

**U. S. DEPARTMENT OF ENERGY, OFFICE OF SCIENCE  
INTEGRATED SUPPORT CENTER—CHICAGO OFFICE**

**NATIONAL ENVIRONMENTAL POLICY ACT (NEPA)  
ENVIRONMENTAL EVALUATION NOTIFICATION FORM**

**To be completed by "Applicant," i.e., organization with responsibilities for a "Federal action" involving application to DOE for a permit, license, exemption or allocation, or other similar actions. For assistance with this Form, refer to "Instructions for Preparing ISC-CH F-560, Environmental Evaluation Notification Form."**

Solicitation/Award No. (if applicable): DE-FOA-0002181

Organization Name: American Museum of Science and Energy Foundation

Proposed Action Title: American Museum of Science and Energy Operations - grant

Total DOE Funding/Total Funding: 1,214,538

**I. Project Description: (Use explanation pages if additional space is required)**

**A. Proposed Project/Action (if applicable, delineate Federally funded/Non-Federally funded portions)**

Ongoing operations for two existing facilities:

- 1) American Museum of Science and Energy, Oak Ridge, Tennessee, Anderson County
- 2) K-25 History Center, Oak Ridge, Tennessee, Roane County

Both of these existing facilities will continue operations as a result of the grant.  
See the Description/Explanation Pages 1-3 below for additional detail.

**B. Would the project proceed without Federal funding?**

Yes	No
<input type="checkbox"/>	<input checked="" type="checkbox"/>

***If "yes," use explanation page.***

**II. Description of Affected Environment: (Use explanation pages if additional space is required)**

See the Description/Explanation Pages 1-3 below for additional detail.

III. Preliminary Questions:

- |   |                                 |   |
|---|---------------------------------|---|
| A. <u>Is the DOE-funded work routinely administrative or <i>entirely</i> advisory or a "paper study?"</u> | Yes<br><input type="checkbox"/> | No<br><input checked="" type="checkbox"/> |
|---|---------------------------------|---|

***If "Yes", ensure that the description in Section I reflects this and go directly to Section V.***

- B. Is there any potential whatsoever for: (Provide an explanation for each "Yes" response)

- |  |                          |                                     |
|--|--------------------------|-------------------------------------|
| 1. Work to be performed outdoors?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 2. Major modification of a building interior?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 3. Threat of violation of applicable statutory, regulatory, or permit requirements for environment, safety, and health?        | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 4. Siting, construction or major expansion of waste treatment, storage, or disposal facilities?                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 5. Disturbance to hazardous substances, pollutants, or contaminants preexisting in the environment?                            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 6. The presence of any environmentally-sensitive resources?  | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 7. Any potential whatsoever for high consequence impacts to human health or the environment?                                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 8. The work being connected to another existing/proposed activity that could potentially create a significant impact?          | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 9. Nearby past, present, and/or reasonably foreseeable future actions such that collectively significant impacts could result? | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 10. Scientific or public controversy, uncertainty over potential impacts, or conflicts regarding resource usage?               | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

***If "No" to ALL Section III.B. questions, go directly to Section V.***

IV. Potential Environmental Effects: (Provide an explanation for each "Yes" response)

- A. Environmentally Sensitive Resources: Could the proposed action potentially result in changes and/or disturbances to any of the following resources?

- |  | Yes                      | No                       |
|--|--------------------------|--------------------------|
| 1. Threatened/Endangered Species and/or Critical Habitats                          | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Other Protected Species (e.g., Burros, Migratory Birds, Pollinators)            | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Sensitive Environments (e.g., Tundra/Coral Reefs/Rain Forests)                  | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Cultural or Historic Resources  | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Important Farmland  | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Non-Attainment Areas for Ambient Air Quality Standards                          | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Class I Air Quality Control Region  | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Special Sources of Groundwater (e.g. Sole Source Aquifer)                       | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Navigable Air Space   | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Coastal Zones  | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Areas with Special National Designation (e.g. National Forests, Parks, Trails) | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. Floodplains and/or Wetlands  | <input type="checkbox"/> | <input type="checkbox"/> |

- B. Regulated Substances/Activities: Would the proposed action involve any of the following regulated items or activities?

- |  |                          |                          |
|--|--------------------------|--------------------------|
| 13. Natural Resource Damage Assessments  | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. Invasive Species or Exotic Organisms   | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. Noxious Weeds  | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. Clearing or Excavation greater than one acre or Removal of Trees Governed by Local Requirement | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. Dredge or Fill (under Clean Water Act, Section 404, greater than one acre)                     | <input type="checkbox"/> | <input type="checkbox"/> |

**B. Regulated Substances/Activities: Would the proposed action involve any of the following regulated items or activities? (continued)**

	Yes	No
18. Noise (in excess of regulations)	<input type="checkbox"/>	<input type="checkbox"/>
19. Asbestos Removal	<input type="checkbox"/>	<input type="checkbox"/>
20. Polychlorinated biphenyls (PCBs)	<input type="checkbox"/>	<input type="checkbox"/>
21. Import, Manufacture, or Processing of Toxic Substances	<input type="checkbox"/>	<input type="checkbox"/>
22. Chemical Storage/Use	<input type="checkbox"/>	<input type="checkbox"/>
23. Pesticide Use	<input type="checkbox"/>	<input type="checkbox"/>
24. Hazardous, Toxic, or Criteria Pollutant Air Emissions	<input type="checkbox"/>	<input type="checkbox"/>
25. Liquid Effluents	<input type="checkbox"/>	<input type="checkbox"/>
26. Spill Prevention/Surface Water Protection	<input type="checkbox"/>	<input type="checkbox"/>
27. Underground Injection	<input type="checkbox"/>	<input type="checkbox"/>
28. Hazardous Waste	<input type="checkbox"/>	<input type="checkbox"/>
29. Underground Storage Tanks	<input type="checkbox"/>	<input type="checkbox"/>
30. Radioactive or Radioactive Mixed Waste	<input type="checkbox"/>	<input type="checkbox"/>
31. Radiation Exposure	<input type="checkbox"/>	<input type="checkbox"/>
32. Nanoscale Materials	<input type="checkbox"/>	<input type="checkbox"/>
33. Genetically Engineered Microorganisms/Plants or Synthetic Biology	<input type="checkbox"/>	<input type="checkbox"/>
34. Ozone Depleting Substances	<input type="checkbox"/>	<input type="checkbox"/>
35. Greenhouse Gas Generation/Sustainability	<input type="checkbox"/>	<input type="checkbox"/>
36. Off-Road Vehicles	<input type="checkbox"/>	<input type="checkbox"/>
37. Biosafety Level 3-4 Laboratory	<input type="checkbox"/>	<input type="checkbox"/>
38. Research on Human Subjects or other Vertebrate Animals	<input type="checkbox"/>	<input type="checkbox"/>
39. Facility footprint exceeds 5,000 Square Feet	<input type="checkbox"/>	<input type="checkbox"/>

**C. Other Relevant Information: Would the proposed action involve the following?**


	Yes	No
40. Disproportionate Nearby Presence of Minority and/or Low Income Populations	<input type="checkbox"/>	<input type="checkbox"/>
41. Existing, Modified, or New Federal/State Permits	<input type="checkbox"/>	<input type="checkbox"/>
42. Involvement of Another Federal Agency (e.g. license/permit, funding, approval)	<input type="checkbox"/>	<input type="checkbox"/>
43. Action in a State with NEPA-type law	<input type="checkbox"/>	<input type="checkbox"/>
44. Expansion of Public Utilities/Services	<input type="checkbox"/>	<input type="checkbox"/>
45. Depletion of a Non-Renewable Resources	<input type="checkbox"/>	<input type="checkbox"/>
46. Subject to an Existing Institutional Work Planning and Control Process	<input type="checkbox"/>	<input type="checkbox"/>
47. Other Pertinent Information Which Could Impact Human Health or the Environment	<input type="checkbox"/>	<input type="checkbox"/>

**V. Applicant certification that to the best of their knowledge all information provided on this form is accurate:**

Does this disclosure contain: classified, sensitive business, or other exempt information that DOE would not be obligated to disclose pursuant to the Freedom of Information Act.

Yes       No

A. Organization Official (Name and Title): Alan Lowe, Executive Director, AMSE

Signature:  Date: 4/17/2020  
 e-mail: alan.lowe@amse.org Phone: 217-622-2611

B. Optional Secondary Approval (Name and Title): \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
 e-mail: \_\_\_\_\_ Phone: \_\_\_\_\_

Remainder to be completed by DOE

VI. DOE Concurrence/Recommendation/Determination:

A. DOE Project Director/Program Manager or Contract/Grant Management Specialist:

Has the Applicant completed this Form correctly?

Yes

No

Does an existing generic categorical exclusion apply?

If yes, indicate: In partnership with OTS, the document has been appropriately completed.

Name and Title: C. Johnathan Sitzlar, Contracting Officer's Representative

Signature: \_\_\_\_\_ Date: May 1, 2020

B. DOE NEPA Team Review (if requested):

Is the class of action identified in the DOE NEPA Regulations (Appendices A-D to Subpart D (10 CFR § 1021))?

Yes

No

If yes, specify the class(es) of action: B3.14

Name and Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

C. DOE Counsel (if requested):

Name and Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

D. DOE NEPA Compliance Officer:

The preceding pages are a record of documentation required under DOE Final NEPA Regulation, 10 CFR § 1021.410.

Action may be categorically excluded from further NEPA review. I have determined that the proposed action meets the requirements for Categorical Exclusion referenced above.

Action requires approval by Head of the Field Organization. Recommend preparation of an Environmental Assessment.

Action requires approval by Head of the Field Organization or a Secretarial Officer. Recommend preparation of an Environmental Impact Statement.

Comments/limitations if any:

NEPA Compliance Officer:

Name: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Determination contingent upon completion of all necessary regulatory consultations and compliance with all applicable statutory, regulatory, and permit/agreement requirements.

**Optional Additional Narrative:** (add additional detail to description to Sections I and II or explanations to responses in Sections III and IV).

Section 1 and Section 2: The American Museum of Science and Energy (AMSE), originally named the American Museum of Atomic Energy, was established in 1949 in a former cafeteria building to provide educational programs focused on the Department of Energy's (DOE) past, present, and future missions. In 1975, the museum moved to the Tulane Avenue facility, where it continued to provide the general public with energy information. The name of the museum was changed to the American Museum of Science and Energy in 1978. Public Law 106-554, enacted December 21, 2000, designated the museum operated by the Secretary of Energy in Oak Ridge, Tennessee, as the 'American Museum of Science and Energy.' See also 42 U.S.C. § 7142a. In 2018 AMSE moved to a newly renovated 15,000 square-foot (sf) space located at 115 Main Street East in Oak Ridge, Tennessee. This facility is located in Anderson County.

AMSE has been considered one of the top tourist attractions in the Knoxville area, and it attracts about 65,000 visitors per year. Among other activities, AMSE provides interactive curriculum-based classroom programs for school groups and STEM education programs. AMSE houses permanent and rotating exhibits, provides live demonstrations, hosts evening events consistent with the AMSE mission, and holds spring, summer, and fall camp programs for students. AMSE is also the starting point for bus tours of sites on the federal government's Oak Ridge Reservation, and it hosts the National Park Service (NPS) programs and events for the Manhattan Project National Historical Park. The facility operates seven (7) days a week (9am-5pm Tuesday – Saturday; 1-5pm on Sunday and Monday).

The AMSE facility includes an exhibit area for permanent and temporary exhibits. The facility also includes a lobby area with an information desk and monitors, two classrooms, one 150-seat lecture hall, a retail shop and office space for museum staff and volunteers. AMSE houses five major exhibit topic areas listed below and an Oak Ridge regional kinetic map of Oak Ridge and DOE's historical landmarks and video wall

- The Manhattan Project
- National Security
- Big Science
- Energy Leadership
- Environmental Restoration

In addition to the American Museum of Science and Energy, the AMSE Foundation is tasked with operating a second facility located in Roane County.

The K-25 History Center (K-25), opened in February 2020, tells the history of the Manhattan Project and the incredible story of the K-25 gaseous diffusion plant. Its mission is to both present the history of the site and the intense effort to create the atomic bomb, and to explain the science behind such an immense and important undertaking. Dedicated customer service representatives and volunteers work at K-25, and other AMSE staff members divide their time between AMSE and K-25. The Executive Director of AMSE is also the Executive Director of the K-25 History Center.

The hours of K-25 mirror those of AMSE. The facility, pictured below, includes an orientation theater, and exhibits showing the history of Oak Ridge and the Manhattan Project. Then the focus changes to the K-25 facility and the men and women who made it successful. A special exhibit space helps tell the story of K-25 and the Manhattan Project. Office and workspaces are available for both staff and volunteers.

Additionally, AMSEF partners with the Manhattan Project National Historical Park to present the story of the Manhattan Project when possible through activities such as special exhibits and public programs.

AMSE's mission is to educate visitors about the Manhattan Project history and DOE's impact on science, energy, environmental restoration and national security. More generally, AMSEF contributes to the advancement of the teaching of science, technology, engineering and mathematics (STEM), a mission vital to the continued success of DOE and our nation.

These activities benefit DOE in several ways. For example, exhibits at both AMSE and K-25 show how the Manhattan Project, and especially the work done in Oak Ridge as part of that work, changed the world. Through the immense efforts of the government, victory was gained in the war, and a new atomic age dawned. AMSEF tells that story and then shows how DOE continued to grow on that mission, serving our nation through research and the development of new technologies. In addition, AMSEF helps advance and highlight DOE's role in education, in advancing the important STEM disciplines that will determine the future of the country. And those educational efforts will also help advance the next generation of DOE employees, ensuring that the agency stays at the forefront of scientific and engineering research and development. It also should be noted that this support of AMSEF would continue DOE's vital role in and partnership with the Oak Ridge community, a community it created and that continues to be dedicated to helping advance the agency's mission.

Major Activities for the project can occur at both sites and are further described below.

**SPECIAL EXHIBITS:** Special exhibits will be produced at the K-25 History Center on a regular basis, typically every 3-6 months. At AMSE, a special exhibit will be installed in May, 2020, that will be shown until September, 2020. After that, the plan is to provide in the special exhibit space a series of virtual reality (VR) experiences teaching important lessons of science and engineering. Those experiences should be presented initially by October 1, 2020, with additions to the offerings being made every 6 to 12 months, depending on funding and the complexity of the content. At the same time in an adjacent space, AMSE plans to mount special exhibits on current technologies. These exhibits will change every 3 to 6 months, starting on October 1, 2020.

**PUBLIC PROGRAMS:** Public programs also will be provided regularly by AMSEF, typically with speakers in the spring and fall. This year, presentations are currently planned for May and August 2020. Depending on the speakers chosen and their calendars, the same months would be targeted for presentations in 2021. AMSEF hosts an annual fundraising event, scheduled this year for October 10, 2020.

**EDUCATIONAL PROGRAMS:** Educational programs are ongoing throughout the school year both at the museums and in classrooms. The exact dates depend upon the schools' schedules and needs. At the same time, AMSEF is expanding its online education presence. A summer camp is hosted by AMSEF every June. Likewise, AMSEF provides educational programming for the annual Secret City Festival each June in Oak Ridge.

**FUNDRAISING ACTIVITIES:** Development is ongoing at AMSEF through fundraising and membership activities. This work will increase with the hiring of the Operations Manager and a Development Director. The former will have a role in assisting with fundraising and the latter will be in charge of those efforts. The Operations Manager will be on board by June 1, 2020, and the Development Director by December 31, 2020.

**SPECIAL EVENTS:** In addition to educational programs, AMSEF also will develop special events. These will take many forms such as expert speakers, conferences, and community activities. Often these events will be done in concert with community partners, such as the National Park Service, the University of Tennessee, the City of Oak Ridge, and of course DOE.

