Part I. Overview Information

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

Title:
U.S. Nuclear Regulatory Commission Funding Opportunity Announcement (FOA), Scholarship and Fellowship Education Grant, Faculty Development Grant, and Trade School and Community College Scholarship Grant, Fiscal Year (FY) 2020.

Announcement Type:
New

Announcement of Opportunity Number:
31310020K0002

Catalog of Federal Domestic Assistance Number:
CFDA #: 77.008

Key Dates:
Release/Posted Date: **02-10-2020**
Application Due Date: **04-10-2020**
Estimated Start Date: **04-01-2021**

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 04-10-2020. 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.

Failure to follow the instructions included in this FOA will result in your application not being considered for award.

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 total amount of funding available for the scholarship, fellowship, faculty development and trade school and community college programs is $11,000,000.00. The number of awards will depend on the number, quality, duration and costs of the applications received.

Budget and Project Period:
Scholarship: This is a two (2) year program. Scholarship funds may be requested for up to $200,000.00 total costs (direct costs and facilities and administrative costs) for the project period. A scholarship student may not receive more than $10,000.00 per year or exceed $20,000.00 over a 2-year period.

Fellowship: This is a four (4) year program. Fellowship funds may be requested for up to $400,000.00 total costs (direct costs and facilities and administrative costs) for the project period. A post graduate student may not receive funding in excess of $50,000.00 per year or exceed $200,000.00 over a 4-year period.

Faculty Development: This is a three (3) year program. Faculty Development funds may be requested for up to $450,000.00 total costs (direct costs and facilities and administrative costs) for the project period, provided that an additional $50,000.00 per year is fully matched by the recipient. Other direct costs include but are not limited to course development, equipment, stipends, participation in professional society meetings, and preparation of papers, travel, and associated expenses. The base award is up to $300,000.00. However, the NRC may increase the award amount to the extent that a portion of the award is matched dollar for dollar by the recipient. For example, an award in the amount of $400,000.00 ($100,000 over the base award) would require a match of $100,000.00 from the recipient.

Trade School and Community College: This is a two (2) year program. Trade School and Community College funds may be requested for up to $150,000.00 total costs (direct costs and associated facilities and administrative costs) for the project period. A scholarship student may not receive more than $5,000.00 per year or exceed $10,000.00 over a 2-year 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 to develop an application.

Number of Applications:
An applicant/institution may submit only one application for each of the Scholarship, Fellowship, Faculty Development, and Trade School and Community College Scholarship

grant programs. If applying for more than one grant program, then the applicant/institution must submit separate applications.

NOTE: Trade Schools and Community Colleges may only apply to the Trade School and Community College Scholarship Grant program. Trade Schools and Community Colleges are not eligible for Scholarship, Fellowship and Faculty Development grants.

Continuation Applications:
Not applicable.

Application Materials:
See Section IV. for application materials.

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

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Part II - Full Text of Announcement

Section I. Funding Opportunity Description

1. Program Objectives

The NRC is interested in institutions and technologies that will enhance the NRC's transition as a modern, risk-informed regulator. The challenge areas below are of interest to the NRC and are provided for your awareness/consideration.

- Advanced non-light water reactors (e.g., material degradation, safety systems, non-traditional fuel concepts, safety systems)
  - Heat transfer and fluid flow in molten salts and liquid metal coolants
  - Physical properties and chemistry of molten salts, including tritium production
  - Compatibility of reactors components with salt
  - Corrosion tolerance and criterial for reactor components in salt, sodium, or high-temperature gas environments
  - Graphite aging and degradation
  - Modeling and simulation of steady-state and transient behavior of microreactors
  - Operational and siting health physics and radiation protection dose calculations and modeling associated with advanced non-LWR
- Probabilistic Risk Assessment (e.g., human reliability analysis, organizational factors, natural hazards risk, common cause failures, crediting recovery of failed equipment, implementing alternative strategies to restore safety function, and approaches or methods to support the use of success paths in risk-informed decision-making)
- Fire Risk Analysis
- Innovative radiation detection technologies for minimizing groundwater contamination at nuclear power plants.
- Nuclear-safety related text mining analytics, and block chain technologies
- Fuels and Neutronics (e.g., nuclear data, lattice/core physics, transport, shielding criticality safety, and sensitivity uncertainty methods and analysis)
  - Accident tolerant, high-burnup, and high-enrichment fuel modeling and performance
  - Accelerated fuel qualification
  - Modeling and simulation of metallic and Tristructural isotropic (TRISO) fuel
- Thermal-hydraulics (e.g., two-phase flow and heat transfer, post-critical heat flux phenomena, fluid mechanics, experimental programs, multi-physics methods, or computation)
  - The development and benchmarking of multiphase computational fluid dynamics (CFD) simulations in reactor fuel bundle geometries to facilitate modeling of reactor accident scenarios using 3D CFD methods.
  - Sub-channel thermal-hydraulics.
  - Quantification of code uncertainty and uncertainty methods.
- Consequence and Emergency Preparedness (e.g., radionuclide dispersion and migration, long-term post-accident recovery health and economic impacts)
  - Benchmarking of simplified methods for near-field atmospheric dispersion affected by building wakes against state-of-the-art dispersion modeling methods
  - Methods for estimating costs and durations for post-accident cleanup and recovery following severe accidents
- Materials engineering (e.g., metallurgy, corrosion science, fracture mechanics, advanced manufacturing, modeling, non-destructive examination)
- Applications of artificial intelligence and advanced sensors for in-service inspection of reactor components
- Natural hazards assessment (seismic, flooding, and high-wind hazards)

  - Flooding (e.g., probabilistic flood hazard assessment)
- Digital instrumentation and controls (e.g., systems design, software engineering, hazards analysis)
- Cybersecurity
- Characterization, handling, storage, or disposal of waste streams (including used fuel) from nuclear power plants (including the various advanced reactor designs that are currently under development.

Scholarship
The primary objective is to support scholarships 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. The nuclear-related discipline supported by this funding is intended to benefit the nuclear safety and security sector broadly. A listing of topics of interest are listed in the Program Objectives section of this Announcement.

Fellowship
The primary objective is to support fellowships 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. The nuclear related discipline supported by this funding is intended to benefit the nuclear sector broadly. A listing of topics of interest are listed in the Program Objectives section of this Announcement.

Faculty Development
The primary objective is to support faculty 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. Proposed faculty can only be supported under one grant for up to one 3-year period or the grant expiration date. Supported faculty cannot be supported on consecutive/multiple grants.

The objectives are to attract and retain highly-qualified individuals in academic teaching careers. The grants specifically target probationary, tenure-track faculty during the first 4 years of their career and new faculty hires in the following academic areas: Nuclear, Mechanical, Civil, Environmental, Electrical, Fire Protection, Geotechnical, Structural and Materials Sciences Engineering and Health Physics. A listing of topics of interest are listed in the Program Objectives section of this Announcement.

Grants may include support for developing applications for new research or continuing research projects in their areas of expertise. The program provides support to enable newer faculty to enhance their careers as professors and researchers in the university department where employed. The research supported by this announcement is intended to benefit the nuclear sector broadly.

Trade School and Community College Scholarships
The primary objective is to support scholarships 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.

See Section VIII, Other Information - Required Federal Citations, for policies related to this announcement.

Section II. Award Information

1. Cost Sharing or Matching

Cost sharing or matching 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 scholarship, fellowship, faculty development, and trade school and community college grant programs. 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 Faculty Development for voluntary cost share or matching information. See 2 CFR 200.306 for additional information.

2. Service Agreements

Service agreements must be signed by the student (including contact information), institution coordinator, and countersigned by the NRC Program Manager, **prior** to the student receiving financial support. If an institution disburses NRC grant funds without prior approval from the NRC of the service agreement, the i**nstitution will be required to** repay those funds to the NRC, and the grant may be terminated. The recipient shall facilitate the distribution of the service agreement to the students and submission of the signed copies to the NRC Program Manager.

NRC requires scholarship, fellowship, and trade school and community college scholarship grant students receiving funds under the NRC Scholarship, Fellowship, and Trade School and Community College Scholarship grant program serve six (6) months in nuclear-related employment for each full or partial year of academic support. A full year of academic support would include two full semesters and consecutive summer sessions (August to July). The employment may be with NRC, other Federal agencies, State agencies, Department of Energy laboratories, nuclear-related industry, or academia in the students sponsored fields of study. The service obligation begins after the student has completed their degree program. Recipients cannot impose additional requirements to scholarship, fellowship, and trade school and community college scholarship students beyond the NRC Service Agreement.

Students have up to 6 months after graduation to secure nuclear related employment. If a student does not obtain nuclear related employment in the 6 months' timeframe, the student can request a waiver, or the NRC will seek repayment of funds.

Failure to complete service for any reason is a breach of the NRC Service Agreement. The NRC will work with students to assist them, to the extent possible, to avoid a breach and fulfill the service obligation. A recipient should immediately contact the NRC if a

situation arises in which a student is potentially unable to fulfill his/her service obligation. Individuals who breach their NRC Service Agreement contract are subject to monetary damages as follows:

(1) Failure to complete degree program – Institutions that support students who are dismissed from school for academic or disciplinary reasons or who voluntarily terminate the degree program before graduation from the institution for which the support was awarded will be in breach of the service agreement and will be liable to the NRC for all funds received by the student.

(2) Students who for any reason fail to comply with the terms and conditions of deferring or postponing the service obligation for nuclear related employment or who for any reason fail to begin or complete their service obligation after completion of degree program, will be in breach of their service obligation contract and will be liable to the NRC for repayment for all NRC funds paid to them on their behalf.

At this time, the amount owed to the NRC is a valid debt of the Federal government subject to all laws and provisions governing the administration of the debt. In accordance with Federal regulations, if payment is not received by the NRC within 30 days from notification of indebtedness, the debt becomes past due and will be subject to interest, penalties, and administrative charges incurred by the Federal government to service the debt. After 120 days of being past due, the debt will be referred to the Department of the Treasury for collection.

An installment repayment agreement may be requested by the debtor if a single lump sum payment is not possible. An installment repayment agreement can be up to 3 years in length and will include all applicable interest, penalties, and administrative charges incurred by the Federal government to service the debt. Failure by the debtor to meet the terms and conditions of the installment agreement will result in the debt being referred to the Department of the Treasury for collection and subject to the various collection actions administered by the Department of the Treasury.

The debtor may submit a request for an installment repayment agreement to the NRC Office of the Chief Financial Officer at (301) 415-7554 or by email at Fees.Resource@nrc.gov . The request should include a justification to establish an installment agreement to repay the debt.

If a waiver is submitted by a student, the NRC may waive, in whole or in part, the service obligation, upon determining that compliance by the student is impractical. Waiver requests must be submitted in writing and must include the reason that the waiver is being sought and 3 examples of documentation (rejection notices) showing that the student attempted to secure nuclear related employment but was unable to do so. If the requested waiver is denied, a written request for payment may be issued to the student by the NRC under the provisions found in 10 CFR 15.21. The NRCs determination on a waiver request is final and not appealable.

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

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

Section III. Eligibility Information

1. Eligible Institutions

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 are not eligible to receive Federal assistance under this announcement. Individuals and other entities may not apply directly to NRC for these grants.

2. Eligibility Requirements

2.A. Eligible Scholarship Students

The Scholarship Program provides funding to 4-year colleges and universities to award scholarships to individuals pursuing nuclear science, engineering, and other disciplines that may be beneficial in developing and maintaining a nuclear workforce. Students must be enrolled in an undergraduate degree program offered by an accredited institution of higher education in the United States. Institutions receiving NRC grants must establish programs to monitor the academic progress of the scholarship students. Grant funds shall be awarded to students of juniors and senior status.
The application must clearly describe how the funds will be applied.

Student applicants must meet the following criteria to receive a scholarship:

1. Have at the time of application and maintain a 3.0 GPA (on a 4.0 scale) overall and within major.
2. Maintain a course load of at least 12 credit hours per semester or be classified as a full-time student (as defined by the institution), in accordance with the

university's policies and practices.
3. Be matriculated in a bachelor's degree/major program in a nuclear or specifically identified (to NRC) nuclear-related discipline **The degree program must be outlined in the proposal.**

NOTE: Trade Schools and Community Colleges are not eligible for Scholarship grants.

2.B. Eligible Fellowship Students

The Fellowship Program provides funding to colleges and universities to award fellowships to individuals pursuing nuclear science, engineering and other disciplines which may be beneficial in developing and maintaining a nuclear workforce. NRC provides funds for fellowships in the fields of Nuclear, Mechanical, Civil, Environmental, Electrical, Fire Protection, Geotechnical, Structural and Materials Sciences Engineering as well as Health Physics. The NRC has interest in topics including but not limited to Fuels, Neutronics, Thermal-hydraulics, Accident-Progression (e.g., performance of safety relief valves), Consequence, Emergency Preparedness, and Radiation Protection Analysis; Radiochemistry, Probabilistic Risk Assessment, Seismology, Fire Risk Analysis, advanced reactor (non-light water reactor), safety systems and other related disciplines. Students need to be enrolled in a graduate degree program offered by an accredited institution of higher education in the United States. Institutions receiving NRC grants must establish programs to monitor the academic progress of the fellowship students. The application must clearly describe how the funds will be applied.

Student applicants must meet the following criteria to receive a fellowship:

1. Have at the time of application and maintain a 3.3 GPA (on a 4.0 scale) overall and within major.
2. Maintain a course load of at least 12 credit hours per semester or be classified as a full-time student (as defined by the recipient), in accordance with the university's policies and practices.
3. Be matriculated in a graduate degree program in a nuclear or specifically-identified (to NRC) nuclear-related discipline. **The degree program must be outlined in the proposal.**

NOTE: Trade Schools and Community Colleges are not eligible for Scholarship grants.

2.C. Eligible Faculty Development Recipients

Eligible faculty development recipients are probationary, tenure-track faculty in the first 4 years of their career, who have been determined by the recipient institution to be committed to an academic career in Nuclear, Mechanical, Civil, Environmental, Electrical, Fire Protection, Geotechnical, Structural and Materials Sciences Engineering and Health Physics.

The NRC has interest in forward focused research topics, including the following, that position the agency to be a modern risk-informed regulator:

- Advanced non-light water reactors (e.g., material degradation, safety systems, non-traditional fuel concepts, safety systems)

  - Heat transfer and fluid flow in molten salts and liquid metal coolants
  - Physical properties and chemistry of molten salts, including tritium production
  - Compatibility of reactors components with salt
  - Corrosion tolerance and criterial for reactor components in salt, sodium, or high-temperature gas environments
  - Graphite aging and degradation
  - Modeling and simulation of steady-state and transient behavior of microreactors
  - Operational and siting health physics and radiation protection dose calculations and modeling associated with advanced non-LWR
- Probabilistic Risk Assessment (e.g., human reliability analysis, organizational factors, natural hazards risk, common cause failures, crediting recovery of failed equipment, implementing alternative strategies to restore safety function, and approaches or methods to support the use of success paths in risk-informed decision-making)
- Fire Risk Analysis
- Innovative radiation detection technologies for minimizing groundwater contamination at nuclear power plants.
- Nuclear-safety related text mining analytics, and block chain technologies
- Fuels and Neutronics (e.g., nuclear data, lattice/core physics, transport, shielding criticality safety, and sensitivity uncertainty methods and analysis)
  - Accident tolerant, high-burnup, and high-enrichment fuel modeling and performance
  - Accelerated fuel qualification
  - Modeling and simulation of metallic and Tristructural isotropic (TRISO) fuel
- Thermal-hydraulics (e.g., two-phase flow and heat transfer, post-critical heat flux phenomena, fluid mechanics, experimental programs, multi-physics methods, or computation)
  - The development and benchmarking of multiphase computational fluid dynamics (CFD) simulations in reactor fuel bundle geometries to facilitate modeling of reactor accident scenarios using 3D CFD methods.
  - Sub-channel thermal-hydraulics.
  - Quantification of code uncertainty and uncertainty methods.
- Consequence and Emergency Preparedness (e.g., radionuclide dispersion and migration, long-term post-accident recovery health and economic impacts)
  - Benchmarking of simplified methods for near-field atmospheric dispersion affected by building wakes against state-of-the-art dispersion modeling methods
  - Methods for estimating costs and durations for post-accident cleanup and recovery following severe accidents
- Materials engineering (e.g., metallurgy, corrosion science, fracture mechanics, advanced manufacturing, modeling, non-destructive examination)
- Applications of artificial intelligence and advanced sensors for in-service inspection of reactor components
- Natural hazards assessment (seismic, flooding, and high-wind hazards)
  - Flooding (e.g., probabilistic flood hazard assessment)
- Digital instrumentation and controls (e.g., systems design, software engineering, hazards analysis)
- Cybersecurity
- NRC is also interested in research proposals that address characterization, handling, storage, or disposal of waste streams (including used fuel) from nuclear power plants (including the various advanced reactor designs that are currently under

development.

The application must describe how the institution will select the faculty participant, what level of support the institution will provide, the procedures that will be used to evaluate, and the type of follow-up that will be provided for the completion of the development plan. The application must also describe how it will work toward building institutional capacity once the participant completes their faculty development activities. **A C.V. is required for each proposed faculty candidate, as well as upon selection of a faculty member(s), the recipient agrees to provide to the NRC with the selected faculty's C.V.** Proposed faculty can be supported for up to one 3-year period. The PI cannot be the faculty participant selected to receive support.

2.D. Eligible Trade School and Community College Scholarship Students

The Trade School and Community College scholarship program provides funding to institutions to award scholarships to individuals pursuing certifications or Associates degrees in disciplines that are beneficial in developing and maintaining a nuclear workforce. Institutions receiving NRC grants must establish programs to monitor the academic progress of the scholarship recipients. The application must clearly state how the funds will be applied.

Student applicants must meet the following criteria to receive a scholarship:

1. Maintain satisfactory academic progress in the student's field of study.
2. Maintain a course load of at least 12 credit hours per semester or be classified as a full-time student (as defined by the recipient), in accordance with the institution's policies and practices.
3. Be matriculated in a Certificate or Associates degree program for the field of nuclear-related study for which the scholarship was approved**.**

All institutions of higher education accredited by the Department of Education are eligible for this program.

NOTE: Trade Schools and Community Colleges are not eligible for Faculty Development grants.

2.E. Citizenship Requirement

All scholarship, fellowship, faculty development, and trade schools and community colleges 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). 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.

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 submitting an application and 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

The institution must download the SF-424 application forms and instructions to apply 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 PI 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. If mentoring interactions and other activities with students/participants are considered a regular part of an individual's academic duties, then mentoring and other interactions with students/participants are non-reimbursable from grant funds. Limited administrative and clerical salary costs associated with the program may be proposed as direct charges to the grant and must be specifically identified and adequately justified.

For Faculty Development grants only, graduate students may be included on applications, not to exceed 2 students per faculty participant supported. Graduate students should not be listed as PIs, co-PIs, or senior personnel and their participation must directly relate to the faculty development plan. PIs must be formally affiliated with an accredited institution of higher education to be involved in this application. Personnel costs to support graduate students assisting the faculty being developed under the grant may be an international student as long as the student is lawfully admitted in the United States. The PI cannot be the faculty participant selected to receive support.

Other Program-Related Expenses: Consultant costs, limited equipment, supplies, travel for personnel, 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 to the NRC to participate in the NRC's Annual Regulatory Information Conference (RIC) is an allowable expense under the scholarship and fellowship program. These expenses must be itemized, as appropriate, in the SF-424A object class categories and fully documented in the budget justification. Committed cost sharing or matching becomes an official part of the budget and should be documented on the SF-424A and the proposal budget justification page.

Recipient Commitment and Responsibilities: The recipient must demonstrate a commitment to the purposes of this FOA in the fields of Nuclear, Mechanical, Civil, Environmental, Electrical, Fire Protection, Geotechnical, Structural and Materials Sciences Engineering as well as Health Physics. The NRC has interest in topics including but not limited to Fuels, Neutronics, Thermal-hydraulics, Accident-Progression (e.g., performance of safety relief valves), Consequence, Emergency Preparedness, and Radiation Protection Analysis; Radiochemistry, Probabilistic Risk Assessment, Seismology, Fire Risk Analysis, advanced reactor (non-light water reactor), safety systems and other related disciplines. 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. Recipients will provide support for scholarship, fellowship, faculty development, and trade schools and community colleges to support individuals who successfully compete in a selection process proposed by the recipient. In a cooperative or partnership arrangement the recipient receiving the NRC grant is responsible for all support provided under the grant. For scholarships, fellowships and

trade and community college scholarships the recipient must clearly describe the student support structure, outline plans to manage the program, provide a description of its selection criteria and process, provide a copy of course listings, and agree to provide the NRC with a list of students. Recipient institutions must agree to provide compliance monitoring of students' academic performance.

Applications Involving Multiple Institutions: When multiple institutions are involved in a cooperative or partnership arrangement, one recipient 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.

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.

3. Submission Dates and Times

See Section IV.3.A. for details.

3.A. Submission and Anticipated Start Dates

Release/Posted Date: **02-10-2020**
Application Due Date: **04-10-2020**
Estimated Start Date: **04-01-2021**

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

Failure to follow the instructions included in this FOA (including page restrictions) will result in your application not being reviewed or considered for award.

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.)

Page Size and Margins

- Use standard paper size (8 ½" x 11").
- Use one-inch margins (top, bottom, left, and right).
- 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

- 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 do not adhere to the required format will not be reviewed or considered for award.

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 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.

If the executive summary exceeds half-page the application will not be reviewed or considered for award.

C. Project Description:

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

Scholarship and Fellowship Program

1. Describe the proposed program including the number and size of the scholarships or fellowships and associated institutions, if any.
2. Describe the recruitment activities and specific marketing strategies designed to attract a large and diverse pool of applicants.
3. Describe the selection process that will ensure the most qualified applicants are selected based on academic merit. State the management structure and the capability for administering the program.
4. Identify an evaluation plan that will provide information on the effectiveness of the project in attracting, preparing and retaining individuals in nuclear careers. All projects are expected to include an evaluation plan to measure the project's

impact and the effectiveness of proposed strategies in attracting, preparing, and retaining students. The evaluation plan should include a mechanism for tracking the scholarship and fellowship students as they fulfill their academic obligation and reporting to the NRC.

5. Provide a schedule of tuition fees and other pertinent costs for students who would be participating in this program.
6. State whether or not these scholarships or fellowships are contemplated as an integrated element of a State or regional strategic plan including innovative approaches covering such arrangements as consortia, partnerships with other institutions, including Minority Serving Institutions (MSIs), shared/distance learning programs, etc. Post-Secondary Minority Institutions are listed at: http://www.ed.gov/about/offices/list/ocr/edlite-minorityinst.html.
7. State any arrangements with other non-Federal entities (State, local government or private) that provide additional support, typically in the form of cost sharing or matching, to the goals of this grant. A written cost sharing or matching agreement or letter is required with the application.
8. Institutions must require individual scholarship and fellowship students to accept the service agreement terms as defined in this FOA.
9. Identify if the proposed program topic is from the NRC listed areas of interest.

Faculty Development Program

1. Describe the proposed faculty development program.
2. Describe the selection process that will ensure that best-qualified applicants are selected based on potential capabilities to become tenured or research professors.
3. State the management structure and the capability for administering the program.
4. Identify the evaluation plan that will provide information on the effectiveness of the project in attracting, preparing, and retaining individuals in educational careers. This plan should include methodologies for measuring the effectiveness of the faculty development program.
5. 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.
6. Identify if the proposed program topic is from the NRC listed areas of interest.

Trade School and Community College Scholarship Program

1. Describe the proposed program including the number and size of the scholarships and associated institutions, if any. State the management structure and the capability for administering the program. Provide a schedule of tuition fees and other pertinent costs for students who would be participating in this program.
2. Describe the recruitment activities and specific marketing strategies designed to attract a large and diverse pool of student applicants. Describe the selection process that will ensure that the most qualified student applicants are selected based on academic merit, with consideration given to financial need and the goal of promoting the participation of minorities, women, and persons with disabilities.
3. Identify an evaluation plan that will provide information on the effectiveness of the project in attracting, preparing and retaining individuals in nuclear careers. This plan should include methodologies for measuring the effectiveness of the program. The evaluation plan should include a mechanism for tracking the trade

school and community college scholarship students as they fulfill their academic obligation and for reporting to the NRC.

4. State whether or not these scholarships are contemplated as an integrated element of a State or regional strategic plan including innovative approaches covering such arrangements as consortia, partnerships with other institutions (including Minority Supporting Institutions), shared or distance learning programs, etc. Post-Secondary Minority Institutions are listed at: http://www.ed.gov/about/offices/list/ocr/edlite-minorityinst.html.
5. 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 grant (a written agreement or letter is required with the application).
   Institutions must agree to require individual trade school and community college scholarship students to accept the service agreement terms as defined in this FOA. (See Scholarship, Fellowship and Trades Service Agreement at http://www.nrc.gov/about-nrc/grants.html). **Institutions cannot impose additional requirements to scholarship recipients beyond the NRC Service Agreement.**

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.

* If the program description exceeds **five (5) pages,** the application will not be reviewed or considered for award.

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, including faculty development candidates, involved in carrying out the proposal, including recent relevant publication references. **Any CV that exceeds 2 pages will not be reviewed or considered for award.**

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.

SF-424 Section A – Budget Summary: Fill in "**31310020K0002**" 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 cost 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.

G. Audit Report

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

3.B. 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 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.

3.C. 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.

Failure to follow the instructions included in this FOA will result in your application not being reviewed or considered for award.

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

4. 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."

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

The NRC assures nondiscrimination in NRC conducted and Federal financially assisted programs and activities. The NRC's Office of Small Business and Civil Rights (SBCR) provides applicants/recipients with direction, guidance and technical assistance. SBCR also monitors program activities, conducts compliance reviews, investigates complaints, enforces violations and submits reports to Federal oversight agencies.

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*.

5.A. Provide Public Notification

Recipients will 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 LEP Guidance FR Doc 04-4672.)

- Participate in mandatory NRC Compliance Reviews.
- Participate in pre- and post-award compliance reviews.

5.B. Pre-Award Compliance Review

A pre-award compliance review (typically a desk-audit) must be conducted prior to award of NRC financial assistance. Applicants and recipients are required to complete NRC Form 781 Parts A, B, and C. If a determination cannot be made from the submitted data, SBCR will take steps to request additional information, which could include conducting an on-site audit or inspection. If, during the pre-award review, an item of non-compliance is found, an award may be executed with language indicating that the awardee is under a 60-day SBCR periodic review.

5.C. Post-Award Audit

Post-award compliance reviews will be based on desk audits and input from advocacy groups, community organizations, and results from ongoing research to identify recipients that should be selected to undergo an on-site audit. The following criteria will be used to help identify recipients for a post-award compliance on-site audit:

- Areas of “questionable” compliance identified in a desk audit;
- Issues raised in a complaint or identified during a complaint investigation (not covered in the scope of the investigation);
- Noncompliance issues raised;
- Amount of program funding ($100K or greater), or size and complexity of the project;
- Geographical areas the agency wishes to target because of known problems beneficiaries are experiencing;
- Problems identified to the agency by other civil rights agencies;
- Problems identified to the agency by community organizations or advocacy groups that are familiar with actual incidents to support their concerns;
- Issues frequently identified as problems faced by program beneficiaries;
- Issues targeted in the agency's strategic plan;
- Problems identified to the agency by its block grant recipients; and/or
- Proximity of the recipient to NRC offices.

Post-award compliance (on-site) audits (sampling not to exceed 10%) encompass a broad review of recipients’ programs and practices to determine actual compliance with regulations, and include:

- Civil rights implementation and enforcement policies and practices;
- Statistical evidence by racial and ethnic minorities based on the recipient’s: (a) staffing patterns, (b) beneficiary program participation rates, and (c) rejection rates;
- Applications or interview materials related to program participation or selection;
- Demographic make-up of the affected community or potential participants;
- Actions to educate the public and affected communities, particularly LEP individuals;
- Any discrimination complaints lodged against the recipient;
- Auxiliary aids, reasonable accommodations, facility accessibility; and

- Any previous findings of compliance or noncompliance related to the recipient.

Post-award compliance (on-site) audits will include:

- Interviews of recipient's officials, representatives, participants or beneficiaries; and review recipients' data collection and analysis used to assess compliance.
- SBCR will issue a written report stating whether or not the institution is in compliance with Federal Civil Rights Laws and certifying eligibility to receive an award. The report includes recommendations for achieving compliance if any deficiencies are identified.
- Designate Equal Opportunity Coordinators
- Appoint Coordinators (e.g., Title VI and IX, Disability, Age) in order to:

    - Inform those eligible to participate in programs and activities about all available services and their rights under applicable Federal civil rights regulations;
    - Collect data on who is being served by the programs and activities offered;
    - Monitor compliance and alerting recipient officials of any complaints or noncompliance issues that require action;
    - Plan, develop, and implement periodic Equal Opportunity civil rights training;
    - Maintain records and report compliance to SBCR/Outreach and Compliance Coordination Program (OCCP) as required by Agency regulations that are (1) OMB approved and (2) statute requires information/data collections; and
    - Ensure prompt corrective action has been taken to adequately address any deficiencies.

5.D. Submit Compliance Reports

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

5.E. Provide Civil Rights Training

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.

5.F. Establish Complaint Process

Establish procedures for "processing and disposition" of discrimination complaints. Maintain 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.

5.G. Technical Assistance

Technical assistance is provided by SBCR to assist stakeholders with understanding and complying with regulations. Links are provided to the U.S. Department of Justice website and the following NRC regulations:

- 10 CFR Part 4--NONDISCRIMINATION IN FEDERALLY ASSISTED PROGRAMS OR ACTIVITIES RECEIVING FEDERAL FINANCIAL ASSISTANCE FROM THE COMMISSION Activities Receiving Federal Financial Assistance From the Commission
- 10 CFR Part 5--NONDISCRIMINATION ON THE BASIS OF SEX IN EDUCATION PROGRAMS OR ACTIVITIES RECEIVING FEDERAL FINANCIAL ASSISTANCE
- 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

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

6. 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 no longer provides electronic copies of award/modification documents via email.

NRC uses a web portal, FedConnect, to provide official documents. 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

Failure to follow the instructions included in this FOA may result in your application not being considered further for award.

1. 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 following criteria items must be addressed and clearly labeled.** These items are used to evaluate applications using the corresponding weighted value. The highest ranked applications will receive priority consideration for award within the available funding. The selecting official makes final award recommendations.

Scholarship and Fellowship Program

1. Capacity and ability of the institution to effectively conduct the program including quality and feasibility of the recruitment and marketing strategies. (**25 points**)
2. Type and degree of proposed student support (i.e., mentoring or advisor assistance). Including quality of technical programs for scholars and fellows. (**25 points**)
3. Feasibility and completeness of an evaluation plan to measure the effectiveness of the scholarship or fellowship program. (**15 points**)
4. Institutional support for the program and plans for sustainability, as well as number and quality of students that will be served by the program. (**25 points**)
5. Innovation demonstrated through establishment of consortia or partnerships with other institutions to increase the universe of students reached through distance learning, shared courses, facility sharing, etc. (**10 points**)

BONUS - Is the proposed topic from the NRC listed area of interest as outlined in the Program Objectives section of this announcement? **(5 points)**

Faculty Development Program

1. Capacity and ability of the institution to effectively conduct the program, including quality and feasibility of the recruitment and marketing strategies. **(25 points)**
2. The qualifications, experience and C.V. of the (**new or existing**) faculty candidate. **(25 points) [If no faculty is identified, 10 points will be provided for this category]**
3. Feasibility and completeness of an evaluation plan to measure the effectiveness of the faculty development program. **(25 points)**
4. Institutional support for the program and plans for sustainability. **(25 points)**
5. **Cost Sharing or Matching contribution must be proposed in the form of a**

written agreement or commitment letter in response to this announcement. It 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. **(5 points)**

BONUS - Is the proposed topic from the NRC listed area of interest as outlined in the Program Objectives section of this announcement? **(5 points)**

Trade Schools and Community College Scholarship Program

1. Capacity and ability of the institution to effectively conduct the program including quality and feasibility of the recruitment and marketing strategies. (**25 points**)
2. Type and degree of proposed student support (i.e., mentoring or advisor assistance). Including quality of technical programs for scholars. (**25 points**)
3. Feasibility and completeness of an evaluation plan to measure the effectiveness of the scholarship program. (**15 points**)
4. Institutional support for the program and plans for sustainability as well as number and quality of students that will be served by the program. (**25 points**)
5. Innovation demonstrated through establishment of consortia or partnerships with other institutions to increase the universe of students reached through distance learning, shared courses, facility sharing, etc. (**10 points**)

2. Review and Selection Process

2.A. Review Process

The NRC conducts an initial administrative review to determine that the proposal is complete and complies with the announcement's requirements. Ineligible applications or non-responsive applications may not be reviewed. The recipient may withdraw its application at any time.

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.

Applications are peer-reviewed and rated using the evaluation criteria and point values provided above (see Section V.1). Both Federal and non-Federal experts may be used in this process. Peer reviewers' identities remain confidential. All peer reviewers must sign a conflict of interest form prior to acceptance as a reviewer. The applications and associated materials made available to reviewers, including the discussions that take place during review meetings are strictly confidential. Individual peer reviewers' scores are averaged and rated prior to being presented to the selecting official.

2.B. Selection Process

The highest ranked applications will receive priority consideration for award within the limits of available funding. The selecting official makes final award recommendations. The selecting official generally recommends funding in rank order unless a particular

recipient/selectee:

- Submits an application that supports geographic diversity,
- Submits an application that ensures diversity in technical disciplines,
- Demonstrated prior award performance issues,
- Received multiple prior NRC grant awards, or
- Has current awards have 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.

3. Anticipated Effective Date

The estimated award date for this Funding Opportunity Announcement is 09-30-2020.

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 performance. 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

Federal Financial Reports (SF-425) are semi-annually, for the periods ending March 31 and September 30, or any portion thereof, regardless of the award date. Reports are due within 30 calendar days following the end of the reporting period and must be submitted through FedConnect. The SF-425 form and instructions are available at Grants.gov.

PERFORMANCE PROGRESS REPORTS

Performance Progress Reports 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.

- **Scholarship and Fellowship Program**
  Performance reports must be submitted annually, for the periods ending September 30, or any portion thereof, regardless of the award date. Reports are due within 30 days following the end of each reporting period and must be submitted through FedConnect. Click the link to find the required format and information when submitting the NRC Performance Progress Report (PPR). Failure to submit progress reports could result in suspension of the grant ASAP account and could affect other awards or potential new grant recommendations with the NRC.

- **Faculty Development**
  Performance reports must be submitted semi-annually, for the periods ending March 31 and September 30, or any portion thereof, regardless of the award date. Reports are due within 30 days following the end of each reporting period and must be submitted through FedConnect. Click the link to find the required format and information when submitting the NRC Performance Progress Report (PPR). Failure to submit progress reports could result in suspension of grant ASAP account and could affect other awards or potential new grant recommendations with the NRC.

- **Trade School and Community College Scholarships**
  Performance reports must be submitted semi-annually, for the periods ending March 31 and September 30, or any portion thereof, regardless of the award date. Reports are due within 30 days following the end of each reporting period and must be submitted through FedConnect. Click the link to find the required format and information when submitting the NRC Performance Progress Report (PPR). Failure to submit progress reports could result in suspension of grant ASAP account and could affect other awards or potential new grant recommendations with the NRC.

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

OMB directed Federal grant awarding agencies to report on specific performance metrics and evaluation methodologies for any education related grant program activities.

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.

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, 141b, and 243 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. 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, 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) under the authorization 42 U.S.C. § 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 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.

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 Part 200 Contract Provisions for Non-Federal Entity Contracts Under Federal Awards

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 Recipient to 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.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 period of performance extension, 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 NRC's authority.

No-Cost Extensions

No-Cost Extension requests that are not received 30 days prior to the grant expiration date will result in requests being disapproved by the NRC Program Manager and Grants Officer. Requests must explain the reason(s) for delay in completion of the project as well as how the remaining funds will be spent during the new requested period of performance. One No-Cost Extension request may be granted for up to one year pending review and approval. No more than one No-Cost-Extension will be allowed per grant. PIs with an active grant with a No-Cost Extension will not receive a new grant in the same grant type until the existing grant expires.

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 § 200.205; 2 CFR 200.113 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.

(5) The recipient agrees that, unless authorized by the Grants Officer, it will not knowingly enter into any subaward or contracts under this grant/cooperative agreement with a person or entity that is not included on the System for Award Management (SAM) (https://www.sam.gov).

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 § 200.473-474.

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

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

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.

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 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 a 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 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 Recipient 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 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, NRC may ask the Recipient 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 U.S.C. § 105.

Record Retention and Access

Recipient shall follow established provisions in 2 CFR §§ 200.333-337.

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.

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.

e. 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 §§ 200.338-342.

Performance and Financial Monitoring and Reporting - 2 CFR §§ 200.327-329

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 §§ 200.330-332 for Subrecipient Monitoring and Management.

FEDERAL FINANCIAL REPORT

Federal Financial Reports (SF-425) are semi-annually, for the periods ending March 31 and September 30, or any portion thereof, regardless of the award date. Reports are due within 30 calendar days following the end of the reporting period and must be submitted through FedConnect. The SF-425 form and instructions are available at Grants.gov.

PERFORMANCE PROGRESS REPORTS

The performance (technical) reports indicated below are subject to 2 CFR §200.328. Performance Progress Reports must 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 must be included.

- **Scholarship and Fellowship Program**
  Performance reports must be submitted annually, for the periods ending September 30, or any portion thereof, regardless of the award date. Reports are due within 30 days following the end of each reporting period and must be submitted through FedConnect. Click the link to find the required format and information when submitting the NRC Performance Progress Report (PPR). Failure to submit progress reports can result in suspension of grant ASAP account and could be flagged for other awards or potential new grant recommendations with the NRC.

- **Faculty Development**
  Performance reports must be submitted semi-annually, for the periods ending March 31 and September 30, or any portion thereof, regardless of the award date. Reports are due within 30 days following the end of each reporting period and must be submitted through FedConnect. Click the link to find the required format and information when submitting the NRC Performance Progress Report (PPR). Failure to submit progress reports can result in suspension of grant ASAP account and could be flagged for other awards or potential new grant recommendations with the NRC.

- **Trade School and Community College Scholarships**
  Performance reports must be submitted semi-annually, for the periods ending March 31 and September 30, or any portion thereof, regardless of the award date. Reports are due within 30 days following the end of each reporting period and must be

submitted through FedConnect. Click the link to find the required format and information when submitting the NRC Performance Progress Report (PPR). Failure to submit progress reports can result in suspension of grant ASAP account and could be flagged for other awards or potential new grant recommendations with the NRC.

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. The final PPR (for Scholarship and Fellowship, awards) must include the names of all students with up to date contact information (mailing address, telephone/cell phone, email address). All final reports must be submitted through FedConnect.

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.

Unless otherwise authorized in 2 CFR Part 200 or by special award condition, any extension of the award period can only be authorized by the Grants Officer in writing. Assurances of funding from anyone other than the Grants Officer shall not constitute authority to obligate funds for programmatic activities beyond the expiration date.

The NRC Grant Officer may authorize a no cost extension of the period of performance. The recipient must submit a no cost extension request no less than 30 days prior to the award end date. Any request for a no cost extension after the grant has expired will not be approved. Any modification of the award to increase funding and/or to extend the period of performance is at the sole discretion of the NRC.

Incremental Funding

Additional funding for this award is contingent upon the availability of appropriated funds, satisfactory performance, 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. NRC is not obligated to reimburse the recipient for expenditures in excess of the total funds obligated by NRC. The recipient is not authorized to continue performance 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: http://harvester.census.gov/fac/collect/ddeindex.html;
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 NRC or other designated officials for review or audit.

III. Programmatic Requirements

The recipient is responsible for providing documentation to the NRC that tracks each student's progress in achievement of the academic program for which Federal funds were provided. This includes: (1) ensuring that the service agreement is signed by the student, institution coordinator and countersigned by the NRC Program Manager **prior** to providing support; (2) providing the NRC with student contact information upon student entry into the program, upon completion or withdrawal from the program, and upon request by the NRC; and (3) monitoring the student's fulfillment of the service agreement for the duration of the award. The institution shall immediately notify the NRC if a student is not fulfilling the academic program or the service agreement.

Students have up to 6 months after graduation to secure nuclear related employment. If a student does not obtain nuclear related employment in the 6-month timeframe, the student can request a waiver, or the NRC will seek repayment of funds.

Failure to complete service for any reason is a breach of the NRC Service Agreement. The NRC will work with students to assist them, to the extent possible, to avoid a breach

and fulfill the service obligation. A recipient should immediately contact the NRC if a situation arises in which a student is potentially unable to fulfill his/her service obligation. Individuals who breach their NRC Service Agreement contract are subject to monetary damages as follows:

(1) Failure to complete degree program – Institutions that support students who are dismissed from school for academic or disciplinary reasons or who voluntarily terminate the degree program before graduation from for which the support was awarded will be in breach of the service agreement and will be liable to the NRC for repayment of all NRC funds received by the students.

(2) Students who for any reason fail to comply with the terms and conditions of deferring or postponing the service obligation for nuclear related employment or who for any reason fail to begin or complete their service obligation after completion of degree program, will be in breach of their service obligation contract and will be liable to the NRC for repayment for all NRC funds paid to them on their behalf.

At this time, the amount owed to the NRC is a valid debt of the Federal government subject to all laws and provisions governing the administration of the debt. In accordance with Federal regulations, if payment is not received by the NRC within 30 days from notification of indebtedness, the debt becomes past due and will be subject to interest, penalties, and administrative charges incurred by the Federal government to service the debt. After 120 days of being past due, the debt will be referred to the Department of the Treasury for collection.

An installment agreement may be requested by the debtor if a single lump sum payment is not possible. An installment agreement can be up to 3 years in length and will include all applicable interest, penalties, and administrative charges incurred by the Federal government to service the debt. Failure by the debtor to meet the terms and conditions of the installment agreement will result in the debt being referred to the Department of the Treasury for collection and subject to the various collection actions administered by the Department of the Treasury.

The debtor may submit a request for an installment agreement to the NRC Office of the Chief Financial Officer at (301) 415-7554 or by email at Fees.Resource@nrc.gov. The request should include a justification to establish an installment agreement to repay the debt.

If a waiver is submitted by a student, NRC may waive, in whole or in part, the service obligation, upon determining that compliance by the student is impractical. Waiver requests must be submitted in writing including the reason the waiver is being sought and documentation evidencing that he/she attempted to secure nuclear related employment but was unable to do so. If the requested waiver is denied, a written request for payment may be issued to the student by the NRC under the provisions found in 10 CFR 15.21.

Grant Performance Metrics

The Office of Management and Budget requires all Federal Agencies providing funding for educational scholarships and fellowships as well as other educational related funding to

report on specific metrics. These metrics are part of the Academic Competitiveness Council's (ACC) 2007 report and specifically relates to Science, Technology, Engineering, and Mathematics (STEM) curricula.

As part of the OMB requirements indicated above (for metric reporting), the recipient shall address the following questions and submit responses with the required progress reports:

Scholarship Metrics:

1. How many students have been sponsored by NRC funding?

a. Response is the number of students, for this reporting period and cumulative to the grant.

2. How many students, supported by NRC funding, have received B.S. or equivalent degrees?

a. Response is the number of students, for this reporting period and cumulative to the grant.

3. How many students, supported by NRC funding, have accepted a job and are employed in the nuclear industry?

a. Response is the number of students, for this reporting period and cumulative to the grant.

4. How many students, supported by NRC funding, are continuing on to Graduate School in a field related to the nuclear industry?

a. Response is the number of students, for this reporting period and cumulative to the grant.

As part of the PPR, include the following information for each student supported under this award. The information must be provided in the format below:

Student Name	Estimated Graduation Date	Support in Years Required	Amount of Grant Funds Received Cumulative of award	Status	Comments/Place of work	Position Held at Employment	Is the position Nuclear Related?
	*month/day/year	*6 months for every full or Partial year		*Choose an option below	*If employed where does the student work?		
				Student	*If withdrawn - why and please include updated contact information below. And please indicate if funds were repaid		
				Employed - Not Nuclear			
				Employed - Nuclear			
				Withdrawn			

Update New Student Contact information (if changed)	
Address	
Phone	
Email	

Fellowship Metrics:

1. How many graduate students have been sponsored by NRC funding?

a. Response is the number of students, for this reporting period

and cumulative to the grant.

2. How many students, supported by NRC funding, have received M.S. or equivalent degrees?
a. Response is the number of students, for this reporting period and cumulative to the grant.

3. How many students, supported by NRC funding, have received Ph.D. or equivalent degrees?
a. Response is the number of students, for this reporting period and cumulative to the grant.

4. How many students, supported by NRC funding, have accepted a job and are employed in the nuclear industry?
a. Response is the number of students, for this reporting period and cumulative to the grant.

5. How many items have students produced, for example, Professional Journal articles, publications, patents, or conference reports?
a. Response is the type and number of items (not a bibliography), for this reporting period and cumulative to the grant.

As part of the PPR, include the following information for each student supported under this award. The information must be provided in the format below:

Student Name	Estimated Graduation Date	Support in Years Required	Amount of Grant Funds Received Cumulative of award	Status	Comments/Place of work	Position Held at Employment	Is the position Nuclear Related?
	*month/day/year	*6 months for every full or Partial year		*Choose an option below	*If employed where does the student work?		
				Student	*If withdrawn - why and please include updated contact information below. And please indicate if funds were repaid		
				Employed - Not Nuclear			
				Employed - Nuclear			
				Withdrawn			

Update New Student Contact information (if changed)	
Address	
Phone	
Email	

Trade School and Community College Scholarship Metrics:

1. How many students have been sponsored by NRC funding?
a. Response is the number of students, for this reporting period and cumulative to the grant.

2. How many students, supported by NRC funding, have received certification or are licensed in their field of study?

a. Response is the number of students, for this reporting period and cumulative to the grant.

3. How many students, supported by NRC funding, have procured employment in the nuclear industry?
a. Response is the number of students, for this reporting period and cumulative to the grant.

As part of the PPR, include the following information for each student supported under this award. The information must be provided in the format below:

Student Name	Estimated Graduation Date	Support in Years Required	Amount of Grant Funds Received Cumulative of award	Status	Comments/Place of work	Position Held at Employment	Is the position Nuclear Related?
	*month/day/year	*6 months for every full or Partial year		*Choose an option below	*If employed where does the student work?		
				Student	*If withdrawn - why and please include updated contact information below. And please indicate if funds were repaid		
				Employed - Not Nuclear			
				Employed - Nuclear			
				Withdrawn			

Update New Student Contact information (if changed)

Address	
Phone	
Email	

Faculty Development Metrics:

1. How many Faculty have been sponsored by NRC funding?
a. Response is the number of faculty sponsored, for this reporting period and cumulative to the grant.

2. How many items have the sponsored faculty produced, for example, Professional Journal articles, publications, patents, or conference reports?
a. Response is the type and number of items (not a bibliography), for this reporting period and cumulative to the grant.

Unsatisfactory Performance

Failure to perform the work in accordance with the terms of the award and maintain at least a satisfactory performance 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. 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.

IV. 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 orwhen 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 E.O.s 13230 and 13270, amended by E.O. 13316 and 13385, 13532, 13592, 13555, 13515, and 13621, NRC is strongly committed to broadening the participation of MSIs in its financial assistance program. NRC's goals include achieving full participation of MSIs in order to advance the development of human potential, strengthen the Nation's capacity to provide high-quality education, and increase opportunities for MSIs to participate in and benefit from Federal financial assistance programs. NRC encourages all applicants and recipients 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 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/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.

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