

The U.S. Department of Homeland Security (DHS)
Notice of Funding Opportunity (NOFO)
National Nuclear Forensics Expertise Development Program (NNFEDP)
Fiscal Year 2024 Nuclear Forensics Research Award (NFRA)

All entities wishing to do business with the federal government must have a unique entity identifier (UEI). The UEI number is issued by the System for Award Management (SAM) system.

UEI Updates in Grant Application Forms:

On April 4, 2022, the Data Universal Numbering System (DUNS) Number was replaced by a new, non-proprietary identifier requested in, and assigned by, SAM.gov. This new identifier is the UEI. Entities that had a DUNS Number were automatically assigned a UEI. New entities needing a UEI must register in SAM.gov at: <https://sam.gov/content/entity-registration>.

Additional Information can be found on Grants.gov:
grants.gov/forms/forms-development/planned-uei-updates

Grants.gov registration information can be found at:
grants.gov/applicants/applicant-registration

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A. Program Description

1. Issued By

U.S. Department of Homeland Security (DHS), Countering Weapons of Mass Destruction (CWMD) Office, Systems Support Directorate (SSD), Research & Development Division

2. Assistance Listing Number

97.130

3. Assistance Listing Title

National Nuclear Forensics Expertise Development Program

4. Funding Opportunity Title

Fiscal Year (FY) 2024 Nuclear Forensics Research Award (NFRA)

5. Funding Opportunity Number

DHS-24-CWMD-130-NFRA-001

6. Authorizing Authority for Program

Sections 1923(a)(12) and 1926 of the Homeland Security Act of 2002, Pub. L. No. 107-296 (codified as amended at 6 U.S.C. §§ 592(a)(12), 596).

7. Appropriation Authority for Program

Department of Homeland Security Appropriations Act, 2024, Pub. L. No. 118-47, Title IV, Research, Development, Training, and Services, Countering Weapons of Mass Destruction Office, Research and Development.

8. Announcement Type

Initial

9. Program Category

Radiological/Nuclear

10. Program Overview, Objectives, and Priorities

a. Overview

The National Technical Nuclear Forensics Center (NTNFC) was established on October 1, 2006, within the U.S. Department of Homeland Security (DHS). NTNFC was tasked to

provide national-level integration, centralized planning, and stewardship for the National Technical Nuclear Forensics (NTNF) community. Nuclear forensics is an important element in a state's nuclear security architecture and serves to address the threats of nuclear smuggling, nuclear proliferation, and nuclear terrorism. The aim of a nuclear forensic examination is to obtain information on the processing history of the material (including its method and date of production) and on its intended use. A top priority of NTNFC's stewardship mission is to lead United States Government (USG) pre- and post-detonation efforts by addressing the enduring challenge of sustaining a preeminent Nuclear Forensics (NF) workforce.

The National Nuclear Forensics Expertise Development Program (NNFEDP) works to build a nuclear forensics workforce of recognized technical experts and leaders through fostering scholastic and research collaboration between and among academia, the national and defense laboratories, and the National Technical Nuclear Forensics (NTNF) Interagency, as required by law. The implementation of the NNFEDP fulfills the requirements outlined in Homeland Security Act of 2002, as amended. This program also aligns with Goal 1 of the DHS Strategic Plan fiscal years 2020-2024 [[Department of Homeland Security's Strategic Plan for Fiscal Years 2020-2024 | Homeland Security \(dhs.gov\)](https://www.dhs.gov/strategic-plan)]: "Counter Terrorism and Homeland Security Threats" and Objectives 1.2: "Detect and Disrupt Threats," and 1.4: "Counter Weapons of Mass Destruction and Emerging Threats."

To accomplish this mandate, the following initiative has been implemented: The Nuclear Forensics Research Award (NFRA) supports the establishment of a team of faculty, students, and technical staff at the national or defense laboratories to conduct research in the field of nuclear forensics.

b. Goals, Objectives, and Priorities

1. *Recruit and produce a new generation of leaders and technical experts in a wide range of fields relevant to nuclear forensics.*

The NFRA is designed to link qualified students with a nuclear forensics-relevant research project, that will serve as the basis of his or her studies and be completed through work at a partner laboratory and the student's home university. Through faculty and laboratory staff participation, a collaborative research process is established through which this student is jointly mentored, further enhancing his or her understanding of the nuclear forensics field.

The NFRA can sponsor a minimum of two graduate and/or two undergraduate students. The mix of students should be defined by the academic applicants based on the nature of the proposed research. Graduate fellow award includes full tuition and stipend for the three-year period of performance. Awardees may propose at the end of the original period of performance an additional scope for funding for up to two

additional years. Any additional funding beyond the original three-year period of performance would be provided through continuation awards, depending on availability of funds and other requirements for continuation awards. Undergraduate awards support students in their junior/senior year of studies.

To maintain eligibility for the undergraduate scholarship and/or graduate fellowship, all students must meet requirements outlined in the Terms of Appointment (TOA) in Appendix A.

2. *Enhance the ability for universities and the national and defense laboratories to work collaboratively on advanced research that increases the body of knowledge in the field of nuclear forensics.*

The NFRA is designed to facilitate a multi-year process to build long-term collaborative partnerships among the laboratories, universities, and the next generation of nuclear forensics experts. These partnerships will provide universities opportunities to participate in research that directly supports USG NF strategic goals.

The Faculty Principal Investigator (PI) will directly oversee the university's participation in the research project and will make joint decisions with the Laboratory PI concerning the path of the project. Multi-university proposals with a collaborative laboratory partner are allowable under the NFRA structure.

Key Personnel. Key Personnel under the NFRA include the university faculty PI and identified graduate and undergraduate students. All Key Personnel must be U.S. Citizens at the time of application and be able to obtain and maintain a Q security clearance from the U.S. Department of Energy.

Obligations. Upon graduation, the named graduate fellow is obligated to serve for two years in a postdoctoral or staff position at a national or defense laboratory or federal department or agency in the field of nuclear forensics.

In accordance with the Homeland Security Act of 2002, should the undergraduate or graduate student not comply with the TOAs, he or she must repay the scholarship or fellowship in total to the U.S. Government. If the student fails to maintain a high level of academic standing, who is dismissed for disciplinary reasons, or who voluntarily terminates academic training before graduation from the program funded by NFRA, the undergraduate or graduate student must repay the U.S. Government within one year. The scholarship or fellowship total to be repaid includes both the stipend and tuition. Specific to graduate fellows, except in the case of death or disability, should a graduate fellow fail to begin or complete a postdoctoral position at a laboratory or federal agency, the fellow must repay the U.S. Government the total amount of tuition and stipend with interest per the prevailing rate of graduate student loans at the time the student received the award. More information can be found in Appendix A.

Technical Priorities. NF addresses a diverse set of topics related to the collection, analysis, and evaluation of pre-detonation (intact) and post-detonation (exploded) radiological or nuclear materials, devices, and debris, as well as the immediate effects created by a nuclear detonation. Each application will be evaluated based on the information provided in Evaluation Criteria under the Application Review Information section. Technical Mission Areas (TMAs) included below, reflect the technical priorities of the NNFEDP and NFRA, and should be taken into consideration when developing a research project.

TMA 1. Pre-Detonation Material and Device Signatures

Physical, chemical, and isotopic characteristics of a radiological or nuclear material can be used to determine aspects of the material's history and are therefore important to nuclear forensics. In general, a nuclear forensic signature is a set of measurable characteristics that points to the origin or history of a sample and may specifically include or exclude the sample from a specific class or category of materials. Physical signatures may include morphology, texture, size, and shape of a material or parts of the device. Chemical signatures may include the elemental or molecular form of the material (e.g., uranium dioxide, plutonium oxalate) and abundances of impurities in the sample. Isotopic signatures reflect the isotopic composition of a sample (indicating its enrichment, burnup, intended or actual use) and may be used to derive the time since the material was last processed chemically. The R&D focus in these areas includes production, acquisition, and/or retrieval of radiological and nuclear materials of historical interest; laboratory analysis of the materials to document their characteristics; development of production and processing models relating processing parameters (chemical, physical, engineering, machining) to observed product characteristics; assessment of which characteristics persist through (or are modified by) various stages of the production, storage, and transport processes; development of libraries of material characteristics; and ultimately evaluation of material characteristics (or combination of characteristics) for their uniqueness or value as nuclear forensics signatures.

TMA 2. Pre-Detonation Analysis Methods and Tools

While current methods of sample analysis and data interpretation provide a highly sophisticated level of material characterization and classification, even more advanced methods are required to identify new signatures and enable new insights into material provenance. R&D priorities in this area include development of new laboratory analytical methods for determination of spatially and/or temporally distinct features in radiological and nuclear materials; analytical methods that enable determination of new (i.e., previously unrecognized) characteristics and signatures in radiological/nuclear materials; mathematical and statistical methods to identify and evaluate correlated material characteristics; modeling and simulation tools to predict forward and inverse relationships between physical/chemical material production processes and measurable characteristics; data visualization methods to enable improved interpretation of data relationships; and data management and knowledge capture tools to enable efficient storage, retrieval, and interpretation of diverse sets of material information.

TMA 3. Post-Detonation Material Collection and Analysis Methods

Post-detonation material R&D explores novel methods and advancements in the ability to collect samples of material, analyze radioactive debris, and identify signatures from debris analysis. The overall goal is to obtain accurate debris characterization more rapidly than is currently possible, and to do so in all environments and conditions.

Chronologically, this starts with targeted airborne and ground collection methods that are robust under a wide variety of adverse conditions. Methods with the potential to enable remote characterization and quantification of airborne debris are of interest, as are methods that combine collection and analysis, and field deployable systems, with real-time analysis capability. Following sample collection, improved methods are sought for rapid dissolution and pre-concentration of post-detonation debris using environmentally friendly, potentially field-deployable, techniques on a reasonable time scale. The R&D focus for sample analysis includes non-destructive analytical techniques; innovations that rapidly identify and quantify elemental and isotopic constituents (major, minor, and trace) in fresh radioactive fallout debris; and fundamental phenomenology of laser spectroscopy, mass spectrometry, and associated ionization methods. Improvements are also sought in data handling methodologies for compiling, assessing, and interpreting large sets of data; advancing the treatment of data uncertainties; and improving databases of physical constants, such as nuclear cross sections, decay branching ratios, or nuclear energy levels relevant to nuclear forensic analysis.

TMA 4. Post-Detonation Prompt Signal Analysis

Post-detonation prompt signal analysis explores R&D that may enable accurate knowledge of the specifics of a nuclear device (e.g., special nuclear material type and mass, device sophistication, etc.) after a detonation. Ideally this knowledge would be available in as short a time as possible with a high degree of confidence. This topic investigates basic physical research on the prompt signatures of nuclear explosive events, such as novel methods for yield determination, device reaction history, or the radiation outputs of these nuclear explosions. Research could focus on the understanding of unique identifiers of these explosions, measurements of these identifiers, or other topics. In this context, prompt signatures indicate those which can be measured instantaneously to within a few days after the event. These signatures are generally separate from radiochemical signatures.

c. Alignment to Program Purpose and DHS Strategic Plan

The Program aligns to the DHS Strategic Plan Fiscal Years 2020-2024 [[Department of Homeland Security's Strategic Plan for Fiscal Years 2020-2024 | Homeland Security \(dhs.gov\)](#)]; Goal 1: Counter terrorism and homeland security threats; Objective 1.4: Counter weapons of mass destruction and emerging threats. In addition, the Program aligns to the following: Nuclear Forensics and Attribution Strategic Plan for Fiscal Years 2022-2026; Goal 3: Employ and improve a robust, enduring, and flexible capability to conduct Technical Nuclear Forensics (TNF) measurements and analyses to communicate timely results with uncertainties; Objective 3.6: Sustain and improve capabilities for the current and next generation of nuclear forensics experts to perform effective TNF analyses; Goal 4: Sustain and improve an enduring and flexible capability to evaluate TNF analysis results and convey discriminating, defensible findings in assessments

reports; Objective 4.6: Sustain and improve the evaluation capabilities of current nuclear forensics evaluation experts and train next generation of evaluators.

11. Performance Measures

The NNFEDP adheres to program measurement and evaluation standards in accordance with CWMD and other Government policies and guidance.

Government Program Managers and staff will monitor progress toward goal achievement through periodic program reviews and reviews of required reports (template provided post award). Proposal submissions must clearly define immediate project targets and year end project milestones for which performance can be qualitatively and quantitatively measured. Progress toward project milestones, cost, and schedule will be considered during project reviews in determining project continuances.

Information from proposal submissions and required reports may also be used for DHS-led NNFEDP evaluation, which may be carried out by a third-party on behalf of the Program Office or DHS.

B. Federal Award Information

1. Available Funding for the NOFO

\$1,800,000

Section 1923(a)(12)(B)(i)-(ii) of the Homeland Security Act of 2002 (6 U.S.C. § 592(a)(12)(B)(i)-(ii)) requires DHS make available funding for undergraduate study student scholarships for up to 4 years per student and doctoral study student fellowships (graduate) for up to 5 years. DHS is making funding available under this NOFO for these categories up to the amount indicated above per award.

2. Projected number of Awards

Up to 6 awards

3. Maximum Award Amount

\$300,000 per year for 3 years (\$900,000)

4. Period of Performance (PoP)

3 Years; funded annually.

- a.** For awards solely for undergraduate scholarships, the default PoP is up to three years, but if the undergraduate student graduates before the end of the three full years, the

PoP will be considered to have ended at the time of graduation, and any closeout requirements will begin at the time of graduation, unless the university introduces another undergraduate student to complete the research project. The undergraduate who is to replace the departed student in the project, is subject to the same requirement (i.e., junior/senior level of their undergraduate studies).

5. Projected Period of Performance Start Date(s)

09/30/2024

6. Projected Period of Performance End Date(s)

09/29/2027

a. Continuations to the period of performance for this program are allowed. Recipients may request to continue their project a maximum of two additional years. If the PoP is continued, DHS will provide additional funding to cover each additional year. Any additional funding for a possible continuation award, which would extend the overall PoP, would be similarly limited to \$300,000 per year for up to 2 additional years (totaling \$600,000 in possible continuation funding). See Section H.

b. No-cost extensions (NCE)s to the period of performance for this program are allowed. Recipients may request a NCE to complete all project activities. The request must be submitted 60 days prior to the expiration of the performance period. Requests for NCEs are subject to approval by DHS. See Section H.

7. Projected Budget Period(s)

Federal awards under this NOFO are anticipated to have multiple budget periods under the period of performance. This NOFO only provides funding for the first budget period and any subsequent funding for additional budget periods will be provided through renewal awards. Funding for renewal awards beyond the initial budget period is subject to the availability of funding, program authority, satisfactory performance, compliance with the terms and conditions of the federal award, and a CWMD determination that continued funding is in the best interest of the federal government. A recipient may only carry forward unobligated balances from one budget period to a subsequent budget period with prior written approval of CWMD.

a. Projected Number of Budget Periods

3

b. Projected Budget Period Length

One Year

c. Projected First Budget Period Start Date

09/30/2024

d. Projected First Budget Period End Date

09/29/2025

8. Funding Instrument Type: Cooperative Agreement

The regulation at 2 C.F.R. § 200.1 defines a cooperative agreement as, in relevant part, a legal instrument of financial assistance between a federal awarding agency and a recipient that, consistent with 31 U.S.C. §§ 6302-6305, is used to enter into a relationship the principal purpose of which is to transfer anything of value from the federal awarding agency to the recipient to carry out a public purpose authorized by a law of the United States (see 31 U.S.C. § 6101(3)) and not to acquire property or services for the Federal Government's direct benefit or use.

The Program Office will have substantial involvement in the administration of the award, including tracking of faculty and student participants, publications, patents, and research progress. The tracking involved here is above and beyond routine oversight responsibilities during the performance period to ensure that the objective as well as terms of conditions of the award are accomplished. Specifically, the Program Office provides technical guidance and reviews the substantive research development and progress on an ongoing basis. The Program Office is also substantially involved in establishing research partnership between faculty and student participants with defense and national laboratories, as well as directing and facilitating the selection of research partnership with national and defense laboratories. The Program Office closely manages and monitors the substantive research development, collaboration with national and defense laboratories, and may direct or redirect because of interrelationship with other research projects or national or defense laboratories. The recipient will be required to maintain close and regular interaction with the Program Office, including a) quarterly and annual reports providing updates on the research, undergraduate and/or graduate student progress, and any issues related to students, universities, or laboratories involved in the program, and b) virtual meetings, as requested to discuss award progress.

Note: Cooperative agreements fall under the umbrella of grants (i.e., they are grants with more sponsor involvement). For the purposes of this NOFO the term "grant" is used throughout for brevity instead of "cooperative agreement."

C. Eligibility Information

1. Eligible Applicants

The following entities below are eligible to apply for this NOFO:

- Private institutions of higher education
- Public & State controlled institutions of higher education

IMPORTANT: Academic recipients will be required to collaborate with national or defense laboratories for this award. DHS will assist academic recipients with establishing partnership with a U.S. Department of Energy national laboratory or Department of Defense laboratory, if such partnership between the entities does not currently exist. Laboratory partners will be sponsored directly by DHS separately.

Historically Black Colleges and Universities and Minority Serving Institutions are strongly encouraged to apply for this NOFO.

2. Applicant Eligibility Criteria

The following listed below are organizations that are eligible and encouraged to submit a proposal:

- Universities. Universities accredited by a U.S. Department of Education-recognized accrediting agency, and having a campus located in the United States or U.S. territories.
- Organizations are referred to as academic institutions for the purposes of this NOFO.
- All non-academic institutions regardless of profit or non-profit status are ineligible to apply.
- **For applicants solely sponsoring graduate students:** Universities must have doctorate-level programs in related chemistry fields (such as, analytical, geo- or radiochemistry); nuclear physics or engineering; computer science, physics, mathematics, geology, or materials science. Applications must include active participation from these doctoral programs. Applications must propose a minimum of two graduate students for funding.
- **For applicants sponsoring graduate and undergraduate students:** Universities must have doctorate-level programs in related chemistry fields such as, analytical, geo- or radiochemistry; nuclear physics or engineering; computer science, physics, mathematics, geology, or materials science. Applications must include active participation from these doctoral programs. Applications must propose a minimum of two graduate students for funding and a minimum of two undergraduate students who are in their junior/senior year for funding.
- **For applicants solely sponsoring undergraduate students:** Universities must have undergraduate programs in related chemistry fields such as, analytical, geo- or radiochemistry; nuclear physics or engineering; computer science, physics, mathematics, geology, or materials science. Applications must include active participation from these undergraduate programs. Applications must propose a minimum of two undergraduate students who are in their junior/senior year for funding.

DHS will not consider applications that do not adhere to one or more of the following requirements:

- **Citizenship.** All Key Personnel must be U.S. citizens at the time of proposal submission.
- **Clearance Eligibility.** All Key Personnel must be eligible to obtain and/or maintain a Q clearance if requested by the Program Office.

3. Subawards and Beneficiaries

a. Subaward allowability

Subawards are not allowed.

b. Subrecipient Eligibility

N/A

c. Beneficiaries or Participants

This NOFO and any subsequent federal awards create no rights or causes of action for any participant or beneficiary.

4. Other Eligibility Criteria/Restrictions

DHS will not consider applications that do not adhere to one or more of the following requirements:

A. Deadlines. DHS will not accept late applications. Without exception, applications must be received by Grants.gov on or before the deadline in this announcement or they will not be considered.

B. Application relevance. Applications that do not address the purpose of this announcement will not be considered. This NOFO contains four TMAs as stated in section A.10.b. Applications that are determined noncompliant with these TMAs will not be considered for technical evaluation.

C. Compliance and completeness. Applications must substantially comply with the application submission instructions and requirements in this announcement, or they will not be considered.

D. Funding Limits. Applications exceeding the funding limits for a given topic will not be considered.

E. Period of Performance. Applications must propose an initial PoP not to exceed 3 years. Applications that propose an initial PoP exceeding 3 years will not be considered.

F. Principal Investigator (PI) Limit. None specified.

G. Limit on Number of Proposals per Organization. None specified.

H. Limit on Number of Proposals per PI. One (1). Furthermore, an individual researcher may not be named as a participant on more than one proposal submitted to this NOFO. This limitation includes participation as a PI, co-PI, senior researcher, student, consultant, or any other role for which financial remuneration is requested.

I. Terms of Appointment (TOAs). Applications that do not identify the required number of undergraduate and/or graduate students for participation will not be considered. Applications for only graduate student fellowships must propose at least two graduate students for funding; applications for graduate fellowships and undergraduate scholarships must propose at least two graduate students for funding and at least two undergraduate students in their junior/senior year for funding; and applications for only undergraduate scholarships must propose at least two undergraduate students in their junior/senior year for funding.

IMPORTANT NOTE: Applicants (i.e., academic institutions) are allowed to have students sign the TOA at the time of award, instead of at the time of application.

5. Cost Share or Match

There is no cost share or match for awards issued under this NOFO.

D. Application and Submission Information

1. Key Dates and Times

a. Application Start Date

05/30/2024

b. Application Submission Deadline

08/14/2024 at 5:00PM EDT

All applications must be received by the established deadline.

c. Anticipated Funding Selection Date

No later than 09/09/2024

d. Anticipated Award Date

No later than 09/30/2024

e. Other Key Dates

Event	Suggested Deadline for Completion
Obtaining a valid EIN	Four weeks before actual submission deadline
Creating an account with login.gov	Four weeks before actual submission deadline
Registering in the System for Award Management (SAM) at SAM.gov and obtaining a Unique Entity Identifier or renewing SAM registration	Four weeks before actual submission deadline
Starting application in <i>Grants.gov</i>	Two weeks before actual submission deadline

2. Agreeing to Terms and Conditions of the Award

By submitting an application, applicants agree to comply with the requirements of this NOFO and the terms and conditions of the award, should they receive an award.

3. Address to Request Application Package

Application forms and instructions are available at Grants.gov. To access these materials, go to <http://www.grants.gov>.

For a hardcopy of the full NOFO, please write a request to:

Shareef Prater

Grants Officer

Grants and Financial Assistance Division

Department of Homeland Security

Email: Shareef.Prater@hq.dhs.gov

Phone: 202.770.4776

Applications will be processed through the Grants.gov portal.

4. Unique Entity Identifier and System for Award Management (SAM)

Each applicant, unless they have a valid exception under 2 C.F.R. § 25.110, must:

- Be registered in SAM.gov before application submission.
- Provide a valid UEI in its application.
- Always maintain an active SAM registration with current information during the federal award process.

Note: Per 2 C.F.R. § 25.300, subrecipients are NOT required to go through the full SAM registration process. First-tier subrecipients (meaning entities receiving funds directly from the recipient) are only required to obtain a UEI through SAM, but they are not required to complete the full SAM registration to obtain a UEI. Recipients may not make subawards unless the subrecipient has obtained and provided the UEI.

Lower-tier subrecipients (meaning entities receiving funds passed through by a higher-tier subrecipient) are not required to have a UEI and are not required to register in SAM. Applicants are also not permitted to require subrecipients to register in SAM.

5. Steps Required to Obtain a UEI, Register in SAM.gov, and Submit an Application

To apply for a federal award under this funding opportunity, all applicants must:

- a. Apply for or verify their Employer ID Number (EIN) from the Internal Revenue Service
- b. Have an account with <https://www.login.gov/>
- c. Register for, update, or verify their SAM account and UEI and make sure the account is active.
- d. Create a Grants.gov account.
- e. Add a profile to a Grants.gov account.
- f. Establish an Authorized Organizational Representative (AOR) in Grants.gov.
- g. Submit application in Grants.gov.
- h. Continue to maintain an active SAM registration with current information, including information on a recipient's immediate and highest-level owner and subsidiaries, as well on all predecessors that have been awarded a federal contract or grant within the last 3 years, if applicable, at all times during which it has an active federal award or an application or plan under consideration by a federal awarding agency.

Applicants are advised that DHS may not make a federal award until the applicant has complied with all applicable SAM requirements. Therefore, an applicant's SAM registration must be active not only at the time of application, but also during the application review period and when DHS is ready to make a federal award. If an applicant's SAM registration is expired at the time of application, expires during application review, or expires any other time before the federal award, DHS may determine that the applicant is not qualified to receive a federal award and use that determination as a basis for making a federal award to another applicant.

Further, following a federal award, a recipient's SAM registration must remain active for the duration of the federal award. If a recipient's SAM registration expires during the federal award period of performance, DHS may take a remedy for noncompliance at 2 C.F.R. § 200.339, which could include terminating the federal award.

Per 2 C.F.R. § 25.110(c)(2)(iii), if an applicant is experiencing exigent circumstances that prevent it from receiving a UEI number and completing SAM registration before receiving a federal award, the applicant must notify DHS as soon as possible by contacting the DHS Grants and Financial Assistance Division (GFAD) and providing the details of the circumstances that prevent completion of these requirements. If DHS GFAD determines that there are exigent circumstances and DHS GFAD has decided to make a federal award, the applicant will be required to obtain a UEI number, if applicable, and complete SAM registration within 30 days of the federal award date.

The Standard Language for Using Grants.gov to Apply is provided to aid in fulfilling these requirements (if applicable), based off of [grants.gov/grantors/grantor-standard-language](https://www.grants.gov/grantors/grantor-standard-language).

6. Electronic Delivery

DHS is participating in the Grants.gov initiative to provide the grant community with a single site to find and apply for grant funding opportunities. DHS encourages or requires applicants to submit their applications online through Grants.gov, depending on the funding opportunity.

For this funding opportunity, the Program Office requires applicants to submit applications through Grants.gov.

7. How to Register to Apply through Grants.gov

General Instructions: Registering in Grants.gov is a multi-step process and the following provides instructions about how to register. Applicants should read the registration instructions carefully and prepare the necessary information before beginning the Grants.gov registration process. Reviewing and assembling the required information before beginning the registration process will alleviate last-minute searches for required information.

The registration process can take up to four weeks to complete. Therefore, registration should be done in sufficient time to make sure it does not impact an applicant's ability to meet required application submission deadlines.

Organizations must have a UEI Number with an active SAM registration, and Grants.gov account to apply for a federal award under this funding opportunity.

Creating a Grants.gov account can be completed online in minutes, but UEI SAM registrations may take several weeks. Therefore, an applicant should complete its registration in sufficient time to make sure it does not impact its ability to meet required application submission deadlines. Complete organization instructions can be found on Grants.gov here: [grants.gov/applicants/applicant-registration](https://www.grants.gov/applicants/applicant-registration).

- a. **Obtain Employer Identification Number:** All entities applying for funding must provide an Employer Identification Number (EIN). The EIN can be obtained from the IRS by visiting: "Apply for an Employer Identification Number (EIN) Online | Internal Revenue Service (irs.gov)."
- b. **Create a login.gov account:** Applicants must have a login.gov account to register with SAM or update their SAM registration. Applicants can create a login.gov account at the "Create Account" page. Applicants with existing SAM accounts can use the same email address for the login.gov account as with SAM.gov so that the

two accounts can be linked. Refer to the Frequently Asked Questions page on SAM.gov for more information on the login.gov requirements for SAM registration.

- c. **Register with SAM:** All applicants applying online through Grants.gov must register with SAM. Failure to register with SAM will prevent an applicant from applying through Grants.gov. SAM registration must be renewed annually. Organizations will be issued a UEI number with the completed SAM registration.

For more detailed instructions for registering with SAM, refer to:
[grants.gov/applicants/applicant-registration](https://www.grants.gov/applicants/applicant-registration).

Note: The regulation at 2 C.F.R. § 25.200 requires that, in maintaining an active SAM registration with current information, an applicant must provide information on the applicant's immediate and highest-level owner, subsidiaries, and predecessors that have been awarded federal contracts or federal financial assistance within the last three years, if applicable.

- d. **Create a Grants.gov Account:** The next step is to register an account with Grants.gov. Follow the on-screen instructions or refer to the detailed instructions here: [grants.gov/applicants/applicant-registration](https://www.grants.gov/applicants/applicant-registration).
- e. **Add a Profile to a Grants.gov Account:** A profile in Grants.gov corresponds to a single applicant organization the user represents (i.e., an applicant). If you work for or consult with multiple organizations and have a profile for each, you may log in to one Grants.gov account to access all your grant applications. Enter the UEI Number for the organization in the UEI field while adding a profile to add an Organization Applicant Profile to your Grants.gov account.

For more detailed instructions about creating a profile on Grants.gov, refer to: <https://www.grants.gov/help/html/help/index.htm?callingApp=custom#t=Register%2FAddProfile.htm&callingApp=custom>.

- f. **EBiz POC Authorized Profile Roles:** After users register with Grants.gov and create an Organization Applicant Profile, the organization applicant's request for Grants.gov roles and access is sent to the EBiz POC. The EBiz POC will then log in to Grants.gov and authorize the appropriate roles, which may include the Authorized Organizational Representative (AOR) role, thereby giving users permission to complete and submit applications on behalf of the applicant. Users will be able to apply online for an applicant any time after they have been assigned an AOR role.

For more detailed instructions about creating a profile on Grants.gov, refer to: <https://www.grants.gov/help/html/help/index.htm?callingApp=custom#callingApp=custom&t=Applicants%2FManagement%2FManageOrganizationRoles.htm>.

For more detailed information about the EBiz POC login, refer to:
<https://www.grants.gov/help/html/help/index.htm?callingApp=custom#t>LoginAndMyAccount%2FEBizPOCLogin.htm&callingApp=custom>.

- g. **Track Role Status:** To track a user's role request, refer to:
[grants.gov/applicants/applicant-registration](https://www.grants.gov/applicants/applicant-registration).
- h. **Electronic Signature:** When applications are submitted through Grants.gov, the AOR's name who submitted the application on behalf of an applicant is inserted into the signature line of the application, serving as the electronic signature. The EBiz POC **must** authorize people who are able to make legally binding commitments on behalf of the applicant as a user with the AOR role; **this step is often missed, and it is crucial for valid and timely submissions.**

8. How to Submit an Application to DHS via Grants.gov

Grants.gov applicants can apply online using Workspace. Workspace is a shared, online environment where members of a grant team may simultaneously access and edit different webforms within an application. Users can create individual instances of a workspace for each NOFO.

Below is an overview of applying on Grants.gov. Complete instructions on how to apply for opportunities using Workspace can be found at: [grants.gov/applicants/workspace-overview/](https://www.grants.gov/applicants/workspace-overview/).

- a. **Create a Workspace:** Creating a workspace allows users to complete it online and route it through an organization for review before submitting.
- b. **Complete a Workspace:** Completing a workspace includes adding participants to the workspace to work on the application together, completing all the required forms online or by downloading PDF versions, and checking for errors before submission. The Workspace progress bar will display the state of the application process as users apply. Users may click the blue question mark icon near the upper-right corner of each page to access context-sensitive help.
- c. **Adobe Reader:** If users decide not to apply for an applicant by filling out webforms, users can download individual PDF forms in Workspace. The individual PDF forms can be downloaded and saved to a local device storage, network drive(s), or external drives, then accessed through Adobe Reader.

NOTE: Visit the Adobe Software Compatibility page on Grants.gov to download the appropriate version of the software at: [grants.gov/applicants/adobe-software-compatibility](https://www.grants.gov/applicants/adobe-software-compatibility).

- d. ***Mandatory Fields in Forms:*** Users will note fields marked with an asterisk and a different background color. These are mandatory fields that must be completed to successfully submit an application.
- e. ***Complete SF-424 Fields First:*** The forms are designed to fill in common required fields across other forms, such as the applicant's name, address, and UEI number. Applicants must complete the SF-424 information first to trigger this feature. Once it is completed, the information will transfer to the other forms.
- f. ***Submit a Workspace:*** An application may be submitted through workspace by clicking the Sign and Submit button on the Manage Workspace page, under the Forms tab. Grants.gov recommends submitting an application package at least 24-48 hours prior to the close date to provide time to correct any potential technical issues that may disrupt the application submission.
- g. ***Track a Workspace Submission:*** A Grants.gov Tracking Number (GRANTXXXXXXXX) is automatically assigned to the application after successfully submitting a workspace application. The number will be listed on the Confirmation page that is generated after submission. Use the tracking number to access the Track My Application page under the Applicants tab or the Details tab in the submitted workspace.

Additional training resources, including video tutorials, can be found at:
grants.gov/applicants/applicant-training.

Applicant Support: Grants.gov provides applicants 24/7 support via the toll-free number 1-800-518-4726 and email at support@grants.gov. Contact the number listed in the application package for questions related to the specific grant opportunity.

If you are experiencing difficulties with your submission, call the Grants.gov Support Center and get a ticket number. The Support Center ticket number will assist DHS with tracking your issue and understanding background information on the issue.

9. Timely Receipt Requirements and Proof of Timely Submission

All applications must be received by 5:00PM Eastern time on the due date established for each program. Proof of timely submission is automatically recorded by Grants.gov. An electronic date/time stamp is generated within the system when the application is successfully received by Grants.gov. Users with the AOR role who submitted the application will receive an acknowledgement of receipt and a tracking number (GRANTXXXXXXXX) from Grants.gov with the successful transmission of the application. The AOR will also receive the official date/time stamp and Grants.gov Tracking number in an email serving as proof of timely submission. Applications received by Grants.gov after the deadline will be considered late and will not be considered for funding.

When DHS successfully retrieves the application from Grants.gov and acknowledges the download of submissions, Grants.gov will provide an electronic acknowledgment of receipt of the application via email to the AOR who submitted the application.

Applicants using slow internet, such as dial-up connections, should be aware that transmission can take some time before Grants.gov receives an application. Again, Grants.gov will provide either an error or a successfully received transmission via email to the AOR attempting to submit the application. The Grants.gov Support Center reports that some users end the transmission because they think that nothing is occurring during the transmission process. Please be patient and give the system time to process the application.

10. Content and Form of Application Submission

Mandatory forms must be completed for this announcement, including the SF-424 Research & Related (R&R) Application for Federal Assistance, SF-424A Budget Information for Non-Construction Programs, and other forms or information in accordance with the application instructions on Grants.gov and additional instructions below. If submitting any information that is deemed proprietary, please denote the beginning and ending of such information with asterisks (***)

a. MANDATORY FORMS OR INFORMATION

- **SF-424 (R&R) Application for Federal Assistance (SF-424-V5.0)** (available at <https://www.grants.gov/web/grants/forms/r-r-family.html>)
Please complete this form in its entirety. If you fill this form out first, other required forms will populate with basic data such as name, address, etc. Signature and date will auto-fill when you submit the application package through Grants.gov.
 - a. Block 1, Type of Submission – Please check “Application.”
 - b. Block 8, Type of Application – Please check “New.”
 - c. Block 12, Proposed Project – Enter Dates of Entire Project Period
 - d. Block 15a, Estimated Project Funding – Please check \$900,000
 - e. Block 16, E.O. 12372 review question – Please check “No.”
 - f. Block 17 - By submitting this application, your organization is providing certifications and assurances regarding:
 - i. Drug-Free Workplace Requirement
 - ii. Debarment, Suspension, and Other Responsibility Matters—
Primary Covered Transactions
 - iii. Assurance that your organization is not delinquent on any Federal debt.
- **SF-424A Research & Related (R&R) Budget**
An R&R Budget is required for ALL applications. Please ensure that the total amount requested corresponds to Block 15.a on the SF 424 R&R form.
Include one budget for the three-year base period. A detailed budget justification (up to three pages) should document proposed expenses. Multi-university proposals should use the award-sub award proposal mechanisms or the collaborative

mechanism. Attach an expanded equipment list (see item C on R&R Budget Form) if necessary.

Funds must be included in each year of the proposal budget for attendance at professional meetings or program reviews as required by the Program Office, as described under Funding Restrictions. For budgetary purposes, the professional meetings may be assumed to be in the United States and be up to five days duration.

- **Budget Justification**

A Budget Justification is required for all applications. Please ensure that items listed in the budget justification correspond to the funds requested on the R&R Budget form. Attach the Budget Justification to the R&R Budget form. If you need to attach more than one file to fully capture your budget justification, you may use the optional “Attachments” form.

Please use the following guidance when assembling your budget justification:

Use the following cost categories to group items of cost in your budget justification.

PERSONNEL

FRINGE BENEFITS

TRAVEL

EQUIPMENT (see item C on R&R Budget Form)

SUPPLIES (see item F.1 on R&R Budget Form)

CONTRACTUAL (see item F.5 on R&R Budget Form)

OTHER DIRECT COSTS (see items under item F on R&R Budget Form)

INDIRECT COSTS

If you wish to display your budget justification by task, please ensure that you supply a total for each of the cost categories listed above (and related fields on the R&R Budget Form) for the proposed budget period in your application.

The period of performance for this award is 3 years. Recipient must submit a proposal which covers the full 3-year period. **The budget and justification of costs should only include the initial 3-year budget period.**

NOTE: For awards solely for undergraduate scholarships, the default period of performance is three years, but if the undergraduate student graduates before the end of the three full years, the period of performance will be considered to have ended at the time of graduation, and any closeout requirements will begin at the time of graduation, unless the university introduces another undergraduate student to complete the research project.

- **Project/Performance Site Location(s)**

Please provide information for every site in your project.

- **SF-424B Assurances for Non-Construction Programs**

Submit this form. It will be electronically signed upon submission to Grants.gov as part of your application.

- **Certification Regarding Lobbying (GG_Lobbying Form-V1.1)**
Submit this form. If paragraph two of the certification applies, then complete and submit the SF-LLL Disclosure of Lobbying, which is provided as an optional form in the application package.
- **Research & Related Senior/Key Person Profile**
Please supply biographical information on Key Personnel. The files can be attached as item 12 on the “Other Project Information Form” or use the optional “Attachments” form.
- **Indirect Cost Agreement or Proposal**
If the budget includes indirect costs and if the applicant is required to have an indirect cost rate agreement or proposal, the agreement or proposal must be submitted with the application. If the applicant does not have or is not required to have an indirect cost rate agreement or proposal, please see Section D.12 of this NOFO, “Funding Restrictions and Allowable Costs,” for further information regarding allowability of indirect costs and whether alternatives to an indirect cost rate agreement or proposal might be available contact the relevant DHS staff identified in Section G of this NOFO, “DHS Awarding Agency Contact Information” for further instructions.
- **Terms of Appointment**
Please refer to Section C.4, Other Eligibility Criteria/Restrictions, subsection I (Terms of Appointment) and Appendix A.
- **Proposal Package**
See instructions below regarding additional content and formatting of Proposal Package. Only one proposal package is permitted per PI, co-PI, senior researcher, student, consultant, or any other role for which funding is requested.

b. PROPOSAL PACKAGE PREPARATION INSTRUCTIONS

- **Cover Sheet:**
The cover sheet is provided in Appendix B. Note: for a proposal ID, please follow the following naming convention:
 - NTNFNOFO24-XXXX-YYYY-TMA-0#-0## XXXX = four letter (maximum 4 letter) character shortcut for organization name
 - YYYY = four letter (maximum 4 letter) character shortcut for department/division name
 - # = Technical Mission Area number
 - ## = number of proposal submission

Example: Organization A, Dept. B’s submission for its first proposal to topic 01 would have the ID listed: ORGA-DEPB-TMA-01-001

- **Project Summary**

This space is limited to 200 words or less. Applicants should provide an overview of the research project and how PIs will effectively conduct the research as a team, integrating the graduate and/or undergraduate students. All highlights of the proposal should be listed here. The information provided on the Summary Page may be used as a public information document. Please do not include any proprietary information in this section of the application.

○ **Project Narrative:**

This is the main body of the application and should provide clear and specific statements regarding the proposed research. This section should demonstrate the applicant's understanding of nuclear forensics as an applied science and how the proposed program aligns with U.S. Government TMAs as outlined in section A.10.b of this NOFO.

Describe the goals of the proposed research, approaches, and methodologies to attain the goals, and the expected outcomes. Please include a proposed project timeline, listing milestones and deliverables as appropriate.

Also articulate how the research project will offer opportunities for underrepresented minority groups and women, if applicable. The description of work should demonstrate congruency with the Evaluation Criteria (please refer to Section E).

High-risk proposals with the potential for high impact are encouraged. The Project Narrative (i.e., Proposed Research, Management Plan, and References Cited sections), the Mentoring Plan, and the Key Personnel sections collectively should not exceed a total of fifteen (15) pages.

- **Proposed Research:** Narrative consisting of the following items:
 - An explanation of the scientific context, intellectual merit, relevance to the technical mission areas on pages three-five, potential long-term impact, and timeliness of the proposed project.
 - A detailed description of the proposed research, its goals, objectives and milestones, and any substantive risks and risk mitigation strategies.
 - If appropriate, a discussion of the multidisciplinary approach taken and its proposed benefits.
 - A description of the contribution to be made by Key Personnel.
 - A description of how project progress will be tracked and continuously evaluated; and
 - A timeline for the planned work.
- **Management Plan:** Narrative describing:
 - Demonstration of effective and appropriate financial controls, budget processes, administrative oversight, and personnel management.

- How the project will be coordinated, including any use of cyberinfrastructure.
- How decisions will be made regarding the conduct of the project.
- **References Cited:**
References should include full titles of articles and book chapters cited. This section should include bibliographic citations only and must not be used to provide parenthetical information outside of the project description. Indicate with an asterisk (*) references co-authored by two or more proposal investigators.
- **Mentoring Plan:** Narrative describing:
 - Establishment of a mentoring process, including goals, defining roles and responsibilities, and describing communication methods, for co-mentoring of the graduate and/or undergraduate students.
 - How the design will be implemented; and
 - How the effectiveness of mentoring will be evaluated.

c. **OTHER SUBMISSION REQUIREMENTS**

- **Formatting:** The format applies to the Proposal Package cover sheet through mentoring plan items above:
 - Margins – Margins for length and width should be at least one (1) inch.
 - Page formatting – Use standard, single-column format.
 - Figures, Tables, Diagrams – Use captions and appropriate references with at least size 10 font for caption descriptions.
 - Spacing – Use at least single spacing (for size 12 font)
 - Font and size (except for item c above) – Use Times New Roman, 12-point, Black font.
- **Applicants are encouraged to register early. The registration process can take four weeks or more to be completed. Therefore, registration should be done in sufficient time to ensure it does not impact your ability to meet required submission deadlines.**
- All submissions should follow the instructions in Sections D.7 (How to Register to Apply through Grants.gov), D.8 (How to Submit an Application to DHS via Grants.gov), and D.10 (Content and Form of Application Submission). All files submitted in the application shall be in .pdf format. Limit filenames to 50 characters.

11. Intergovernmental Review

An intergovernmental review is not required for this NOFO.

12. Funding Restrictions and Allowable Costs

a. General Requirements

All costs charged to federal awards (including both federal funding and any non-federal matching or cost sharing funds) must comply with applicable statutes, rules and regulations, policies, this NOFO, and the terms and conditions of the federal award. They must also comply with the Uniform Administrative Requirements, Cost Principles, and Audit Requirements at 2 C.F.R. Part 200 unless otherwise indicated in the NOFO or the terms and conditions of the federal award. This includes, among other requirements, that costs must be incurred, and products and services must be delivered within the budget period. 2 C.F.R. § 200.403(h). Additionally, all costs charged to awards must comply with the grant program's applicable statutes, policies, requirements in this NOFO as well as with the terms and conditions of the award.

b. Funding Restrictions Generally

Recipients may not use federal funds and any cost sharing or matching funds under federal awards for the following activities:

- 1) Matching or cost sharing requirements for other federal grants and cooperative agreements (see 2 C.F.R. § 200.306).
- 2) Lobbying or other prohibited activities under 18 U.S.C. § 1913 or 2 C.F.R. § 200.450.
- 3) Prosecuting claims against the federal government or any other government entity (see 2 C.F.R. § 200.435).

c. Prohibition on Covered Telecommunications Equipment or Services

Recipients, subrecipients, and their contractors must comply with the prohibitions set forth in Section 889 of the John S. McCain National Defense Authorization Act for Fiscal Year 2019, Pub. L. No. 115-232 (2018) (FY 2019 NDAA) and 2 C.F.R. §§ 200.216, 200.327, 200.471, and Appendix II to 2 C.F.R. Part 200. The FY 2019 NDAA and these regulations, as they apply to recipients, subrecipients, and their contractors and subcontractors, provide for two distinct prohibitions: (1) prevent the use of federal award funds to procure or obtain covered telecommunications equipment or services; and (2) prevent the use of federal award funds to contract with an entity that uses such covered telecommunications equipment or services.

d. Pre-Award Costs

Not allowed.

e. Management and Administration (M&A) Costs

M&A are not operational costs but are necessary costs incurred in direct support of the federal award or as a consequence of it, such as travel, meeting-related expenses, and salaries of full/part-time staff in direct support of the program. As such, M&A are allowable up to five percent (5%) of the award and costs must be itemized in financial reports.

f. Indirect (Facilities and Administrative (F&A)) Costs

Indirect (facilities & administrative) costs (IDC) means those costs incurred for a common or joint purpose benefitting more than one cost objective and not readily assignable to the cost objectives specifically benefitted, without effort disproportionate to the results achieved. IDC are allowable by the recipient and, if applicable, subrecipients, as described in 2 C.F.R. Part 200, including 2 C.F.R. § 200.414. Applicants with a current negotiated IDC rate agreement who desire to charge indirect costs to a federal award must provide a copy of their IDC rate agreement with their applications. Not all applicants are required to have a current negotiated IDC rate agreement. Applicants that are not required to have a negotiated IDC rate agreement but are required to develop an IDC rate proposal must provide a copy of their proposal with their applications. Applicants who do not have a current negotiated IDC rate agreement (including a provisional rate) and wish to charge the de minimis rate must reach out to the Program Office and the Grants Office for further instructions. Applicants who wish to use a cost allocation plan in lieu of an IDC rate proposal must reach out to the Program Office and the Grants Office for further instructions. As it relates to the IDC for subrecipients, a recipient must follow the requirements of 2 C.F.R. §§ 200.332 and 200.414 in approving the IDC rate for subawards.

- g. Foreign Travel:** Foreign travel required in the performance of the duties approved in this award must be approved by DHS in advance and in writing and comply with the applicable rules in 2 C.F.R. Part 200. Requests for foreign travel identifying the traveler, the purpose, the destination, and the estimated travel costs must be submitted to the DHS Grants Officer 60 days prior to the commencement of travel.

h. Evaluation Costs

Evaluation costs are allowable unless otherwise prohibited by statute or regulation. See Section F.6 of this NOFO.

E. Application Review Information

1. Application Evaluation

a. Programmatic Criteria

The evaluation of proposals submitted in response to this NOFO will be accomplished through independent technical reviews using the following criteria, which are of equal importance.

Criterion I: Scientific Merit and Technical Approach

The following elements will be considered and evaluated:

- The application is responsive to the Technical Mission Areas outlined in the Technical Priorities Section of the NOFO.

- The intellectual merit of the proposed research will serve to advance knowledge and understanding within the related technical field and/or across multiple related disciplines.
- The proposed University PI has the necessary experience (including prior, if applicable) and expertise to conduct the proposed research.
- The proposed research project addresses at least the following in a clear and complete manner: goals, schedule, methodology, and expected outcome.
- The proposed research exhibits creative, original (non-duplicative), innovative, and/or potentially transformative concepts.
- The dissemination of the results will broadly enhance scientific and technological understanding that may be beneficial to the nuclear forensics community.

Criterion II: Student Component

The following elements will be considered and evaluated:

- At least two undergraduate and/or two graduate students are proposed. The proposed undergraduate students are pursuing or planning to pursue an undergraduate degree in, and the proposed graduate students are pursuing or planning to pursue doctoral study in specialties directly relevant to nuclear forensics, which include, but are not limited to:
 - o Analytical, Geo- and Radiochemistry
 - o Nuclear or General Physics
 - o Material Science
 - o Nuclear Engineering
 - o Computer Science
 - o Geology; and
 - o Mathematics.
- The proposed graduate students have at least 3 years of graduate work remaining at the beginning of the period of performance.
- For Universities sponsoring undergraduate and graduate students: At least two undergraduate students are actively integrated into the research process, including a plan to support some aspects of the faculty or graduate students' research. Undergraduate students must be in their junior or senior year of studies.
- The mentoring plan addresses at least the following in a clear and complete manner: roles and responsibilities, implementation, and periodic evaluation.
- The research activity will advance discovery and understanding while promoting teaching, training, and learning to support fostering the next generation of scientists and engineers.

Criterion III: Management Plan

The following elements will be considered and evaluated:

- The proposed Management Plan will include a project timeline, listing milestones and deliverables as appropriate.
- The proposed activity will broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.).

- An effective Management Plan which outlines project administration, coordination, and administrative processes.

b. Financial Integrity Criteria

The DHS, before making a federal award, is required by 31 U.S.C. § 3354 (enacted by the Payment Integrity Information Act of 2019, Pub. L. No. 116-117, § 2 (2020)), 41 U.S.C. § 2313, and 2 C.F.R. § 200.206 to review information available through any Office of Management and Budget (OMB)-designated repositories of government wide eligibility qualification or financial integrity information, including whether SAM.gov identifies the applicant as being excluded from receiving federal awards. Therefore, application evaluation criteria may include the following risk-based considerations of the applicant:

- 1) Financial stability.
- 2) Quality of management systems and ability to meet management standards.
- 3) History of performance in managing federal awards.
- 4) Reports and findings from audits.
- 5) Ability to effectively implement statutory, regulatory, or other requirements.

In addition, organizations who have not received prior DHS GFAD awards may be required to complete a risk assessment questionnaire as part of the pre-award financial and administrative review.

c. Supplemental Financial Integrity Criteria and Review

Prior to making a federal award where the anticipated total federal share will be greater than the simplified acquisition threshold (currently \$250,000):

- 1) DHS is required by 41 U.S.C. § 2313 and 2 C.F.R. § 200.206(a)(2) to review and consider any information about the applicant that is in the designated integrity and performance system accessible through SAM, which is currently the [Federal Awardee Performance and Integrity Information System](#) (FAPIIS) and is accessible through the [SAM.gov](#) website.
- 2) An applicant, at its option, may review information in FAPIIS and comment on any information about itself that a federal awarding agency previously entered.
- 3) DHS will consider any comments by the applicant, in addition to the other information in FAPIIS, in making a judgment about the applicant's integrity, business ethics, and record of performance under federal awards when completing the review of risk posed by applicants as described in 2 C.F.R. § 200.206.

2. Review and Selection Process

Application Receipt: All completed applications submitted through Grants.gov in response to this NOFO will be subjected to a technical evaluation by a panel review.

Application Handling: Completed applications will be handled following DHS information safeguarding procedures.

Panel Evaluators and Reviewers/Advisors: Only federal employees will serve on the Panel as Evaluators. The Panel will include at least three Panel Evaluators who will review all applications, independently evaluate, and score each application, and who will be responsible for determining, with respect to each evaluation factor, the final ratings of the applications. Each Evaluator is a subject-matter expert (SME) assigned to the appropriate topics (TMA) based on their technical expertise. The Evaluators will be selected by the Program Office, which will also facilitate the review. Applicants are advised that the Government will use non-federal contractor SMEs who have signed appropriate non-disclosure agreements, to support CWMD as proposal Reviewers/Advisors throughout the objective review process. Contractor SMEs serve as non-voting Advisors to the objective review process.

Evaluation: Evaluators will conduct their individual evaluation for each assigned application. Following the individual evaluation, a consensus review will be held to formulate an overall score and ultimately a recommendation for each application.

Each criterion will be scored according to the following adjectival/numerical ratings:

- **EXCELLENT (5):** Excellent in all respects; offers one or more very significant strengths not offset by weaknesses. Application demonstrates excellent understanding of the criterion as described in the funding opportunity and presents an approach that significantly exceeds performance or capability standards necessary for acceptable award performance.
- **VERY GOOD (4):** High quality in almost all respects; offers one or more significant strengths not offset by weaknesses. Application demonstrates very good understanding of the criterion as described in the funding opportunity and presents an approach that exceeds performance or capability standards necessary for acceptable award performance.
- **SATISFACTORY (3):** Good quality in most respects; offers one or more strengths not offset by weaknesses. Application demonstrates good understanding of the criterion as described in the funding opportunity and presents an approach that meets performance or capability standards necessary for acceptable award performance.
- **MARGINAL (2):** Marginal quality in most respects; strengths are offset by weaknesses. Application demonstrates shallow understanding of the criterion as described in the funding opportunity and presents an approach that only marginally meets performance or capability standards necessary for acceptable award performance.

- **UNSATISFACTORY (1):** Poor quality in most respects; strengths (if any) are offset by weaknesses. Application demonstrates a lack of understanding of the criterion as described in the funding opportunity and presents an approach that does not meet performance or capability standards necessary for acceptable award performance.

The overall score, based on the consensus ratings of the Evaluators, will be calculated as follows:

<u>Evaluation Categories</u>	<u>Rating Scale</u>
Scientific Merit and Technical Approach	1-5
Student Component	1-5
Management Plan	1-5

OVERALL SCORE 1-5, Unsatisfactory - Excellent

The Overall Score is computed by the following: $\frac{1}{3} \times (\text{Scientific Merit and Technical Approach}) + \frac{1}{3} \times (\text{Student Component}) + \frac{1}{3} \times (\text{Management Plan})$. If a decimal results, the Evaluators will round to a whole number. Subjective judgment may be used in choosing to round up or down.

Recommendation

The rating of recommendations for each application will follow:

- **Recommended (R)** – Proposals have met and/or exceed the topic requirements/objectives and will conduct successful research. Proposals under this rating are recommended for funding.
- **Selectable (S)** – Proposals will likely satisfy the topic requirements/objectives and have a likelihood of successful research. Proposals under this rating are recommended for funding, if available.
- **Not Recommended (NR)** – Proposals that are non-responsive to the topic area requirements/objectives and/or do not satisfy the evaluation criteria and will unlikely conduct successful research. Proposals under this rating are not recommended for funding.

Applications that receive a consensus rating of 1 in any criterion are deemed “not recommended.” All remaining applications will be considered “selectable.” Based upon the overall score of the remaining applications, the applications will be ranked in order of score, and the highest ranked applications will be deemed “recommended” based on availability of funding.

A summary of the recommendation and accompanying narrative will be completed by each reviewer. The Program Office will make the selection based on the consensus

evaluation. Please note that decisions to fund all the recommended proposals are subjected to available funding.

After programmatic approval has been obtained, the proposals recommended for funding will be forwarded to DHS GFAD for review of business, financial, and policy implications. After an administrative review has occurred, Grants Officers will perform the processing and issuance of an award. Proposers are cautioned that only a Grants Officer may make commitments, obligations, or awards on behalf of DHS or authorize the expenditure of funds. No commitment on the part of DHS should be inferred from technical or budgetary discussions with a Program Officer. A principal investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the DHS Grants Officer does so at their own risk.

F. Federal Award Administration Information

1. Notice of Award

The AOR for the applicant should carefully read the federal award package before accepting the federal award. The federal award package includes instructions on administering the federal award and the terms and conditions of the federal award. By submitting an application, applicants agree to comply with the prerequisites stated in this NOFO and the material terms and conditions of the federal award, should they receive an award.

Applicants are advised that DHS FAO's practice is to provide a separate notice stating that an application has been selected before it makes the federal award letter. This notice is not an authorization to begin performance (to the extent that it allows charging to federal awards of pre-award costs at the non-federal entity's own risk). The notice of federal award signed by the grants officer (or equivalent) is the authorizing document and will be provided through electronic means to notified awardees.

2. Pass-Through Requirements

None applicable.

3. Administrative and National Policy Requirements

a. DHS Standard Terms and Conditions

A recipient of a federal award under this funding opportunity will be required to comply with DHS Standard Terms and Conditions in effect at the time of the federal award. The DHS Standard Terms and Conditions are available online at [DHS Standard Terms and Conditions](#). For continuation awards, the terms and conditions

applicable to the initial federal award will apply unless otherwise specified in the terms and conditions of the continuation award. The specific version of the DHS Standard Terms and Conditions applicable to the federal award will be clearly stated in the federal award package.

4. Reporting

a. Federal Financial Reporting (FFR) Requirements

- 1) Recipients must report obligations and expenditures through a federal financial report. The Federal Financial Report (FFR) form, also known as Standard Form 425 (SF-425), is available online at: [SF-425 OMB #4040-0014](#).
- 2) Recipients must submit the FFR quarterly throughout the period of performance (PoP) as detailed in the table below:

<i>Reporting Period</i>	<i>Report Due Date</i>
<i>October 1 – December 31</i>	<i>January 30</i>
<i>January 1 – March 31</i>	<i>April 30</i>
<i>April 1 – June 30</i>	<i>July 30</i>
<i>July 1 – September 30</i>	<i>October 30</i>

- 3) The final FFR is due within 120 calendar days after the end of the PoP.
- 4) The DHS may withhold future federal awards and cash payments if the recipient does not submit timely financial reports or the financial reports submitted demonstrate lack of progress or provide insufficient detail.

b. Programmatic Performance Reporting Requirements

- 1) **Quarterly Performance Report:** The Recipient shall submit performance reports into the GrantSolutions system no later than thirty (30) days after the end of each federal quarter. Reports are due on 1/30, 4/30, 7/30, and 10/30. The report shall be submitted via www.GrantSolutions.gov using the performance reporting feature and submission guidance found here: <https://www.grantsolutions.gov/support/granteeUsers.html>. A courtesy copy of the report should also be e-mailed to the Program Office at NTNFCMonthlyReport@hq.dhs.gov.

The following performance metrics must be included in the Quarterly Performance Reports:

- a) A summary of research conducted, to include quantifiable outcomes and any setbacks.
- b) Expected research objectives/goals in the next quarter.
- c) Any requests for funding and research deviations from the original proposal and a comprehensive explanation as to the reason for the request.
- d) Efforts undertaken with regard to the Mentoring Plan.
- e) If applicable, Graduate Fellow academic and research progress.
- f) If applicable, Undergraduate Student academic and research progress.
- g) Summary of student practical research at the collaborating national or defense laboratory (if applicable).
- h) Travel and conference attendance within the last quarter and upcoming travel/conference attendance.
- i) Copies of any formal presentations or articles as a result of the research; and
- j) A summary of activities with regard to engagement of underrepresented groups, if applicable.

2) Annual Project Summary and Accomplishments: In addition to the required performance report, an updated project quad chart and summary of fiscal year accomplishments must be submitted to the Program Office, as requested by CWMD for every year of the project's duration. Specific due dates and templates will be distributed by the Program Office at least one month prior to the requested submission date.

3) Final (End of Program) Performance Report: The Recipient shall submit the Final Performance Report into the GrantSolutions system no later than 120 days after the end of the PoP. The report shall be submitted via www.GrantSolutions.gov using the performance reporting feature and submission guidance found here: <https://www.grantsolutions.gov/support/granteeUsers.html>. A courtesy copy of the report should also be e-mailed to the Program Office at NTNFCMonthlyReport@hq.dhs.gov

c. Closeout Reporting Requirements

Within 120 days after the end of the period of performance, or after an amendment has been issued to close out a federal award, recipients must submit the following:

- 1) The final request for payment, if applicable.
- 2) The final FFR.
- 3) The final progress report detailing all accomplishments.

- 4) A qualitative narrative summary of the impact of those accomplishments throughout the period of performance.
- 5) Other documents required by this NOFO, terms and conditions of the federal award, or other Program Office guidance.

If applicable, an inventory of all construction projects that used funds from this program must be reported with the final progress report.

After the Program Office reviews and approves these reports, it will issue a closeout notice to close out the federal award. The notice will indicate the period of performance as closed, list any remaining funds that will be de-obligated, and address the requirement of maintaining the federal award records for three years from the date of the final FFR, unless a longer period applies, such as due to an audit or litigation, for equipment or real property used beyond the period of performance, or due to other circumstances outlined in 2 C.F.R. § 200.334.

In addition, pass-through entities are responsible for closing out those subawards as described in 2 C.F.R. § 200.344; subrecipients are still required to submit closeout materials within 90 calendar days of the subaward period of performance end date. When a subrecipient completes all closeout requirements, pass-through entities must promptly complete all closeout actions in time for the recipient to submit all necessary documentation and information to the Program Office during the closeout of their prime award.

The recipient is responsible for returning any balances of unobligated or unliquidated funds that have been drawn down that are not authorized to be retained per 2 C.F.R. § 200.344(d).

d. Disclosing Information per 2 C.F.R. § 180.335

The regulation at 2 C.F.R. § 180.335 requires an applicant to notify the Program Office before it enters the federal award if the applicant knows that it or any of the principals (as defined at 2 C.F.R. § 180.995) for the federal award:

- a) Are presently excluded or disqualified;
- b) Have been convicted within the preceding three years of any of the offenses listed in 2 C.F.R. § 180.800(a) or had a civil judgment rendered against it or any of the applicant's principals for one of those offenses within that time period;
- c) 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 listed in 2 C.F.R. § 180.800(a); or
- d) Have had one or more public transactions (federal, state, or local) terminated within the preceding three years for cause or default.

The regulation at 2 C.F.R. § 180.350 requires a recipient, at any time after entering a federal award, to provide immediate notice to Program Office if the recipient learns that either it failed to earlier disclose information as required by 2 C.F.R. § 180.335 or, due to changed circumstances, the applicant or any of the principals for the federal award now meet the criteria at 2 C.F.R. § 180.335 listed above.

e. Reporting of Matters Related to Recipient Integrity and Performance

Appendix XII to 2 C.F.R. Part 200 sets forth a term and condition related to recipient integrity and performance matters that will apply to all federal awards under this funding opportunity. If the total value of currently active grants, cooperative agreements, and procurement contracts from all federal awarding agencies exceeds \$10,000,000 for any period of time during the period of performance of a federal award under this funding opportunity, then a recipient must maintain the currency of information reported in FAPIIS about civil, criminal, or administrative proceedings described in paragraph 2 of Appendix XII at the reporting frequency described in paragraph 4 of Appendix XII.

f. Single Audit Report

A recipient that expends \$750,000 or more during the recipient's fiscal year in federal awards (as defined by 2 C.F.R. § 200.1) must have a single audit conducted in accordance with 2 C.F.R. § 200.514 except when it elects to have a program-specific audit conducted in accordance with 2 C.F.R. § 200.501. The audit must be conducted in accordance with 2 C.F.R. Part 200, Subpart F and, as required by 2 C.F.R. § 200.514, in accordance with the U.S. Government Accountability Office (GAO) Generally Accepted Government Auditing Standards, which can be found on the [Yellow Book page of the GAO website](#).

5. Monitoring and Oversight

The regulation at 2 C.F.R. § 200.337 provides DHS and any of its authorized representatives with the right of access to any documents, papers, or other records of the recipient and any subrecipients that are pertinent to a federal award in order to make audits, examinations, excerpts, and transcripts. The right also includes timely and reasonable access to the recipient's or subrecipient's personnel for the purpose of interview and discussion related to such documents. Pursuant to this right and per 2 C.F.R. § 200.329, DHS may conduct desk reviews and make site visits to review project accomplishments and management control systems, to evaluate project accomplishments, and to provide any required technical assistance. During site visits, DHS may review a recipient's or subrecipient's files pertinent to the federal award and interview and/or discuss these files with the recipient's or subrecipient's personnel. Recipients and subrecipients must respond in a timely and accurate manner to DHS requests for information relating to a federal award.

6. Program Evaluation

Federal agencies are required to structure NOFOs that incorporate program evaluation activities from the outset of their program design and implementation to meaningfully document and measure their progress towards meeting agency priority goal(s) and program outcomes.

OMB Memorandum M-21-27, Evidence-Based Policymaking: Learning Agendas and Annual Evaluation Plans, implementing Title I of the Foundations for Evidence-Based Policymaking Act of 2018, Pub. L. No. 115-435 (2019) (Evidence Act), urges federal awarding agencies to use program evaluation as a critical tool to learn, improve equitable delivery, and elevate program service and delivery across the program lifecycle. Evaluation means “an assessment using systematic data collection and analysis of one or more programs, policies, and organizations intended to assess their effectiveness and efficiency.” Evidence Act, § 101 (codified at 5 U.S.C. § 311).

As such, recipients and subrecipients are required to participate in a DHS Component, or Program Office (PO)-led evaluation if selected, which may be carried out by a third-party on behalf of the DHS, its component agencies, or the PO. Such an evaluation may involve information collections including but not limited to surveys, interviews, or discussions with individuals who benefit from the federal award program operating personnel, and award recipients, as specified in a DHS Component or PO-approved evaluation plan. More details about evaluation requirements may be provided in the federal award, if available at that time, or following the award as evaluation requirements are finalized. Evaluation costs incurred during the period of performance are allowable costs (either as direct or indirect) in accordance with 2 C.F.R. § 200.413. Recipients and subrecipients are also encouraged, but not required, to participate in any additional evaluations after the period of performance ends, although any costs incurred to participate in such evaluations are not allowable and may not be charged to the federal award. For sponsored graduate students, because of the statutory requirement for the graduate student to serve for 2 years in a post-doctoral position at a laboratory or federal agency, DHS will continue monitoring for 2 years after the period of performance ends to ensure compliance with this requirement.

7. Other Requirements

- a. Students:** Students supported under this project are classified as trainees and must be United States citizens.
- b. Kick-Off:** This meeting will be held remotely or on-site to discuss in detail the technical and programmatic aspects of the proposed research.
- c. Collaboration Meeting:** Periodic collaboration meetings will enable the recipients and subrecipients to review progress, exchange information, and promote and foster collaboration. It is required that all PIs and graduate students supported through this award attend and participate in these meetings in their entirety.

G. DHS Awarding Agency Contact Information

1. Contact and Resource Information

The **Program Officer** shall be the DHS official responsible for monitoring the completion of work and technical performance of the projects or activities described in the Program Narrative Statement:

Sandra Gogol
Mail Stop: 0315
Department of Homeland Security
2707 Martin Luther King Jr Ave SE
Washington, DC 20528-0315
Mobile: (202) 527-3452
Email: Sandra.Gogol@hq.dhs.gov

The **Grants Officer** shall be the DHS official that has the full authority to negotiate, administer and execute all terms and conditions of this Award in concurrence with the Program Officer:

Shareef Prater
Office of Procurement Operations (MGMT I OPO)
245 Murray Lane SW, Mail Stop 0115
Washington, D.C. 20528-0115
Office: 202.770.4776
Email: Shareef.Prater@hq.dhs.gov

2. Systems Information

a. Grants.gov

For technical assistance with [Grants.gov](https://www.grants.gov), call the customer support hotline 24 hours per day, 7 days per week (except federal holidays) at (800) 518-4726 or e-mail at support@grants.gov.

b. Grantsolutions.gov

Information for GrantSolutions.gov access will be provided only to applicants who are selected for funding.

H. Other Information

Period of Performance Extensions and Continuation Awards

No-Cost PoP Extensions:

Extensions to the period of performance under this award are allowed.

Note: Extensions are only allowed during the last year of the award. Please follow the instructions below to apply for an extension.

- Send a request for the form to the Program Office and Grants Officer. Upon completion of the Extension Request form, send your completed forms to the Program Office and Grants Officer.
- Requests shall be submitted at 60 days prior to the end of period of performance.

No-cost extensions are determined on a case-by-case basis. For example, performer need for additional time beyond PoP to complete project scope, performer illness, unanticipated events (e.g., pandemic, facility shutdown, supply-chain issues, etc.).

Optional Continuation Awards & Extensions:

Continuation awards that would extend the PoP for up to two additional years are contingent upon satisfactory completion of the original work scope for the three-year period of performance, availability of funds, and evaluation of follow-on work to the original project scope.

Note: Continuation awards extensions are only allowed during the last year of the award. Please follow the instructions below to apply for a continuation award.

- Send a request for the form to the Program Office and Grants Officer. Upon completion of the Extension Request form, send your completed forms to the Program Office and Grants Officer.
- Requests shall be submitted at least six months prior to the end of the base period of performance.

1. Other Information

Please note, when applying to this notice of funding opportunity, applicants may report issues of fraud, waste, abuse, and mismanagement, or other criminal or noncriminal misconduct to the Office of Inspector General (OIG) Hotline. The toll-free numbers to call are 1 (800) 323-8603, and TTY 1 (844) 889-4357.

- a. Applicants should subscribe to the Grants.gov opportunity to ensure that they receive notifications if there are any changes made to the specific opportunity's forecast, synopsis and/or package.
- b. Only Grants Officers can bind the Federal Government to the expenditure of funds. Publication of this NOFO does not obligate DHS to award any specific number of grants and/or cooperative agreements or to obligate any particular amount of funding.

- c. Applicants are advised to visit frequently the Grants.gov website for notifications of subsequent amendments to the NOFO, such as website links, Information Bulletins, etc.

2. Appendices

- a. Appendix A: Terms of Appointment
- b. Appendix B: Cover Page