



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
ENVIRONMENTAL
MANAGEMENT

DOE-EM Minority Serving Institutions Partnership Program (MSIPP)

**Webinar for Funding Opportunity Announcement
(FOA) DE-FOA-0002820**

May 10, 2023

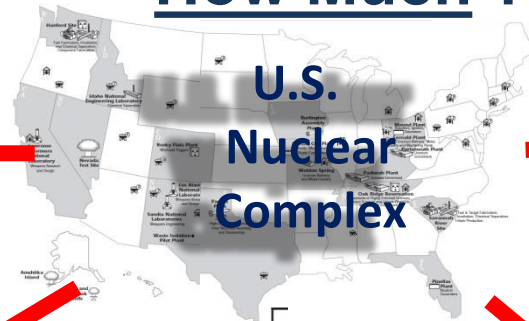
Presented by:

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- **DOE-EM Background/History**
- **MSIPP Activities**
- **MSIPP FOA Topic Areas**
- **FOA Submission Guidelines**
- **Concept Paper Review Criteria**
- **Next Steps**
- **Questions**

How Much ?



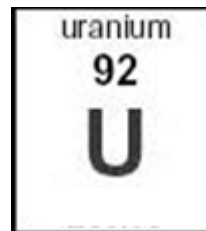
Over 700,000 tons of depleted uranium produced as a by-product of enriching uranium



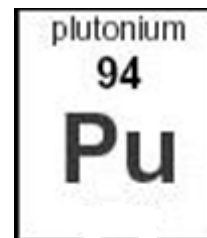
Over 5,000 facilities contaminated as a result of activities such as reactor operations and uranium enrichment



Millions of cubic meters of soil and billions of gallons of groundwater contaminated by environmental releases of radioactive and hazardous materials



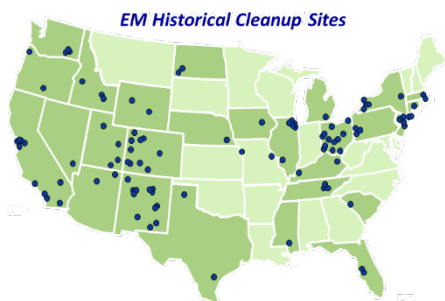
Over 1,000 metric tons of enriched uranium



Over 100 metric tons of plutonium



Over 90 million gallons of liquid waste produced as a by-product of the separation of plutonium and uranium from used nuclear fuel rods



Current DOE EM Sites

Washington

- Richland Operations Office
- Office of River Protection

Idaho

- Idaho Cleanup Project

New York

- West Valley
- Separations Process Research Unit
- Brookhaven

California

- Lawrence Berkeley
- Lawrence Livermore
- Energy Technology
- Engineering Center

Utah

- Moab Site

Kentucky

- Paducah

Ohio

- Portsmouth

Nevada

- EM Nevada

New Mexico

- EM Los Alamos Field Office
- Sandia
- Carlsbad

Tennessee

- Oak Ridge Reservation

South Carolina

- Savannah River Site

Since 1989, DOE has completed its cleanup mission at 91 of the 107 major nuclear sites and has reduced its footprint by 90% to less than 300 sq mi (777 sq km).

❑ DOE Environmental Management Mission

- To complete the safe cleanup of the environmental legacy brought about from decades of nuclear development and government-sponsored nuclear energy research.

❑ Minority Serving Institutions Partnership Program

- MSIPP promotes the education and development of the next generation workforce in critical science, technology, engineering, and math (STEM) related disciplines that compliment current and future missions of the DOE EM.
- DOE EM recognizes that successfully completing its legacy environmental cleanup mission requires maintaining a highly-trained, technically skilled, and diverse workforce. Minority representation in critical science and engineering fields is an important part of EM's vision for this future workforce.
- MSIPP provides students and graduates of Minority Serving Institutions (MSIs) with hands-on education and experience by supporting collaborations between MSIs, EM Field Sites, and DOE National Laboratories.

MSIPP Activities

- ☐ Internships
- ☐ Savannah River Environmental Sciences Field Station and Cyber Security
- ☐ Graduate Fellowship Program
- ☐ Postdoctoral Fellows Program
- ☐ STARS Fellows Program
- ☐ Competitive Research Awards
- ☐ **FOA: Grant Awards**

MSIPP Funding Opportunity Announcement (FOA)

- ❑ Department of Energy (DOE) is releasing Funding Opportunity Announcement (FOA) number DE-FOA-0002820 titled the “Minority Serving Institutions Partnership Program (MSIPP)”. The FOA is a set-aside for Minority Serving Institutions (MSIs) and will result in multiple financial assistance awards.
- ❑ The total estimated value of the FOA is \$24,500,000 and resulting financial assistance awards will have periods of performance ranging from 12-36 months.

Topic Areas

☐ **Soil and Groundwater Remediation**

Basic scientific research through experiential learning can include characterization and monitoring; stabilization, remediation and processing; and modeling, visualization, and analysis. The goal of the research and technology development activities is to deliver approaches and technologies from highly leveraged and strategic investments that maximize the reduction of risk and life-cycle cleanup costs.

☐ **Radioactive Tank Waste Stabilization, Treatment, and Disposal**

The DOE EM has approximately 88 million gallons of liquid waste stored in underground tanks and approximately 4,000 cubic meters of solid waste derived from the liquids stored in bins. Efforts currently focus on improving pre-treatment to reduce the amount of waste that must be disposed, retrieval technologies, vitrification performance, and breakthrough immobilization technologies.

☐ **Cybersecurity, Robotics, and Computer Science**

The DOE EM understands how important it is to ensure cybersecurity, robotics, and computer science including artificial intelligence, machine learning that can enhance operation across all DOE EM sites. Because of this, DOE is advancing mitigation and resilience measures to protect infrastructure, looking towards remote operation for safety and efficiency, and the digital supply chain to optimize performance. EM is supporting these efforts by working closely with MSIs to develop and enhance robotics, computer science, and cybersecurity security curriculum.

Preferences

- ☐ Partnership among MSIs in your state
- ☐ Partnering with MSIs close to DOE EM Field Sites
- ☐ DOE EM related activities
- ☐ Existing working relationship with DOE Field Sites

MSIPP Funding Opportunity Announcement (FOA)

- ❑ The awards resulting from the FOA will focus on **enhancing Minority Serving Institutions (MSI) programs to help foster a sustainable and diverse DOE EM Science, Technology, Engineering, and Mathematics (STEM) workforce pipeline.**
- ❑ The awards will also aid in **promoting the development of a nationally engaged scientific and engineering workforce that will lead to future career pathways in the DOE EM complex for underrepresented groups.**

- **Two-Step FOA**
 - **First Step**: Concept Paper 6 pages including cover page (see pgs. 16-17 of FOA for content requirements)
 - **Second Step**: Full Application
- **\$24,500,000 total Value**
 - Multiple awards expected from \$1M-\$5M
 - 12–36 month project periods
- **Restricted to Accredited Minority Serving Institutions in U.S.**

- **Submit all Concept Papers to:**

msipp-foa@emcbc.doe.gov

**In order to be eligible to submit a Full Application,
a Concept Paper must be submitted**

Informational Webinar: May 10, 2023	12:00 pm ET
Submission Deadline for Expression of Interest E-Mail: May 12, 2023	5:00 pm ET
Submission Deadline for Concept Papers: May 30, 2023	5:00 pm ET

Submission Guidelines Cont'd.

Section	Page Limit	Description
Cover Page	1 page maximum	The cover page shall include the project title, lead organization/entity, organization type and size (i.e., number of employees and students enrolled), the specific announcement Topic Area(s) being addressed, both the technical and business points of contact, names of all collaborating institutions, and any statements regarding confidentiality.
Project Description	4 pages maximum	Applicants are required to describe succinctly: • The proposed program, including its basic operating principles and how it is unique and innovative; • The proposed program's target level of performance (applicants should provide program metrics and goals or other support to show how the proposed target could be met); • The relevance and application to DOE-EM field sites, including key shortcomings, limitations, and challenges; • How the proposed program will overcome the shortcomings, limitations, and challenges in the relevant field and application; and the potential impact that the proposed program would have on the relevant field and application; • The key risks/issues associated with the proposed program; • The impact that EM funding would have on the proposed program; and • Cost Rough Order of Magnitude (ROM) for the program and length of award

Submission Guidelines Cont'd.

Addendum	1 page maximum	Applicants are required to describe succinctly the qualifications, experience, and capabilities of the proposed Project Team, including: • Whether the Principal Investigator (PI) and Project Team have the skill and expertise needed to successfully execute the program plan; • Whether the applicant has prior experience which demonstrates an ability to perform tasks of similar risk and complexity; • Whether the applicant has worked together with its teaming partners on prior projects or programs; and • Whether the applicant has adequate access to equipment and facilities necessary to accomplish the effort and/or clearly explain how it intends to obtain access to the necessary equipment and facilities; and • Applicants may provide graphs, charts, or other data to supplement their Program Description.
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Concept Paper Criterion: Overall FOA Responsiveness and Viability of the Project (Weight: 100%)

This criterion involves consideration of the following factors:

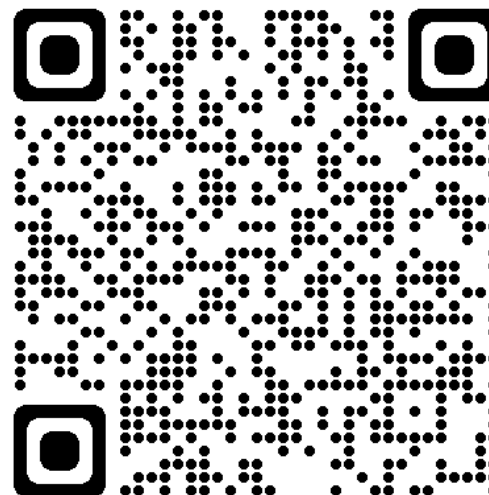
- The applicant clearly describes the proposed program objectives.
- The applicant has identified risks and challenges, including possible mitigation strategies, and has shown the impact that EM funding and the proposed project would have on the relevant field and application;
- The applicant has the qualifications, experience, capabilities and other resources necessary to complete the proposed program;
- The applicant references whether partnering with other institutions is an approach used in application; and
- The proposed work, if successfully accomplished, would clearly meet the objectives as stated in the FOA.

- **Concept Papers will be evaluated in accordance with criteria listed in FOA (see prior slide and FOA pg. 34)**
- **Based on the Concept Paper evaluations, selected applicants will be notified to request a Full Application (tentatively Aug 2023 timeframe)**
- **Additional information/instructions for Full Application will be provided at that time**

Questions?



DOE EM-MSIPP LinkedIn Page



DOE EM-MSIPP Program Page