Release/Posted Date: **03-15-2021**
Application Due Date: **05-14-2021**
Earliest Anticipated Start Date: **09-30-2021**

The recipient must submit applications in response to this FOA for Federal assistance electronically through Grants.gov (http://www.grants.gov) using the SF-424 forms and the Application Guide included with this announcement in Grants.gov/Apply for Grants (hereafter called Grants.gov/Apply).

The recipient's application must be successfully received by Grants.gov no later than 5:00 p.m., ET on 05-14-2021. If the recipient needs information on alternate means of submitting its application, see Section IV.3.B.1.

Electronic submissions of applications through Grants.Gov is preferred. Therefore, paper applications will not be accepted, unless extenuating circumstances are documented.

Applications that are incomplete, non-compliant and/or nonresponsive will not be reviewed.

Additional Overview Content

Executive Summary:
The U.S. Nuclear Regulatory Commission (NRC) is an independent agency, established by the Atomic Energy Act of 1954, as amended, tasked with licensing and regulating the Nation's

civilian use of byproduct, source, and special nuclear material to ensure adequate protection of public health and safety, to promote the common defense and security, and to protect the environment.

Type of Award:
It is anticipated that this FOA will result in the award of multiple grants.

Funds Available and Anticipated Number or Awards:
The estimated budget for this program is $6,000,000.00. The NRC anticipates that there may be up to 12 grants awarded as a result of this FOA. The number of awards depends on the number, quality, duration and costs of the applications received.

Budget and Project Period:
This is a three (3) year program with no extensions. Research and development funds may be requested up to $500,000.00 total costs (direct costs and facilities and administrative costs) for the project period.

Eligible Institutions:
See Section III, 1. for eligible institutions. Please note, in the context of this document, the term "institution" is used synonymously with the term "recipient", however in the case of a teaming arrangement or consortium, only the lead university is the recipient.

Eligible Principal Investigators (PIs):
Individuals with the skills, knowledge, and resources necessary to conduct the proposed project are invited to work with their institution/organization to develop an application. A Principal Investigator may submit only one (1) application in response to this announcement. A PI may not be a Co-PI on another application.

Number of Applications:
An applicant/institution may submit no more than two (2) applications in response to this announcement.

Continuation Applications:
Not applicable.

Application Materials:
See Section IV for application materials.

Hearing Impaired:
Telecommunications for the hearing impaired are available at: TTY 240-428-3217.

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Part II - Full Text of Announcement

Section I. Funding Opportunity Description

1. Program Objectives

The program provides funding to support research and development for nuclear science, engineering, technology, and related disciplines to develop a workforce capable of supporting the design, construction, operation, and regulation of nuclear facilities and the safe handling of nuclear materials.

More specifically, the program shall be used to provide financial assistance for research and development projects relevant to the programmatic mission of the NRC referenced above, with an emphasis on providing financial assistance with respect to research, development, demonstration, and commercial application activities relevant to civilian advanced nuclear reactors, including, but not limited to, relevant fuel cycle technologies, advanced construction, manufacturing, and fabrication methods.

Of particular interest are projects aimed at:

- Aging/degradation of nuclear plant systems, structures, and components.
- Digital engineering/analytics, advanced sensors and controls for nuclear applications.
- Advanced materials and manufacturing for nuclear applications.
- Advanced construction techniques for nuclear builds.
- Evaluation of technical gaps and major uncertainties related to risk-informed decision-making for areas such as complex all-hazard risk models, dynamic PRAs, and PRAs for advanced reactors.
- Human and organizational factors and human reliability analysis for advanced nuclear applications, including improved models for dependency, consideration of organizational factors, and dynamic methods.
- Characterization of low frequency, high consequence natural or industrial hazards for advanced nuclear applications.
- Characterization, handling, fabrication, transportation, storage, or disposal of fresh and spent nuclear fuel for nuclear power plants (including the various advanced reactor designs that are currently under development).

- Analyses, data and evaluations that will support an understanding of the safety, technical gaps and major uncertainties for (1) operating, small modular and advanced reactor designs with emphasis in the areas of fuel performance, fuel fragmentation relocation and disposal, natural circulation, boron dilution, neutronics, source term analysis, severe accident analysis and (2) fuel cycle technologies, with emphasis on experimental test and analytical model data to help validate the NRC's scientific computer codes and ability to assess application of these technologies.
- Advanced technology approaches (e.g., data and text analytics and artificial intelligence) and applications (e.g., data mining, risk communication) that enhance regulatory decision making. Some specific areas of focus could be incorporating equipment failure trends, probabilistic risk assessment, and risk-informed decision-making in licensing, inspection, and other regulatory activities.

Although the FOA identifies many of the NRCs R&D priorities, the NRC will strive to award projects that cover multiple project areas specified above. **Your application should emphasize the technical area(s) proposed under this project.**

See Section VIII, Other Information, for policies related to this announcement.

Section II. Award Information

1. Cost Sharing or Matching

Cost sharing or matching funds is not required. However, institutions are encouraged to cost share or match NRC funding (non-Federal funds) to enhance the benefits of the NRC grant. For purposes of this announcement, cost sharing or matching means additional contributions (either financial or in-kind) that enhance the overall goals of the research grant program. Cost sharing or matching may be used to build infrastructure in nuclear and related disciplines and may include a variety of areas ranging from support of students to facility improvements or expansion. A written agreement or letter, within the last 12 months, with a cost sharing or matching commitment is required at the time the application is submitted. See 2 CFR 200.306 for additional information.

If providing cost sharing or matching funds, institutions must include the type and value of support and describe how the contribution will enhance the program. *Academic year faculty release time is not a valid "in kind" cost share/matching contribution.

Cost sharing or matching funds is NOT a scored review criterion.

See Section III.2.B, for citizenship requirements.

See Section VIII., Other Information, for policies related to this announcement.

Section III. Eligibility Information

1. Eligible Institutions

The NRC strongly encourages diversifying its grants through effective partnerships with Minority Serving Institutions, which may receive funding support from this program.

However, no funds under this announcement are reserved or otherwise set-aside for any specific entity type.

Institutional representatives may submit an application(s) if the institution has any of the following characteristics:

- Public/State Controlled Institutions of Higher Education
- Private Institutions of Higher Education
- Hispanic-Serving Institutions (HSIs)
- Historically Black Colleges and Universities (HBCUs)
- Tribally Controlled Colleges and Universities (TCCUs)
- Alaska Native and Native Hawaiian Serving Institutions
- Predominately Black Institutions (PBIs)
- Asian American and Native American Pacific Islander Serving Institutions (AAPIs)

Institutional representatives may submit an application(s) if the institution is a regionally accredited U.S. public or private institution of higher education, as defined in Section 102 of the Higher Education Act of 1965 (20 USC 1002). Affiliates that manage externally funded programs for Institutions of Higher Education are eligible to submit applications for this FOA on behalf of the institution; however, award funds are only provided to the institution's project.

Non-domestic (non-U.S.) Entities (Foreign Institutions) are not eligible to apply.

Federal agencies, national laboratories, and Federally funded research and development centers are not eligible to receive Federal assistance under this announcement. Individuals and other entities may not apply directly to the NRC for these grants.

2. Eligibility Requirements

2.A. Eligible Individuals

Any individual(s) with the skills, knowledge, and resources necessary to carry out the proposed research as the PI is invited to work with his/her organization to develop an application for support. Individuals from underrepresented racial and ethnic groups as well as individuals with disabilities are always encouraged to apply for NRC support.

More than one PI (i.e., multiple PIs), may be designated on the application for projects that require a "team science" approach and therefore clearly do not fit the single-PI model.

The decision of whether to apply for a grant with a single PI or multiple PIs grant is the responsibility of the investigators and applicant organizations and should be determined by the scientific goals of the project. Applications for grants with multiple PIs will require additional information, as outlined in the instructions below. When considering the multiple PI option, please be aware that the structure and governance of the PI leadership team as well as the knowledge, skills and experience of the individual PIs will be factored into the assessment of the overall scientific merit of the application. Multiple PIs on a project share the authority and responsibility for leading and directing the project, intellectually and logistically. Each PI is responsible and accountable to the grantee organization, or, as appropriate, to a collaborating organization, for the proper conduct of the project or program, including the submission of required reports.

Although the PIs write the grant application and are responsible for conducting and supervising the research, the actual applicant is the research institution/organization. PIs may submit only one application in response to this announcement.

2.B. Citizenship Requirement

All students and supported faculty must be United States citizens or a noncitizen national of the United States or have been lawfully admitted to the United States for permanent residence (i.e., in possession of a currently valid Alien Registration Receipt Card I-551, or other legal verification of such status) **for the full term of the grant** . Noncitizen nationals are persons born in outlying possessions of the United States (i.e., American Samoa and Swains Island). Students must have full-time status at the recipient institution. Individuals on temporary or student visas, as well as refugees and asylees, are not eligible.

COMPLIANCE WITH U.S. IMMIGRATION LAWS AND REGULATIONS
Grant recipients are responsible to ensure that their foreign personnel (including PIs or Co-PIs) are not in violation of United States immigration laws and regulations, including employment authorization documents and visa requirements. Each recipient of funds under this award must be lawfully admitted for permanent residence **for the duration of the grant period**, as evidenced by Permanent Resident Form I-551 (Green Card) or must present other evidence from the U.S. Department of Homeland Security/U.S. Citizenship and Immigration Services that employment will not affect his/her immigration status. The U.S. Citizenship and Immigration Services provides information to grant recipients to help them understand the employment eligibility verification process for non-US citizens. This information can be found on their website, http://www.uscis.gov/portal/site/uscis.

The NRC reserves the right to take any number of administrative actions (e.g., disallow costs, termination) should the recipient violate their responsibility under this clause.

Applicants shall include a certification statement regarding compliance with the Citizenship Requirement of this announcement. For non-citizen PIs/researchers, documentation of lawful admittance to the United States shall be provided in the grant application.

Section IV. Application and Submission Information

The institution may download an SF424 Grant Application Package and instructions for completing the SF424 forms for this FOA by linking to http://www.grants.gov/web/grants/applicants/apply-for-grants.html and following the directions provided on that Web site. Institutions must complete a one-time registration at Grants.gov (http://www.grants.gov/web/grants/applicants/organization-registration.html).

If the institution has questions regarding Grants.gov registration, refer to:

Grants.gov
- Contact Center Phone: 800-518-4726
  Hours of Operation: 24 hours a day, 7 days a week. Closed on Federal holidays (see Office of Personnel Management Federal Holidays).
- Email Support: Support@grants.gov

The NRC requires all prospective awardees to be registered in the System for Award Management (SAM) database prior to award, during performance, and through the end of the project period. The institution should allow processing time of at least 48 hours, when registering with SAM. If the institution is not currently registered, the NRC recommends that it consider registering immediately to avoid delays. The institution may obtain registration information at: http://www.sam.gov.

1. Request Application Information

Applicants must download the SF-424 application forms and instructions for this FOA through Grants.gov/Apply.

2. Application Forms and Content

The institution prepares its application using the SF-424 application form. Both the application form and instructions for completing it can be downloaded from http://www.grants.gov/web/grants/applicants/apply-for-grants.html.

The SF-424 application has several components. An institution's application is complete only if it includes the following components:

Required Components:
SF-424: Application for Federal Assistance - CFDA Number: 77.008
SF-424A: Budget Information - complete Sections A, B, C, D, E and F
Certificate Regarding Lobbying Form
SF-LLL: Disclosure of Lobbying Activities, if applicable

Allowable Costs: Allowable costs must be consistent with 2 CFR Part 200, Subpart E—COST PRINCIPLES, be well documented and fully justified for the activities proposed. These costs include but are not limited to the following: materials, supplies, travel to professional meetings, support to defray student participation expenses, such as student compensation (when appropriate) and other student costs (e.g., fees, books, tuition and lab fees) for no more than the amounts specified in the section entitled "Budget and Project Period". The recipient must provide documentation of tuition rates, if included in the application. Grant funds may not be used to supplant funds otherwise available at the applicant institution. It is recommended that the recipient consult NRC contacts identified in Section VII, if there are any questions regarding allowable costs.

Personnel: The Principal Investigator will be solely responsible for planning, directing, and executing the proposed project. Individuals participating in the design and implementation of the grant may request salary and fringe benefits appropriate for the person months devoted to the program. These expenses must be itemized in Sections A and B, as appropriate, of the SF 424A Budget page. Salaries requested may not exceed the levels commensurate with the institution's policy for similar positions. Limited administrative and clerical salary costs associated distinctly with the program, that are not normally provided by the applicant organization, may be direct charges to the grant only when specifically identified and adequately justified.

Graduate students may be included on applications. Graduate students should not be listed as principal investigators, co-principal investigators, or senior personnel. Further, their

compensation should not be listed under Personnel and should be listed separately under Other Expenses.

Fringe Benefits
The recipient must provide a copy of the applicable fringe benefit rates. A description of how the cost was computed is required. Provide an explanation for rate changes or escalation, if any.

Travel
The recipient must provide a detailed cost breakdown for travel cost. Cost needs to be itemized. Estimate the cost of all travel for each trip by destination, number of people and days, air fare, hotel, per diem, car rental, etc.

Equipment
The recipient must provide an itemized list of equipment showing the cost for each item and an explanation for why the equipment is needed. Proposals requesting to purchase equipment must include equipment quotes or vendor agreements.

Supplies
The recipient must provide an itemized list of supplies which includes the cost and quantity per item. A basis for developing the cost estimate (vendor quotes, invoice prices, purchase order history, etc.) must be included.

Other Direct Cost
This section of the cost proposal includes all other directly related costs required in support of the program. A description for each cost is required along with how the cost was computed. A basis for developing the cost estimate (vendor quotes, invoice prices, purchase order history, etc.) must be included.

Indirect Cost/Facilities and Administrative (F&A) Costs
A copy of the recipient's current rate agreement is required in the application with the budget justification. Applicants will use their negotiated indirect rate agreements. F&A will be allowed in accordance with 2 CFR § 200.306 & 2 CFR § 200.414.

Other Program-Related Expenses: Consultant costs, equipment, supplies, travel for key persons, and other program-related expenses **must be justified** as specifically required by the proposed program and must not duplicate items generally available for educational programs at the applicant institution. **Travel/virtual participation to the NRC to present research results and/or attend the NRC's Annual Regulatory Information Conference (RIC) is an allowable expense.** These expenses must be itemized, as appropriate, in the SF424A object class categories and fully documented in the budget justification. Committed Cost Sharing/Matching becomes an official part of the budget and should be documented on the SF424A and in the proposed budget justification.

Recipient Commitment and Responsibilities: The recipient must demonstrate a commitment to support the program objectives of this FOA. The PI and the recipient institution are expected to have or to develop an administrative structure that enables faculty, academic administrators, and others involved in the project to interact productively during the award period. In a cooperative or partnership arrangement the recipient receiving the NRC grant is responsible for all support provided under the grant.

Applications Involving Multiple Institutions: When multiple institutions are involved in a cooperative or partnership arrangement, one institution must be designated as the prime institution and funding for the other institution(s) must be requested via a subcontract to be administered by the prime institution. The prime institution should submit its budget using the SF-424A Budget component, including the subcontract(s) total amount. Contractual costs for support services are occasionally sufficiently high to warrant a categorical breakdown of costs. When this is the case, provide detailed information as part of the budget narrative. Letters of commitment between multiple institutions, signed by their respective authorized organization representatives, are required as part of the application.

All other institutions (subcontractors) should complete their individual SF-424A budget forms attached separately, and information concerning the consortium/subcontract budget must be provided in their budget narrative.

3. Submission Dates and Times

See Section IV.3.A. for details.

3. A. Submission and Anticipated Start Dates

Release/Posted Date: **03-15-2021**
Application Due Date: **05-14-2021**
Earliest Anticipated Start Date: **09-30-2021**

3.A.1 Application Content

The recipient must download a grant application package from http://www.grants.gov/web/grants/applicants/download-application-package.html

Applications that are incomplete, non-compliant and/or nonresponsive will not be reviewed.

Required Elements for Applications

A. Format:

Font Size, Style, and Color

- **11 point, Arial, black color** (A Symbol font may be used to insert Greek letters or special characters.) This is a requirement for all pages included in the document, i.e., table of contents, references, etc.

Page Size and Margins

- Use standard paper size (8 ½" x 11").
- Use one-inch margins (top, bottom, left, and right).
- The NRC requires all text attachments to the SF424 application forms to be submitted as PDF files. Adobe PDF format is preferred.

Footer

- Each page should include a page number and Principal Investigator's last name in

the bottom right-hand corner.

Attachments

- The NRC requires all text attachments to the SF424 application forms to be submitted as separate individual PDF files. Adobe PDF format is preferred.

Applications that are incomplete, non-compliant and/or nonresponsive will not be reviewed.

B. Executive Summary* (half-page maximum):

Describe the proposed project's essential elements.

- Descriptive title of proposed project: NOTE: The applicant should describe its program as the University's program and not the NRC's program.
- Name, address, email address and telephone number of the PI(s).
- Name(s), address, email address and affiliations of other investigator/collaborative personnel who will contribute significantly to the project.
- The project's total funding request.
- Concise statement of the project's objectives and benefits.

Applications that are incomplete, non-compliant and/or nonresponsive will not be reviewed.

C. Project Description:

Applications must include and clearly identify the following elements in the Project Description section:

1. State the management structure and the capability for administering the program.
2. Identify the evaluation plan that will provide information on the effectiveness of the project.
3. State any arrangements with other non-Federal entities that provide additional support, usually in the form of cost sharing or matching to the goals of this project. A written agreement or letter is required from the source of the matching funds.

The project description (**which is not the same as the evaluation criteria in Section V.1**) is limited to five (5*) pages or less, including text, tables, and visual materials (e.g., charts, graphs, maps, photographs). The page limit does not include the:

- Executive Summary
- Budget and Budget Narrative
- Current and Pending Support
- Curriculum Vitae
- Past NRC Funding and Summary of Results from Past NRC Funding, if applicable
- Other required forms.

Applications that are incomplete, non-compliant and/or nonresponsive will not be reviewed.

D. Summary of Current and Pending Support:

The applicant must provide information on all current and pending support for ongoing projects and proposals. Include the proposed project and all other projects or activities using Federal assistance or that require a portion of time of the PI or other senior personnel. Describe the relationship between the proposed project and these other projects and state the number of person-months per year to be devoted to the projects.

E. Curriculum Vitae:

Include a two (2) page maximum vitae for each PI and other senior personnel involved in carrying out the proposal, including recent relevant publication references.

Applications that are incomplete, non-compliant and/or nonresponsive will not be reviewed.

F. Detailed Budget Narrative and Application Instructions:

Submit a detailed budget narrative explaining the need for and justifying the costs of the Federal and the non-Federal expenditures as they relate to the application objectives. Budget should be labeled with each budget line item and proposed funding. **See attachment I - for a sample budget narrative. This level of detail shall be followed in describing your budget narrative under SF-424A.**

SF-424 Section A – Budget Summary: Fill in "**31310021K0002**" under the "Grant Program Function or Activity" (Column a). The Catalog of Federal Domestic Assistance (CFDA) number is 77.008 (Column b). Columns (c) and (d) should be left blank. Columns (e) and (f) should include the total Federal and Non-Federal funding for the entire grant period.

List all expenditures in the budget narrative using the same budget categories on SF- 424A, Section B (Budget Category). Describe each expense in the budget narrative by object class (e.g., personnel, equipment, travel, and other costs) in the order that they appear on the SF-424A, Section B. Include the dollar amounts in the budget narrative/justification and how the dollar amounts were derived.

Sub-award: A budget narrative is requested for sub-award institutions. Letters of commitment between multiple institutions, signed by their respective authorized organization representatives, are required as part of the application.

The cost sharing or matching amount, if applicable, should be entered in the SF-424A, Section C, "Non-Federal Resources." The total on Section D, Line 14, and Section E, Line 21, equals total project costs.

Include a detailed description of all costs in the budget justification.

The budget justification submitted with the application must match the dollar amounts on all required forms (i.e., SF-424, SF-424A, Section F). Please explain each calculation and provide a narrative that supports each budget category as it relates to the project objectives.

Applicants shall include a certification statement regarding compliance with the

Section 2.B. Citizenship Requirement of this announcement. For non-citizen PIs/researchers, documentation of lawful admittance to the United States shall be provided in the grant application.

G. Audit Report

Submit a current copy of the institution's A-133 Audit report.

1.A. Submitting an Application Electronically to the NRC

We encourage applicants to apply early to avoid problems uploading applications to www.Grants.gov. We will make adjustments to the correction window or submission deadlines if necessary to protect applicants' ability to submit on-time.

Electronic submission is required through www.Grants.gov. If the recipient cannot submit through Grants.gov due to transmission issues, applications may be submitted via email to the NRC. The Authorized Organization Official should contact the GRANTS.GOV SUPPORT to document and help resolve the submission issues, then:

1. Document the issue with the NRC Grants Officer listed in Section VII. Agency Contacts; and
2. Include recipient's www.Grants.gov support ticket number with recipient's alternate submission.

3.B.1. Alternate submissions

Email submissions must be sent by the institution's Authorized Organization Official (not the PI) to the Agency contacts found in Section VII in this announcement. The email subject line should include the www.Grants.gov support ticket number with the recipient's name.

1.B. Application Processing

Applications received will be evaluated by the NRC. Applications that are received after the closing date and time, incomplete or non-responsive will not be reviewed or considered for award. Applications that are submitted under the incorrect FOA number shall not be reviewed or considered for award.

Applications that are incomplete, non-compliant and/or nonresponsive will not be reviewed.

Grants.gov will acknowledge receipt of applications. The submitting Authorized Organizational Representative receives the Grants.gov acknowledgments. Applicants can track the recipient's applications at: http://www.grants.gov/web/grants/applicants/track-my-application.html.

2. Funding Restrictions

All NRC awards are subject to the administrative requirements in accordance with 2 CFR Part 200 and other considerations described in "The Nuclear Regulatory Commission's Standard Terms and Conditions for U.S. Non-Governmental Recipients."

3. Information on Civil Rights Compliance Requirements Imposed as a Condition of Award of NRC Federal Financial Assistance

The NRC has delegated the Office of Small Business and Civil Rights (SBCR) authority to administer the agency's civil rights programs, which include internal and external programs. The grants administration processes are regarded as an NRC conducted program or activity, which fall under SBCR's external civil rights program functions. Federal and NRC regulations state, "No person in the United States shall, on the ground of race, sex, color, national origin, [disability], religion, age, sexual orientation, and status as a parent, be excluded from participation in, be denied the benefits of, or subjected to discrimination under any NRC-conducted or Federal financially assisted program or activity (42 U.S.C. Chapter 21, Subchapter 5; 42 U.S.C. 5801; 29 U.S.C. 701 note; 42 U.S.C. 3001 note)." SBCR conducts compliance reviews, investigates complaints, enforces violations and submits reports to Federal oversight agencies. Relevant NRC regulations can be found under 10 CFR Part 4 and 10 CFR Part 5.

Applicants must ensure that individuals selected as beneficiaries of support under this grant meet the legal requirements consistent with Supreme Court Decisions including *Fisher v. University of Texas at Austin, Gratz v. Bollinger,* and *Grutter v. Bollinger*.

3.A. Requirements of Recipients

Recipients are required to:

- Participate in mandatory NRC pre- and post-award compliance reviews, conducted by SBCR.
- Submit an annual Equal Opportunity compliance report to SBCR no later than December 31 of each calendar year. Based on compliance monitoring, recipients may be required to provide interim EO reports.
- Provide comprehensive civil rights training for existing and new staff for those administering the grant, and periodically retrain existing staff to establish and update their knowledge of Equal Opportunity civil rights statutes and emerging issues.
- Establish procedures for "processing and disposition" of discrimination complaints and maintain a complaint log, which includes complainants' characteristic designation as covered under Title IX, Title VI and Coordinating Regulations and Executive Orders, etc. a unique identifier for the complainant; the nature of the complaint and date filed; the investigation completion date; the date and nature of the disposition; and other pertinent information
- Display the NRC's nondiscrimination policy and procedures for filing complaints in prominent locations to inform staff, beneficiaries and potential beneficiaries; disseminate a nondiscrimination policy statement (e.g., recruitment materials, brochures and other materials, handbooks, applications and postings); and distribute notices regarding programs and activities to eligible populations, including minority and low- income populations; and to Limited English Proficient (LEP) individuals. (See "Guidance to Federal Financial Assistance Recipients Regarding Title VI Prohibition Against National Origin Discrimination Affecting Limited English Proficient Persons," 69 FR 10066, March 3, 2004.)

3.B. Additional Links

- 10 CFR § 2.111, 10 CFR Part 2--RULES OF PRACTICE FOR DOMESTIC LICENSING PROCEEDINGS AND ISSUANCE OF ORDERSLICENSING PROCEEDINGS AND ISSUANCE OF ORDERS
- 10 CFR § 19.32, 10 CFR Part 19--NOTICES, INSTRUCTIONS AND REPORTS TO WORKERS: INSPECTION AND INVESTIGATIONS

SBCR staff is available to provide direction, guidance, and technical assistance to help ensure compliance. SBCR staff can be contacted via email at OCCPrograms.Resource@nrc.gov or by phone at 301-415-7380.

4. Other Submission Requirements and Information

Automated Standard Application for Payments (ASAP)

The NRC uses ASAP for recipient reimbursement. ASAP is a recipient-initiated payment and information system, designed to provide a single point of contact for the request and delivery of Federal funds. ASAP was developed by the Financial Management Service (FMS) of the U.S. Treasury and the Federal Reserve Bank (FRB) of Richmond. For information about ASAP, see Department of Treasury's Automated Standard Application for Payment (ASAP) system. Recipient organizations must be enrolled in ASAP.Gov and their bank account must be linked to the NRC Agency Link Code (31000001) to receive funds.

Organizational Dun and Bradstreet Numbering System (DUNS)

The DUNS (Dun and Bradstreet Numbering System) number on the application must match the DUNS number provided in the SAM database at https://www.sam.gov with http://www.grants.gov.

For additional information, see http://www.grants.gov/web/grants/applicants/applicant-faqs/obtaining-duns-number.html

If the Payee DUNS for ASAP.Gov is different from the DUNS number provided in the SAM.gov registration, please include the Payee DUNS at the end of the budget narrative under the heading ASAP DUNS. Payments may be delayed if this information is missing in the application.

FedConnect
The NRC will no longer provide electronic copies of award/modification documents via email. Therefore, applicants are required to register with FedConnect at www.FedConnect.net. Applications must be submitted through Grants.gov. Please see instructions on using FedConnect at: FedConnect: Ready, Set, Go!

Section V. Application Review Information

Applications that are incomplete, non-compliant and/or nonresponsive will not be reviewed.
The NRC protects the information contained in an application from unauthorized disclosure,

consistent with the need for objective review of the application and the requirements of the Freedom of Information Act and the Privacy Act. However, if a grant is awarded, the Federal government has the right to use or disclose the information to the extent authorized by law. A recipient may withdraw its application at any time.

1. Review Process

Prior to a comprehensive technical evaluation, the NRC will perform a preliminary review to assess the responsive of each application. This review includes an administrative review of the application to determine if it's complete and complies with the FOA requirements. If an application is determined to be noncompliant or nonresponsive it will not receive a technical evaluation. Only applications meeting the preliminary review criteria will be considered for technical review.

2. Selection Criteria

Technical evaluation of applications shall be based on how well the applications meet or exceed the selection criteria. Applications are evaluated and rated individually by a panel of peer reviewers comprised of both Federal and non-Federal experts in the field. The selection criteria are identified below along with the corresponding weighted value. **The following criteria items must be addressed and clearly labeled:**

Criteria 1 - Significance
Demonstrate that the study is significant, addresses an important problem, and demonstrates how knowledge or common practice be advanced. Explain the effect of these studies on the concepts, methods, technologies, treatments, services, or preventative interventions that drive this field? **(30 points)**

Criteria 2- Approach
Demonstrate the conceptual approach or design, methods, and analyses are adequately developed, well integrated, well-reasoned, and appropriate to the objectives of the project. **(30 points)**

Criteria 3 - Innovation
Demonstrate that the research is original and innovative. Does the project challenge existing paradigms or common practice; address an innovative hypothesis or critical barrier to progress in the field. Does the project develop or employ novel concepts, approaches, methodologies, tools, or technologies for this area? **(20 points)**

Criteria 4 – Principal Investigators
Demonstrate that the PI(s), and other researchers are experienced and have the expertise, past experience, and available resources to execute the project. **(20 points)**

3. Selection Process

Applications recommended for award will be made in accordance with the selection criteria. The highest ranked applications will receive priority consideration within the limits of available funding. The selecting official makes the final award recommendations and generally recommends funding in rank order, unless a particular recipient/selectee:

- Submits an application that ensures diversity in technical disciplines,

- Demonstrated prior award performance issues,
- Received multiple prior NRC grant awards, or
- Has current awards with high levels of unexpended grant funds.

The decision not to award a grant, or to award a grant at a particular funding level, is discretionary and is not subject to appeal to any NRC official or board.

4. Anticipated Effective Date

The estimated award date for this Funding Opportunity Announcement is 09-30-2021.

Section VI. Award Administration Information

1. Award Notices

Formal notification in the form of a Grant or Cooperative Agreement will be provided to the applicant organization via FedConnect. (See Section IV, Application and Submission Information, Item 6. Other Submission Requirements and Information.) The award signed by the Grants Officer is the authorizing document, and the Grants Officer is the only person authorized to obligate funds and permit changes to approved projects on behalf of the NRC.

Selection of an application for award is not an authorization to begin technical research. Any costs incurred before receipt of the Grant are at the recipient's risk. See Section IV.4., "Funding Restrictions."

2. Administrative and National Policy Requirements

"The Nuclear Regulatory Commission's Standard Terms and Conditions for U.S. Nongovernmental Recipients" contain the administrative and national policy requirements for all NRC awards and is located at the end of this FOA.

3. Limitation of Liability

The NRC is not responsible for any applicable costs if agency priorities cause it to cancel this program prior to awarding any grants. Publishing this announcement does not obligate the NRC to award grants under this announcement.

4. Reporting

FEDERAL FINANCIAL REPORTS

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The performance (technical) report is subject to 2 CFR §200.328. The Research Performance Progress Reports (RPPR) should include a concise summary describing a recipient's technical research progress. Details on project status, outcomes and any changes that have occurred during the grant reporting period should be included. Guidance for items that should be included in the RPPR can be found on the NRC Grant Website.

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Recipients are instructed to limit progress reports to **10 pages or less**, including attachments.

FINAL REPORTS
A Final Performance Progress Report and Federal Financial Report (SF-425) are required within 90 days after the award has expired, been relinquished, or terminated; to include the submission of a final, Tangible Property Report, (SF-428 and SF428-B). The report should include final project outcomes or findings of research performed under grant. All final reports must be submitted through FedConnect. Guidance for items that should be included in the RPPR Final Report can be found on the NRC Grant Website.

Section VII. Agency Contacts

We encourage the recipient's inquiries concerning this funding opportunity and welcome the opportunity to answer questions from potential applicants.

Contacts:

NRC Financial Contact
M'Lita Carr
Grants Officer
Phone: 301-415-6869
E-mail: MLita.Carr@nrc.gov

NRC Program Contact
Nancy Hebron-Isreal
Grants Program Manager
Phone: 301-415-6996
E-mail: Nancy.Hebron-Isreal@nrc.gov

Section VIII. Other Information

1. Required Federal Citations

Program Authority: Section 31b and 141b of the Atomic Energy Act of 1954, as amended.

2. Authority and Regulations

This program is described in the Catalog of Federal Domestic Assistance at http://www.cfda.gov/ and is not subject to the intergovernmental review requirements of Executive Order 12372, amended by E.O. 12416 and supplemented by E.O. 13132. Financial assistance awards are made under the authorization 42 U.S.C. § 2051. All awards are subject to the cost principles and other considerations described in 2 CFR Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

3. Non-Delinquency on Federal Debt

The Federal Debt Collection Procedure Act, 28 U.S.C. 3201(e), provides that an organization or individual that is indebted to the United States, and has a judgment lien filed against it, is ineligible to receive a Federal grant. The NRC cannot award a grant unless the authorized organizational official of the applicant organization certifies, by means of his/her signature on the application, that the organization is not delinquent in repaying any Federal debt. If the applicant discloses delinquency on a debt owed to the Federal Government, the NRC may not award the grant until the debt is satisfied or satisfactory arrangements are made with the agency to which the debt is owed.

4. Office of Small Business and Civil Rights (SBCR) Compliance (Promote non-discrimination in NRC assisted programs and activities

Before a grant award can be made, a domestic applicant organization must complete the NRC SBCR pre-award compliance review. (See Section IV.5.) Organizations must certify compliance in accordance with Title VI of the Civil Rights Act of 1964 (P.L. 88352, as amended), which prohibits discrimination on the basis of race, color, or national origin; Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112, as amended), which prohibits discrimination on the basis of handicaps; Title IX of the Education Amendments of 1972 (P.L. 92-318, as amended), which prohibits discrimination on the basis of sex; and the Age Discrimination Act of 1975 (P.L. 94-135), which prohibits discrimination on the basis of age.

The Nuclear Regulatory Commission's
Standard Terms and Conditions for U.S. Nongovernmental Recipients

Preface

This award is based on the application submitted to, and as approved by, the Nuclear Regulatory Commission (NRC) 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 grant or cooperative agreement. The following also apply:

- 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 Part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards."

Pursuant to the Federal Grant and Cooperative Agreement Act of 1977, as amended, the NRC distinguishes its financial assistance relationships from procurements. For additional information, see the agency's Management Directive 11.6, "Financial Assistance Program."

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 (E.O.), Office of Management and Budget (OMB) Circulars, the NRC's Mandatory Standard Provisions, special award conditions, and standard award conditions.

Certifications and Representations: These terms incorporate the certifications and representations required by statute, executive order, or regulation that were submitted in System for Award Management (SAM), the central repository for government-wide certifications and representations required of Federal grants recipients.

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 200

All provisions of 2 CFR Part 200 and all Standard Provisions attached to this grant/cooperative agreement are applicable to the Recipient and to sub-recipients which meet the definition of "Recipient" in 2 Part §200.86, unless a section specifically excludes a sub-recipient from coverage. The recipient 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 D of 2 CFR Part 200 and include this term in lower-tier (sub-award) covered transactions.

Recipients must comply with monitoring procedures and audit requirements in accordance with

2 CFR Part 200, Subpart F—AUDIT REQUIREMENTS.

2. Award Package

The recipient is obligated to conduct project oversight as may be appropriate, to manage the funds with prudence, and to comply with the provisions outlined in 2 CFR Part 200. Within this framework, the Principal Investigator (PI) named on the award face page, 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 and is subject to a refund of unexpended grant funds to the NRC.

The non-Federal entity alone must be responsible, in accordance with good administrative practice and sound business judgment, for the settlement of all contractual and administrative issues arising out of procurements related to its grant award. These issues include, but are not limited to, source evaluation, protests, disputes, and claims. These standards do not relieve the non-Federal entity of any financial or fiduciary responsibilities or obligations arising under its grant, including sub-contracts and sub-awards, or any other contractual or financial obligation. The Federal awarding agency will not substitute its judgment for that of the non-Federal entity unless the matter is primarily a Federal concern. Violations of law will be referred to the local, State, or Federal authority having proper jurisdiction. See 2 CFR § 200.318(k), "General Procurement Standards."

Registration in FedConnect®

The Nuclear Regulatory Commission (NRC) uses Unison Global's secure and auditable two-way web portal, FedConnect®, to communicate with vendors and contractors. FedConnect® provides bi-directional communication between the vendor/contractor and the NRC throughout pre-award, award, and post-award acquisition phases. Therefore, in order to do business with the NRC, vendors and contractors must register to use FedConnect® at https://www.fedconnect.net/FedConnect. The individual registering in FedConnect® must have authority to bind the vendor/contractor. There is no charge for using FedConnect®. Assistance with FedConnect® is provided by Unison Global Software Systems, not the NRC. FedConnect® contact and assistance information is provided on the FedConnect® web site at https://www.fedconnect.net/FedConnect.

Subawards

Appendix II to 2 CFR Part 200, "Contract Provisions for Non-Federal Entity Contracts Under Federal Awards."

Sub-recipients, sub-awardees, and contractors have no relationship with the NRC under the terms of this grant/cooperative agreement. All required NRC approvals must be directed through the Recipient to the NRC. See 2 CFR § 200.318.

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.

The recipient agrees to comply with the non-discrimination requirements below:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d et seq.), which prohibits discrimination on the grounds of race, color, or national origin in any program or activity receiving Federal financial assistance.
- Title IX of the Education Amendments of 1972 (20 U.S.C. §§ 1681 et seq.), which prohibits discrimination on the basis of sex in any education program or activity receiving Federal financial assistance.
- Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of disability in any program or activity receiving Federal financial assistance.
- The Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101 et seq.), which prohibits discrimination on the basis of age in any program receiving Federal financial assistance.
- The Americans with Disabilities Act of 1990 (42 U.S.C. §§ 12101 et seq.), which prohibits recipients from discriminating on the basis of disability in employment (Title I); State and local government services (Title II); and places of public accommodation and commercial facilities (Title III).
- Parts II and III of E.O. 11246, as amended by E.O.s 11375, 11478, 12086, 12107, 13279, 13665, and 13672, which prohibits Federal contractors and Federally assisted construction contractors and subcontractors, who do over $10,000 in Government business in one year, from discriminating in employment decisions on the basis of race, color, religion, sex, or national origin and requires that government contractors take affirmative action to ensure that equal opportunity is provided in all aspects of their employment.
- E.O.13166, “Improving Access to Services for Persons with Limited English Proficiency,” which clarifies that national origin discrimination under Title VI includes discrimination on the basis of limited English proficiency (LEP) and requires that the recipient take reasonable steps to ensure that LEP persons have meaningful access to programs and activities.
- Any other applicable non-discrimination law(s).

Generally, Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 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 U.S.C. § 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.

Applicants must ensure that individuals selected as beneficiaries of support under this grant meet the legal requirements consistent with Supreme Court Decisions including *Fisher, Gratz, and Grutter*.

Modifications/Prior Approval

Prior written approval is required before a recipient may make budget and program modifications or undertakes particular activities. If NRC approval is required for changes in the grant or cooperative agreement, it must be requested and obtained from the NRC Grants Officer in advance of the change or obligation of funds. All requests for NRC prior approval, including requests for extensions to the grant period, must be made, in writing (which includes submission by e-mail), to the designated Grants Officer at least 30 business days before the proposed change. The request must be signed by the authorized organizational official. Failure to obtain prior approval, when required, from the NRC Grants Officer, may result in the disallowance of costs, or other enforcement action within the NRC's authority.

No-Cost Extensions

Not available under this program.

Lobbying Restrictions

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

The recipient will comply with provisions of 31 U.S.C § 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 recipient shall submit, at the time of application, a completed “Certification Regarding Lobbying” form, regardless of dollar value.

If applicable, the recipient receiving in excess of $100,000.00 in Federal funding shall submit a completed Standard Form (SF-LLL), “Disclosure of Lobbying Activities” for any persons engaged in lobbying activities, as discussed at 31 U.S. Code § 1352 – Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions. The form concerns 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. If the Recipient must submit the SF-LLL, including those received from sub-recipients, contractors, and subcontractors, to the Grants Officer.

Debarment And Suspension – (See 2 CFR Part 180; 2 CFR § 200.206; 2 CFR 200.114 and 2 CFR Part 200, Appendix II.)

The Recipient 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, 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 the recipient's 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); or

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

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

Debarment, Suspension, Ineligibility, and Voluntary Exclusion

The recipient 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 2 CFR Part 180 and 2 CFR Part 200.

Drug-Free Workplace

The recipient 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 U.S.C. §§ 8101-8106.

Implementation of E.O.13224 – Executive Order on Terrorist Financing

The recipient 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 recipient 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.

The recipient must comply with E.O. 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: Implementation of Executive Order 13224 Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten To Commit, or Support Terrorism amended by E.O. 13268, 13284, and 13372.

Procurement Standards - 2 CFR §§ 200.318-200.326

Sections 200.318 - 200.326 set forth standards for use by recipients 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 will be imposed by the Federal awarding agencies upon recipients, unless specifically required by Federal statute, executive order, or approved by OMB.

Travel and Transportation

Travel must be in accordance with the Recipient's Travel Regulations or the U.S. Government Travel Policy and Regulations at: http://www.gsa.gov/portal/category/21222 and the per diem rates set forth at: http://www.gsa.gov/portal/content/104877, absent Recipient's travel regulations. Travel and transportation costs for the grant must be consistent with provisions as established in 2 CFR § 200.474-475.

All travel, domestic or international, must not increase the approved travel budget and the total estimated award amount of the grant.

The recipient will comply with the provisions of the Fly America Act (49 U.S.C 40118), as implemented at 41 CFR §§ 301-10.131 through 301-10.143.

Any foreign travel using the grant funds must be approved by the NRC.

Federal funds may not be used to travel to countries identified under the US Department of States, Directorate of Defense Trade Controls, Country Policies and Embargoes, http://www.pmddtc.state.gov/embargoed_countries/index.html.

Property Standards

Property standards of this award shall follow provisions as established 2 CFR §§ 200.310-200.316.

Intangible Property

Intangible and intellectual property of this award shall generally follow provisions established in 2 CFR § 200.315.

Inventions Report - The Bayh-Dole Act (P.L. 96-517) affords recipients the right to elect and retain title to inventions they develop with funding under an NRC grant award ("subject inventions"). In accepting an award, the recipient 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 Recipient report all subject inventions to the awarding agency (NRC) as well as include an acknowledgement of Federal support in any patents.

Patent Notification Procedures - If the NRC or its recipients, 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, E.O.12889 requires the NRC to notify the owner. If the Recipient uses or has used patented technology under this award without license or permission from the owner, the recipient must notify the Grants Officer. This notice does not imply 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 an NRC Federal financial assistance award, such as data, databases or software are determined by Subpart D of 2 CFR Part 200. The recipient owns any work produced or purchased under an NRC Federal financial assistance award subject to the 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 Recipient may copyright any work produced under an NRC Federal financial assistance award subject to the 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 the NRC and recipient employees may be copyrighted, but only the part authored by the recipient is protected because, under 17 U.S.C. § 105, works produced by Government employees are not copyrightable in the United States. On occasion, the NRC may ask the Recipient to transfer to the NRC its copyright in a particular work when the NRC is undertaking the primary dissemination of the work. Ownership of copyright by the Government through assignment is permitted under 17 U.S.C. § 105.

Record Retention and Access

Recipient shall follow established provisions in 2 CFR §§ 200.334-338.

Conflict of Interest

Conflict of Interest standards for this award will follow the Organizational Conflict of Interest (OCOI) requirements set forth in Section 170A of the Atomic Energy Act of 1954, as amended, and provisions set forth at 2 CFR § 200.112, "Conflict of Interest**."**

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 Recipient'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, Acquisition Management Division, unless otherwise delegated, who

shall appoint an intra-agency Appeal Board to review a recipient appeal of an agency action, if required, which will consist of the program office director, the Deputy Director of Office of Administration, and the Office of General Counsel, or their designees.

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 recipient 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.

Remedies for Noncompliance

Termination of this award will follow provisions as established and described above in "Dispute Review Process" in 2 CFR §§ 200.339-343.

Performance and Financial Monitoring and Reporting - 2 CFR §§ 200.328-330

Recipient Financial Management systems must comply with the provisions in 2 CFR § 200.302.

- Payment – 2 CFR § 200.305
- Cost Share or Matching – 2 CFR § 200.306
  - Recipients are to be careful with providing excessive cost share or match since at the end of the grant, if the identified match has not been provided, then a portion of the Federal share may be required to be returned to the Government.
- Program Income – 2 CFR § 200.307
  - Earned program income, if any, will be added to funds committed to the project by the NRC and recipient and used to further eligible project or program objectives or be deducted from the total project cost for the grant, as directed by the Grants Officer or indicated in the terms and conditions of the award.
- Revision of Budget and Program Plans – 2 CFR § 200.308
  - The recipient is required to report deviations from the approved budget and program descriptions in accordance with – 2 CFR § 200.308(b) and request prior written approval from the Project Officer and the Grants Officer.
  - The recipient is not authorized to re-budget between direct costs and indirect costs without written prior approval of the Grants Officer.
  - Allowable Costs – 2 CFR §§ 200.403
- See section 2 CFR §§ 200.331-333 for Subrecipient Monitoring and Management.

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Period of Performance – 2 CFR § 200.309

The recipient may charge to the Federal award only allowable costs incurred during the period of performance and any costs incurred before the NRC or pass-through entity made the Federal award that was authorized by the NRC or pass through entity.

Incremental Funding

Additional Funding for this award is contingent upon the availability of appropriated funds, satisfactory compliance, and the recipient's capacity to manage the award and comply with award requirements. The recipient agrees to perform work up to the amount obligated as specified in Attachment A of the grant award. The NRC is not obligated to reimburse the recipient for expenditures in excess of the total funds obligated by the NRC. The recipient is not authorized to extend the technical research beyond the amount obligated to this award. Any work performed by the grantee beyond the funding amount obligated in Section A will be at the grantee's risk.

Automated Standard Application For Payments (ASAP) Procedures

Unless otherwise stated, recipient payments are made using the Department of Treasury's Automated Standard Application for Payment (ASAP) system, ASAP.gov, through preauthorized electronic funds transfers. To receive payments, recipients 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 is required to make ASAP withdrawals: (1) ASAP account number – the award number found on the cover sheet of the award; (2) Agency Location Code (ALC) – 31000001; and Region Code. Recipients enrolled in the ASAP system do not need to submit a "Request for Advance or Reimbursement" (SF-270).

II. Audit Requirements

Audits

Organization-wide or program-specific audits are performed in accordance with the Single Audit Act of 1996, as amended, and as implemented by 2 CFR Part 200, Subpart F— "AUDIT REQUIREMENTS." Recipients are subject to the provisions of this subpart if they expend $750,000 or more in a year in Federal awards. See 2 CFR 2 CFR § 200.501.

The Form SF-SAC and the Single Audit Reporting packages for fiscal periods ending on or after January 1, 2008 are submitted online, as follows:

1. Create the recipient's online report ID at: https://facides.census.gov/Account/Login.aspx;
2. Complete the Form SF-SAC;
3. Upload the Single Audit;
4. Certify the Submission; and
5. Click "Submit."

Organizations expending less than $750,000 a year are not required to have an annual audit for that year but must make their grant-related records available to the NRC or other designated officials for review or audit.

Unsatisfactory Compliance with the Terms of the Grant

Failure to comply with the terms of the award and maintain at least a satisfactory rating may result in designation of the recipient as high risk and the assignment of special award

conditions. Further action may be required as specified in the standard term and condition entitled “Remedies for Noncompliance.”

Failure to comply with the award provisions may result in a negative impact on future NRC funding. In addition, the Grants Officer may withhold payments; change the method of payment from advance to reimbursement; impose special award conditions; suspend or terminate the grant.

Other Federal Awards With Similar Programmatic Activities

The recipient will immediately notify the Project Officer and the Grants Officer in writing if after award, other financial assistance is received to support or fund any portion of the program description stated in the NRC award. The NRC will not pay for costs that are funded by other sources.

Prohibition Against Assignment By The Recipient

The recipient will not transfer, pledge, mortgage, or otherwise assign the award, or any interest to the award, or any claim arising under the award, to any party, banks, trust companies, or other financing or financial institutions without the written approval of the Grants Officer.

Site Visits

The NRC, through authorized representatives, has the right to make site visits to review project accomplishments and management control systems and to provide technical assistance as required. If any site visit is made by the NRC on the premises of the recipient or contractor under an award, the recipient shall provide and shall require his/her contractors to provide reasonable access to all facilities and provide necessary assistance for the safety and convenience of the Government representative in the performance of his/her official duties.

III. Additional Requirements

Criminal and Prohibited Activities

The Program Fraud Civil Remedies Act (31 U.S.C. §§ 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).

False statements (18 U.S.C. § 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.
False Claims Act (31 U.S.C. § 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.

Copeland “Anti-Kickback” Act (18 U.S.C. § 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

Recipients are encouraged to purchase American-made equipment and products with funding provided under this award.

Increasing Seat Belt Use in the United States

E.O. 13043, amended by E.O. 13652, requires recipients to encourage employees and contractors to enforce on-the-job seat belt policies and programs when operating company-owned, rented or personally-owned vehicle.

Federal Leadership of Reducing Text Messaging While Driving

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

Federal Employee Expenses

Federal agencies are barred from accepting funds from a recipient 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 recipient’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 Recipients or applicants regardless of the source.

Minority Serving Institutions (MSIs) Initiative

Pursuant to Presidential E.O., 13889, “Continuance of Certain Federal Advisory Committees;” E.O.13592 “Improving American Indian and Alaska Native Educational Opportunities and Strengthening Tribal Colleges and Universities;” E.O. 13621, “White House Initiative on Educational Excellence for African Americans;” 13779, “White House Initiative to Promote Excellence and Innovation at Historically Black Colleges and Universities (HBCUs);” 13872, “Economic Empowerment of Asian Americans and Pacific Islanders;” 13935, “White House Hispanic Prosperity Initiative;” and E.O.s 13309 and 12994, “President’s Committee for People with Intellectual Disabilities;” the NRC is strongly committed to broadening the participation of MSIs in its financial assistance program. The NRC’s goals include achieving full participation of MSIs/HBCUs in order to advance the development of human potential, strengthen the Nation’s capacity to provide high-quality education, and increase opportunities for MSIs/HBCUs to participate in and benefit from Federal financial assistance programs. The NRC encourages all applicants and recipients to include meaningful participation of MSIs/HBCUs. Institutions eligible to be considered MSIs/HBCUs 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 recipient 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 Recipient organization shall investigate the allegation and submit its findings to the Grants Officer. The NRC may accept the recipient's findings or proceed with its own investigation. The Grants Officer shall inform the recipient 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. If the recipient releases information related to an NRC-funded project, the recipient is required to—(1) submit a copy of such information to the NRC, and (2) include a statement that the project or effort undertaken was or is sponsored by the NRC. The recipient 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 **[Recipient 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 U.S. Nuclear Regulatory Commission."

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

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

> "…any grant, contract, or cooperative agreement provided or entered into by a Federal department or agency under which funds are to be provided to a private entity, in whole or in part, shall include a condition that authorizes the department or agency to terminate the grant, contract, or cooperative agreement, without penalty, if the recipient or any subrecipient, or the contractor or any subcontractor
> (i) engages in severe forms of trafficking in persons or has procured a commercial sex act during the period of time that the grant, contract, or cooperative agreement is in

effect, or (ii) uses forced labor in the performance of the grant, contract, or cooperative agreement." (See 22 U.S.C. §7104(g).)

EXECUTIVE COMPENSATION REPORTING

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

Reporting Subawards and Executive Compensation.

a. Reporting of first-tier subawards.

1. *Applicability.* Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates $25,000.00 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111–5) for a subaward to an entity (see definitions in paragraph e. of this award term).

2. Where and when to report.

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

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

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

b. Reporting Total Compensation of Recipient Executives.

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

i. the total Federal funding authorized to date under this award is $25,000.00 or more;

ii. in the preceding fiscal year, you received—

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

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

iii. The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of

1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)

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

i. As part of your registration profile at http://www.sam.gov.

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

c. Reporting of Total Compensation of Subrecipient Executives.

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

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

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

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

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

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

i. To the recipient.

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

d. Exemptions

If, in the previous tax year, you had gross income, from all sources, under $300,000.00, you are exempt from the requirements to report:

i. Subawards, and

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

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

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

i. A Governmental organization, which is a State, local government, or Indian tribe;

ii. A foreign public entity;

iii. A domestic or foreign nonprofit organization;

iv. A domestic or foreign for-profit organization;

v. A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

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

3. Subaward:

i. This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.

ii. The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. .210 of the attachment to OMB Circular A–133, “Audits of States, Local Governments, and Non-Profit Organizations)

iii. A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

4. *Subrecipient* means an entity that:

i. Receives a subaward from you (the recipient) under this award; and

ii. Is accountable to you for the use of the Federal funds provided by the subaward.

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

i. Salary and bonus.

ii. *Awards of stock, stock options, and stock appreciation rights.* Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.

iii. *Earnings for services under non-equity incentive plans.* This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

iv. *Change in pension value.* This is the change in present value of defined benefit and actuarial pension plans.

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

Other compensation, if the aggregate value of all such other compensation (e.g., severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds $10,000.00.