

US EPA ARCHIVE DOCUMENT

AGENCY: ENVIRONMENTAL PROTECTION AGENCY (EPA)

TITLE: “STUDENT PROGRAM FOR ENVIRONMENTAL EXCELLENCE IN DESIGN (SPEED)”

ACTION: Request for Applications (RFA)

RFA NUMBER: EPA-OAR-OTAQ-15-02

CATALOG OF FEDERAL DOMESTIC ASSISTANCE (CFDA) NO: 66.037

DATES: The closing date and time for receipt of application submissions, regardless of mode of submission, is **January 23, 2015, 4:00 p.m., Eastern Standard Time (EST)**. All hard copies of application packages must be received by the closing date and time in order to be considered for funding. Electronic submissions must be submitted to the EPA through Grants.gov (<http://www.grants.gov>) by **January 23, 2015, 4:00 p.m. EST** in order to be considered for funding. Applications received after the closing date and time will not be considered for funding.

To allow for efficient management of the competitive process, the EPA requests submittal of an informal notice of an “**Intent to Apply**” by **December 15, 2014** to klavon.patty@epa.gov. Submission of the “Intent to Apply” is optional; it is a process management tool that will allow the EPA to better anticipate the total staff time required for efficient review, evaluation, and selection of submitted applications.

SUMMARY: This notice announces the availability of funds and solicits applications from eligible entities for the creation and management of the Student Program for Environmental Excellence in Design (SPEED).

The SPEED aims to increase students’ awareness and understanding of the environmental benefits associated with increased fuel efficiency, reduced carbon intensity in transportation fuels, and reduced emissions in advanced vehicles. Through the SPEED, graduate-level students and senior-level undergraduate students in the science, technology, and engineering disciplines would be provided opportunities, and in certain cases financial support, to collaborate with EPA staff at the EPA’s National Vehicle and Fuel Emissions Laboratory (NVFEL) in Ann Arbor, Michigan. Students would also obtain research training on-site at the NVFEL.

This project has three components: The first component focuses on development of a graduate-level research training and support partnership between the EPA and the recipient to continue advanced engine research and development. Through the SPEED, the recipient would work with the EPA’s NVFEL to foster a collaborative research relationship between EPA’s NVFEL, graduate-level engineering students, and faculty. Funding support for participating graduate-level students performing graduate level research on-site at the NVFEL would be provided under this component of the project.

The second component of the SPEED would be to design and manage a program to introduce and motivate undergraduate-level students to consider the professional pursuit of careers in the science, technology, and engineering disciplines. This component of the program would have an interdisciplinary perspective with a focus on improving public health and the environment through design projects and training for participating students.

The third component of the SPEED focuses on design and development of graduate-level major transportation-related environmental policy project experiences. The recipient would work with the EPA's Transportation and Climate Division (TCD) through a collaborative relationship focusing on high level policy analysis, research and development between EPA's Office of Transportation and Air Quality (OTAQ), environmental policy students, and faculty.

FUNDING/AWARDS:

The total estimated funding for this competitive opportunity shall not exceed \$1,400,000 to be funded incrementally over a four-year period. The EPA anticipates awarding one (1) cooperative agreement resulting from this announcement, subject to availability of funds, the quality of applications received, and other applicable considerations.

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I. FUNDING OPPORTUNITY DESCRIPTION

A. Background

For over 25 years, the EPA's National Vehicle & Fuel Emissions Laboratory (NVFEL), a part of the Office of Transportation and Air Quality (OTAQ), has led technology and policy initiatives in transportation, leading to the development of vehicles and engines that are cleaner and more efficient, demonstrating the feasibility of achieving future emissions standards. Improving fuel efficiency offers a wide range of societal benefits such as lowering consumers' fuel expenditures, conserving capital for the U.S. economy, reducing U.S. dependence on imported oil, and potentially reducing emissions of greenhouse gases (GHGs), and criteria pollutants. Reducing emissions of global-warming

gases in transportation is a critical element of worldwide strategies for mitigating the effects of climate change, while reducing criteria pollutant emissions offers cleaner air and reduced rates of respiratory disease and mortality associated with toxic air pollution.

Historically, the NVFEL has maintained strong collaborative relationships with universities and other institutions of higher learning to address the technology development challenges in advanced engines and vehicles. The NVFEL seeks to strengthen these relationships by providing federal funding to support work that could yield a significant contribution to the development of market-feasible technologies that may substantially reduce GHG and criteria pollutants emitted by heavy-duty and light-duty vehicles. Based on the success of past experiences, a collaborative program is desired, whereby participants may gain access to federal staff and, where possible, test facilities, to further their research programs. This achieves favorable interaction between EPA staff and principle investigators, helping ensure that the proposed projects relate more closely to emerging technology and policy issues faced by the transportation industry and the associated regulatory agencies.

The NVFEL strives to assist in building the research capacity of educational institutions to address ways to manage air quality and increase undergraduate and graduate engineering human capital through the support of student programs in automotive emissions research. The NVFEL has supported these activities through grant funding and by providing expertise and technical resources to support similar programs since its inception. In addition to the investigative research, a cooperative relationship with the NVFEL provides educational institutions the elements to help ensure that engineering and technical science programs are supported.

B. Scope of Work

The EPA's OTAQ is soliciting applications from eligible entities capable of designing and managing the *Student Program for Environmental Excellence in Design (SPEED)*. The SPEED is a culmination of the investigative studies, collaboration with NVFEL, and student programs that federal funding has supported through the years.

With our strong interest in developing workforce-based educational expertise in the engineering fields as described in this section, the EPA recommends that applicants give important consideration to how they will provide for and coordinate student activities with staff on-site at the NVFEL in Ann Arbor, Michigan, in their decision to compete for funding under this project. The NVFEL is the site of EPA's core compliance, regulation development and advanced technology development activities. It will be the center for collaborative interactions with students. Participants from the recipient organization will be required to communicate frequently with NVFEL staff and spend extended periods of time on-site at the NVFEL to complete the investigation and demonstration of their technological projects. Applicant's budgets should reflect any travel and/or communication costs; however, please note that cost-effectiveness as it relates to overhead and travel costs will be evaluated in Section V. of this announcement.

In their applications, applicants must address how they will accomplish each of the SPEED's three major components as described below:

- 1. Development of Graduate-level research training and support.** This program element involves a research partnership between the EPA's NVFEL and the recipient to continue advanced vehicle and vehicle propulsion research and development by providing federal funding support for graduate-level students to perform such research on-site at the NVFEL in Ann Arbor, Michigan. Specifically, the EPA is interested in supporting research and development efforts potentially resulting in cost-effective energy-saving technologies and reduced GHG emissions and criteria pollutants in both heavy-duty and light-duty vehicles.
 - Applications must propose graduate-level research topics that focus on studies and engine development that could yield a significant contribution to reducing GHG emissions and the development of advanced technologies, processes, and test methods that will lead to these reductions. Suggested topical areas to propose include applications or uses of state-of-the-art analysis, experimental techniques or test methods that would promote advances in internal combustion engines, low-GHG transportation fuels, connected and autonomous vehicle systems, or emissions measurement methods. However, applicants may also focus on other relevant areas worthy of further investigation. The activities and investigative aspects of the project as described above must involve a cooperative relationship with the EPA.
 - Applications must also demonstrate how this component of the SPEED will provide education and training support to graduate-level students to foster interest, understanding, and the ability to pursue technical careers performing studies and research in the fields of engineering, environmental science and physical sciences.

Applicants must also address the following in their application:

- How they would establish a merit-based process for identifying and selecting qualified graduate-level students who would be provided the opportunity to conduct their program research in partnership with the EPA on-site at the NVFEL in Ann Arbor, Michigan. Applicants should also include a description of outreach efforts they would use to attract qualified students for this project.
 - A description of the process that will be used to calculate and administer stipends for graduate-level students participating in the SPEED.
- 2. Development of Senior-Level Undergraduate major design project experiences.** The second component under this project relates to the design and development of an engineering research program for senior-level (4th year)

undergraduate students. Students must be prepared for engineering practice through a curriculum culminating in a major design experience based on the knowledge and skills acquired in earlier course work and incorporating appropriate engineering standards and multiple practical real-world experience.

- Applications must include a description of proposed projects to be supported by this component of the SPEED. Proposed research projects under this component of the SPEED must address at least three (3) and up to five (5) of the following research topics:
 - **Practical means to achieve the highest theoretical potential for internal combustion engines.** As turbocharged gasoline engines become a more significant portion of the light-duty fleet, new challenges with energy management provide new opportunities for more efficient and clean combustion as well as innovative exhaust heat recovery systems, targeting over 50 percent system brake thermal efficiency. Technology pathways may include lean-burn combustion engines, dilute (EGR) combustion engines, low heat rejection engines, and exhaust waste-heat energy recovery systems.
 - **Liquid transportation fuels with ultra-low “well-to-tank” GHG emissions.** Achieving sustainable GHG emissions from the transportation sector in the 2050 timeframe, the carbon intensity (GHG/BTU) of liquid transportation fuels must be lowered by 60%-90%. To achieve these levels of GHG reduction from liquid transportation fuels, breakthroughs in the use of natural gas, corn or other cellulosic feedstocks – sources that are plentiful in the U.S. – must be identified, and realistic, effective pathways for utilizing these resources must developed.
 - **Heavy-duty engines with ultra-low NO_x and PM emissions.** Lowering criteria emissions of heavy-duty engines to oxides of nitrogen (NO_x) and particulate matter (PM) levels that are less than one-tenth of the 2010 Heavy-Duty On-Highway standard would help enable heavily-populated areas to improve regional air quality while reducing GHGs.
 - **Connected and autonomous vehicle systems.** Identifying strategies for combining vehicle-to-vehicle and vehicle-to-infrastructure communication systems with autonomous vehicle systems may provide a pathway for significant reductions in emissions and in demand for fossil fuels. Recent analyses have shown that connected vehicle systems can reduce GHG and near-roadway emissions associated with vehicles that are stationary,

idling, and traveling in a stop-and-go pattern due to congestion relative to those traveling in free-flow conditions.

- **Characterization of ultra-low emissions in light-duty vehicles.** Reducing emissions-related respiratory diseases depends on achieving a greater understanding of the formation mechanisms and composition of ultra-fine particulate matter through experimental evaluation and validation with improved internal engine combustion models.

Applications must also address the following:

- That the instruction provided under this component of the SPEED would be team-based projects, including hands-on activities and practical real-world experiences. For example, students would work in a laboratory under controlled test conditions to evaluate emissions measurement techniques applied to real-world operating cycles.
 - That the projects would focus on reducing GHG emissions through application or use of advanced technologies, processes and test methods. For example, a project could include measurement and detailed analysis of carbon dioxide exhaust emissions from a test vehicle operating over a prescribed test cycle.
 - That the projects would be based on sound, established science and appropriate for senior-level undergraduate students in a university or college setting.
- 3. Graduate Research Transportation-Related Policy Project.** The third component under this project relates to the design and development of a transportation-related environmental policy research program for graduate-level students. Under this component, students would be provided experiences designed to educate them on conducting high-level policy analysis, research and development through a curriculum culminating in a major transportation-related environmental policy-relevant project or experience.

Applications must include a description of proposed projects to be supported by this component of the SPEED. Proposed research projects under this component of the SPEED must address any one (1) or more of the following research topics:

- Solutions for the barriers to expanded biofuels production and consumption and identification of prospective policy options that would remove barriers or provide incentives for increased use of biofuels.
- Evaluation of the full lifecycle GHG emissions from alternative fuels, including (but not limited to) natural gas, unconventional crude, electricity, and hydrogen. This project could evaluate potential

indirect/market impacts of using these fuels in the transportation sector rather than for non-transportation uses.

- Analysis of the possibilities for - and the barriers to - achieving a transportation system in the year 2050 that could achieve 50-80% reductions in GHG emissions from transportation relative to current levels. The analysis should consider emerging technologies, demographic trends, and energy sources, and should not be bound by the limitations or design of today's built environment or transportation network.
- Analysis of the potential GHG benefits and disbenefits of autonomous vehicles (AVs), and an examination of policy options that would incentivize the realization of these benefits. The analysis may consider technological and social factors, including, but not limited to, more efficient vehicle technologies enabled by AVs, and potential impacts on vehicle miles traveled (VMT), traffic management and vehicle drive cycles.

Applications must also address the following for this component of the project:

- That student involvement under this component of the SPEED would be project-based, including collaboration on practical, “real-world” programs. For example, students may work with federal employees on Agency programs, policy options and research projects aimed at reducing carbon and other harmful air emissions.
- That the projects would focus on reducing GHG and other harmful air emissions through the application or use of innovative applications and advancements in modeling, research, analysis, policy instruments, and other programmatic technical or analytical solutions. For example, a project may include innovative ways to configure port operations to improve efficiency and reduce emissions; new analysis on the use of intelligent vehicle systems to achieve operational efficiencies and reduce emissions from heavy duty trucks; or new methods of quantifying the lifecycle greenhouse gas impacts from low carbon transportation fuels.
- That the projects would be based on sound, established science, sound principles of research and analysis, and that they be appropriate for graduate-level students in a university or college setting.

C. EPA Strategic Plan Linkage & Anticipated Outcomes, Outputs & Performance Measures

Pursuant to Section 6a of EPA Order 5700.7, “Environmental Results under EPA

Assistance Agreements,” EPA must link proposed assistance agreements to the Agency’s Strategic Plan. The EPA also requires that grant applicants and recipients adequately describe environmental outputs and outcomes to be achieved under assistance agreements (see EPA Order 5700.7, Environmental Results under Assistance Agreements (http://www.epa.gov/ogd/epa_order_5700_7a1.pdf)).

1. Linkage to EPA Strategic Plan. All applications must support progress towards EPA’s 2014-2018 Strategic Plan Goal 1:”Addressing Climate Change and Improving Air Quality” Objective 1.1: “Address Climate Change” which states “Minimize the threats posed by climate change by reducing greenhouse gas emissions and taking actions that help to protect human health and help communities and ecosystems become more sustainable and resilient to the effects of climate change.” Applications must also support progress towards Objective 1.2 “Improve Air Quality” which states: “Achieve and maintain health- and welfare-based air pollution standards and reduce risk from toxic air pollutants and indoor air contaminants.”

The EPA’s Testing and Advanced Technology Division (TATD) provides a full range of emission testing services for motor vehicles and trucks, highway and non-road engines, and fuels used in the transportation market. In collaboration with other divisions, TATD’s testing staff design and conduct certification, fuel economy, in-use compliance, fuels and fuel additives analysis, exhaust compounds analysis, and special testing programs to support rulemakings, compliance programs, enforcement actions, and test procedures and methods development.

The EPA’s Transportation and Climate Division (TCD) coordinates OTAQ’s strategic climate programs. It also implements programs required by the Clean Air Act to be included in State Implementation Plans (SIPs) to address the impact of in-use vehicles and transportation systems on air quality. TCD develops testing protocols, evaluates new technologies, and performs technical and economic analyses of vehicle and engine technologies to ascertain their capabilities to reduce emissions and improve fuel economy. The division also develops carbon accounting tools and methodologies that assess and track GHG and criteria emissions from goods movement. This enables shippers and carriers to improve their supply chain performance. Finally, TCD provides grant funding for vehicle and engine emission reduction programs and supports transportation initiatives aimed at reducing vehicle miles traveled.

Please read [EPA’s FY 2014-2018 Strategic Plan](#) for more information.

2. Outputs. The term “output” means an environmental activity, effort, and/or associated work product related to an environmental goal and objective that will be produced or provided over a period of time or by a specified date. Outputs may be quantitative or qualitative but must be measurable during an assistance

agreement funding period.

Expected outputs from the project(s) to be funded under this announcement may include but are not limited to the following: Refinement of existing, and identification of novel engine and vehicle systems needed to achieve ultra-low emissions and reduced GHGs as well as expand the fundamental scientific/engineering understanding and increase the undergraduate and graduate engineering human capital in areas of interest to the program.

Progress reports and a final report will also be a required output, as specified in Section VI.C. of this announcement, "Reporting Requirement."

3. Outcomes. The term "outcome" means the result, effect or consequence that will occur from carrying out an environmental program or activity that is related to an environmental or programmatic goal or objective. Outcomes may be environmental, behavioral, health-related, or programmatic in nature, but must be quantitative. They may not necessarily be achievable within an assistance agreement funding period.

The project(s) to be funded under this announcement are expected to produce at least one, and preferably all, of the following environmental outcomes: Expanded interest and human capital in career fields of vehicle technologies, engineering, and the like; increasing fuel efficiency and reducing emissions with advanced engines, vehicles and fuels, aimed at improving health-related and global climate emissions.

4. Performance Measures. The applicant must also develop performance measures they expect to achieve through their proposed activities and describe them in the application. These performance measures will be the mechanism to track progress concerning successful process and outcome strategies and will provide the basis for developing lessons to inform future recipients. It is expected that the description of performance measures will include the following:

- Demonstration of analysis, experimental techniques, and test methods or processes that lead to more efficient and clean engine and vehicle technologies.
- Evidence of collaboration with EPA on novel research, and in successful completion of graduate-level and senior-level undergraduate research and design projects.

The following are questions to consider when developing output and outcome measures of quantitative and qualitative results:

- i) What are the measurable short term and longer term results the project will achieve?
- ii) How does the plan measure progress in achieving the expected results

(including outputs and outcomes) and how will the approach use resources effectively and efficiently?

D. Supplementary Information.

The statutory authority for this action is Clean Air Act, Section 103 (b)(3) which authorizes the award of grants/cooperative agreements for research, investigation, experiments, demonstrations, surveys and studies related to the causes, effects, extent, prevention and control of air pollution.

Demonstrations must involve new or experimental technologies, methods, or approaches, where the results of the project will be disseminated so that others can benefit from the knowledge gained in the demonstration project. A project that is accomplished through the performance of routine, traditional, or established practices, or a project that is simply intended to carry out a task rather than transfer information or advance the state of knowledge, however worthwhile the project might be, is not considered a demonstration project. Implementation activities are not eligible for funding under this announcement.

II. AWARD INFORMATION

A. What is the amount of funding available?

The total estimated funding for this competitive opportunity is approximately \$1,400,000 to be funded incrementally over a four-year period depending upon the availability of Agency funds and other applicable considerations.

B. Partial Funding.

In appropriate circumstances, the EPA reserves the right to partially fund applications by funding discrete portions or phases of proposed projects. If the EPA decides to partially fund an application, it will do so in a manner that does not prejudice any applicants or affect the basis upon which the application was evaluated and selected for award, and therefore maintains the integrity of the competition and selection process.

C. How many agreements will EPA award in this competition?

The EPA anticipates award of approximately one (1) cooperative agreement resulting from this announcement. Expected annual funding is estimated at \$350,000 per year, over a four-year period, subject to the availability of funds, quality of evaluated applications, and other applicable considerations.

The EPA reserves the right to make additional awards under this announcement, consistent with Agency policy and guidance, if additional funding becomes available after the original selection is made. Any additional selections for awards will be made no later than six months from the date of the original selection.

The EPA reserves the right to reject all applications and make no awards.

D. What is the project period for awards resulting from this solicitation?

The estimated project period for awards resulting from this solicitation shall not exceed four (4) years estimated to begin in August 2015.

E. Funding Type

The funding for selected projects will be in the form of a cooperative agreement. Cooperative agreements permit substantial involvement between the EPA Project Officer and the selected applicant(s) in the performance of the work supported. Although the EPA will negotiate precise terms and conditions relating to substantial involvement as part of the award process, the anticipated substantial Federal involvement for this project will be:

- close monitoring of the successful applicant's performance to verify the results proposed by the applicant;
- collaboration during performance of the scope of work;
- in accordance with 40 CFR 31.36(g), review of proposed procurement;
- approving qualifications of key personnel (EPA will not select employees or contractors employed by the award recipient);
- review and comment on reports prepared under the cooperative agreement (the final decision on the content of reports rests with the recipient).

III. ELIGIBILITY INFORMATION

A. Eligible Entities

In accordance with CFDA 66.037, applications will be accepted from states, local governments, territories, Indian tribes, and possessions of the U.S., including the District of Columbia, international organizations, public and private universities and colleges, hospitals, laboratories, and other public or private non-profit institutions.

Non-profit organization, as defined by OMB Circular A-122, located at 2 CFR Part 230, means any corporation, trust, association, cooperative or other organization that: (1) is operated primarily for scientific, educational, service, charitable or similar purposes in the public interest; (2) is not organized primarily for profit; and (3) uses its net proceeds to maintain, improve and/or expand its operations. Note that OMB Circular A-122 specifically excludes the following types of organizations from the definition of "non-profit organization" because they are separately defined in the Circular: (i) colleges and universities; (ii) hospitals; (iii) state, local and federally-recognized Indian tribal governments; and (iv) those non-profit organizations that are excluded from coverage of this Circular in accordance with paragraph 5 of the Circular. While not considered to be a

“non-profit organization(s)” as defined by OMB Circular A-122, colleges and universities, hospitals, state, local and federally-recognized Indian tribal governments are, nevertheless, eligible to submit applications under OMB Circular A-122 and this RFA.

For-profit organizations are not an eligible entity for this funding opportunity. Additionally, non-profit organizations described in Section 501(c)(4) of the Internal Revenue Code that engage in lobbying activities as defined in Section 3 of the Lobbying Disclosure Act of 1995 are not eligible to apply.

B. Cost Sharing or Matching

No matching funds are required under this competition. Although cost-sharing/matching is not required as a condition of eligibility under this competition, under Section V of this announcement, the EPA will evaluate proposals based on a leveraging criteria.

Leveraging is generally when an applicant proposes to provide its own additional funds/resources or those from third party sources to support or complement the project they are awarded under the competition which are above and beyond the EPA grant funds awarded. Any leveraged funds/resources, and their source, must be identified in the proposal (See Section IV of this announcement.) Leveraged funds and resources may take various forms as noted below.

Voluntary cost share is a form of leveraging. Voluntary cost sharing is when an applicant voluntarily proposes to legally commit to provide costs or contributions to support the project when a cost share is not required. Applicants who propose to use a voluntary cost share **must** include the costs or contributions for the voluntary cost share in the project budget on the SF-424. If an applicant proposes a voluntary cost share, the following apply:

- A voluntary cost share is subject to the match provisions in the grant regulations (40 CFR 30.23 or 40 CFR 31.24, as applicable).
- A voluntary cost share may only be met with eligible and allowable costs.
- The recipient may not use other sources of federal funds to meet a voluntary cost share unless the statute authorizing the other federal funding provides that the federal funds may be used to meet a cost share requirement on a federal grant.
- The recipient is legally obligated to meet any proposed voluntary cost share that is included in the approved project budget. If the proposed voluntary cost share does not materialize during grant performance, then EPA may reconsider the legitimacy of the award and/or take other appropriate action as authorized by 40 CFR Parts 30 or 31 as applicable.

Other leveraged funding/resources that are not identified as a voluntary cost share:

This form of leveraging may be met by funding from another federal grant, from an applicant's own resources, or resources from other third party sources. This form of leveraging should not be included in the budget and the costs need not be eligible and

allowable project costs under the EPA assistance agreement. While this form of leveraging should not be included in the budget, the grant workplan should include a statement indicating that the applicant is expected to produce the proposed leveraging consistent with the terms of the announcement and the applicant's proposal. If applicants propose to provide this form of leveraging, the EPA expects them to make the effort to secure the leveraged resources described in their proposals. If the proposed leveraging does not materialize during grant performance, then the EPA may reconsider the legitimacy of the award and/or take other appropriate action as authorized by 40 CFR Parts 30 or 31 as applicable.

C. Threshold Eligibility Criteria

These are requirements that, if not met by the time of application submission, will result in elimination of the application from consideration for funding. Only applications from eligible entities (see III.A. above) that meet all of these criteria will be evaluated against the ranking factors in Section V. of this announcement. Applicants deemed ineligible for funding consideration as a result of the threshold eligibility review will be notified within 15 calendar days of the ineligibility determination.

1.
 - a. Applications must substantially comply with the application submission instructions and requirements set forth in Section IV. of this announcement or they will be rejected. Where a page limit is expressed in Section IV. with respect to the narrative proposal, pages in excess of the page limitation will not be reviewed.
 - b. Applications must be received by the EPA or through www.grants.gov, as specified in Section IV. of this announcement, on or before the application submission deadline published in Section IV. of this announcement. Applicants are responsible for ensuring that their application reaches the designated person/office specified in Section IV. of the announcement by the submission deadline.
 - c. Applications received after the submission deadline will be considered late and returned to the sender without further consideration unless the applicant can clearly demonstrate that it was late due to EPA mishandling or because of technical problems associated with www.grants.gov. Where Section IV. requires application receipt by a specific person/office by the submission deadline, receipt by an agency mailroom is not sufficient. Applicants should confirm receipt of their application with the Agency contact listed in Section VII. of this announcement as soon as possible after the submission deadline—failure to do so may result in your application not being reviewed.
2. Applications must support EPA Strategic Plan Goal 1 “Addressing Climate Change and Improving Air Quality”. See Section I.C. for details.

3. Hard copy applications will only be accepted via an **express delivery service**. The EPA will not accept applications submitted via e-mail, fax or standard First Class Mail delivery by the U.S. Postal Service.
4. Applications must comply with the features and requirements listed in Section I, Part B. Scope of Work.
5. Applications must address each of the three (3) components described in Section I.B. of this announcement. This includes identifying and addressing at least three (3) areas of research as described in Section I.B.2.
6. For a proposal to be considered eligible for funding, substantive project-related work included in the proposal must be planned to be initiated within one year of award.

IV. APPLICATION AND SUBMISSION INFORMATION

A. How to Obtain an Application Package

Applicants can download individual grant application forms from EPA's Office of Grants and Debarment website at: <http://www.epa.gov/ogd/AppKit/application.htm> .

To obtain a hard copy of materials, please send an email or written request to the Agency contact listed in Section VII. of this announcement.

B. Mode of Application Submission

Applicants have the following options to submit their applications: 1) Hard copy by express delivery service to the specified EPA contact below, or 2) electronically through grants.gov as explained in Appendix A. Applications will not be accepted via fax, email, or standard first class mail delivery by the U.S. Postal Service. All applications must be prepared, and include the information, as described below in Section IV.C. "Content of Application," regardless of mode of transmission.

1. Hard Copy Submission

Please provide one original application package (including signed and completed SF 424 and SF 424A forms) - **no binders or spiral binding** - to:

Hard Copy via Express Delivery (FedEx, UPS, DHL, USPS etc.)

U.S. Environmental Protection Agency
ATTN: Patty Klavon
OAR/OTAQ/TATD-IO
2565 Plymouth Rd.

Ann Arbor, MI 48105
Phone: (734) 214-4476

Hard Copy Application Submission Deadline

All hard copy application packages must be received by Patty Klavon at the address above **by January 23, 2015, 4:00 p.m. EST.**

2. Grants.gov Submission (see Appendix A, Grants.gov Submission Instructions)

Application Submission Deadline: Your organization's authorized official representative (AOR) must submit your complete application electronically to EPA through Grants.gov (<http://www.grants.gov>) no later than **January 23, 2015, 4:00 p.m. EST.**

C. Content of Application Package Submission

All application submissions, regardless of mode of submission, must contain completed and signed grant application forms, as well as a Narrative Proposal, as described below.

Grant Application Forms. Please be sure to include the organization fax number and email address in Block 5 of the Standard Form SF 424. The forms are available at <http://www.epa.gov/ogd/AppKit/application.htm>.

- Standard Form 424, *Application for Federal Assistance*
- Standard Form 424A, *Budget Information – Non-Construction Programs*
- Standard Form 424B, *Non-Construction Programs*
- Standard Form 6600-06, *Certification Regarding Lobbying*
- EPA Form 4700-4, *Pre-Award Compliance Review Report for All Applicants Requesting Federal Financial Assistance*
- EPA Form 5700-54, *Key Contacts Form*
- Narrative Proposal (**as described below**)

Narrative Proposal

The Narrative Proposal (**sections 1-3 below**) must not exceed a maximum of eight (8) single-spaced typewritten pages, including the Summary Page. Supporting materials, such as resumes and letters of support, can be submitted as attachments and are not included in the 8 page limit.

- 1. Summary Information Page** (recommended not to exceed one page)
 - a. Project Title
 - b. Applicant Information. Include applicant (organization) name, address, contact person, phone number, fax and e-mail address.

- c. Funding Requested. Specify the amount you are requesting from the EPA.
- d. Total Project Cost. Specify total cost of the project. Identify funding from other sources, including cost share or in-kind resources.
- e. Project period. Provide beginning and ending dates. (Projects are anticipated to begin date and end no later than date.)
- f. DUNS number – See Section VI.C. for details.
- g. List of components addressed in the workplan, including the specific research areas that will be addressed under Component 2 (see Section I.B. of this announcement.)

2. Narrative Proposal Work-Plan

The narrative proposal work-plan must explicitly describe how the proposed project meets the guidelines established in Sections I-III of this announcement (including the threshold eligibility criteria in Section III.C.) and must address each of the evaluation criteria set forth in Section V.

- a. **Project Summary/Approach:** The project summary shall contain the following components:
 - i. Detailed project summary, description of specific actions and methods to be undertaken and the responsible institutions, including estimated time line for each task.
 - ii. Description of how the project will address Component 1 listed in Section I.B. of this announcement.
 - iii. Description of how the project will address Component 2 listed in Section I.B. of this announcement.
 - iv. Description of how the project will address Component 3 listed in Section I.B. of this announcement.
 - ii. Description of the associated work products to be developed.
 - iii. Explanation of project benefits to the public, and specifically the potential audience(s) served.
 - iv. Description of the roles of the applicant and partners, if any.
 - v. Description of the applicant's organization and experience related to the proposed project.
 - vi. Description of staff expertise/qualifications, staff knowledge, and resources or the ability to obtain them, to successfully achieve the goals of the proposed project.
 - vii. Description of the applicant's approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner.

- viii. Description of how the budget and estimated funding amounts for each work component/task will make the most efficient use of EPA funds used in collaborative training of students by minimizing direct costs for administrative support.

***Selected applicant(s) will need to submit a copy of their current indirect cost rate that has been negotiated with a federal cognizant agency prior to award.**

b. Environmental Results—Outcomes, Outputs and Performance Measures

Identify the expected quantitative and qualitative outcomes and outputs of the project (**See Section I**), including what performance measurements or other means will be used to track and measure your progress towards achieving the expected outcomes and outputs and how the results of the project will be evaluated.

c. Programmatic Capability and Past Performance

Submit a list of federally funded assistance agreements (assistance agreements include Federal grants and cooperative agreements but not Federal contracts) similar in size, scope and relevance to the proposed project that your organization performed within the last three years (no more than five agreements, and preferably EPA agreements) and describe (i) whether, and how, you were able to successfully complete and manage those agreements and (ii) your history of meeting the reporting requirements under those agreements including whether you adequately and timely reported on your progress towards achieving the expected outputs and outcomes of those agreements (and if not, explain why not) and whether you submitted acceptable final technical reports under the agreements. In evaluating applicants under these factors in Section V., EPA will consider the information provided by the applicant and may also consider relevant information from other sources, including information from EPA files and from current/prior grantors (e.g., to verify and/or supplement the information provided by the applicant). If you do not have any relevant or available past performance or reporting information, please indicate this in the proposal and you will receive a neutral score for these factors (a neutral score is half of the total points available in a subset of possible points). If you do not provide any response for these items, you may receive a score of 0 for these factors.

d. Voluntary cost share/match and other leveraged funds (See Section III.B. also)

Demonstrate how you will leverage additional funds/resources beyond the grant funds awarded to support the proposed project activities and how these funds/resources will be used to contribute to the performance and success of the proposed project. This includes but is not limited to funds and other resources leveraged from businesses, labor organizations, non-profit organizations, education and training providers, and/or Federal, state, tribal, and local governments, as appropriate. Describe the amount and type of leveraged resources to be provided, how you will obtain the leveraged resources, the likelihood the leveraging will materialize during grant performance, the strength of the leveraging commitment, and the role the leveraged resources will play to support the proposed project activities. Selected applicants are expected to abide by their proposed leveraging commitments during grant performance and the failure to do so may affect the legitimacy of the award.

3. Detailed Budget Narrative (See Appendix B, Budget Sample)

Clearly explain how the EPA funds will be used. This section provides an opportunity for a narrative description of the budget found in the SF-424A. Applicants must itemize costs related to personnel, fringe benefits, contractual costs, travel, equipment, supplies, other direct costs, indirect costs, and total costs.

Please note that cost effectiveness as it relates to overhead and travel costs will be evaluated in Section V. of this announcement.

4. (OPTIONAL) Attachments. These are optional and are not included in the eight (8) page limit. Nor are these attachments considered during evaluation of an applicant's application.

- a. Biographical Sketch.** Provide resumes or curriculum vitae for all principal investigators and any other key personnel.
- b. Negotiated Indirect Cost Rate Agreement.**
- c. Quality Assurance Narrative Statement.**
- d. Support Letters.** These should indicate how the supporting organization will assist in the project.

D. Submission Dates and Times

The closing date and time for receipt of application submissions, regardless of mode of submission, is **January 23, 2015 at 4:00 pm EST**. All hard copies of application

packages must be received by the Agency contact by **January 23, 2015, 4:00 p.m. EST**; electronic submissions via Grants.gov must be submitted to www.grants.gov by **January 23, 2015, 4:00 p.m. EST**. Applications received or submitted electronically after the closing date and time will not be considered for funding.

E. Additional Provisions for Applicants Incorporated into the Solicitation

Rights to inventions conceived or first reduced to practice in the performance of work under the cooperative agreement will be governed by 35 U.S.C. § 202. Please note that while eligible entities normally retain title to inventions they conceive or reduce to practice in cooperative agreements with the government, the funding agreement may provide otherwise if EPA determines at the time of funding that a restriction or elimination of the right to title in the resulting inventions would better promote commercialization, public availability, or government needs.

Additional provisions that apply to this solicitation and/or awards made under this solicitation, including but not limited to those related to confidential business information, contracts and sub-awards under grants, and proposal assistance and communications, can be found at http://www.epa.gov/ogd/competition/solicitation_provisions.htm. These, and the other provisions that can be found at the website link, are important, and applicants must review them when preparing proposals for this solicitation. If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

V. APPLICATION REVIEW INFORMATION

Only eligible entities whose application(s) meet the threshold criteria in Section III. of this announcement will be reviewed according to the evaluation criterion set forth below. Applicants should explicitly address these criteria as part of their application package submittal. Each application will be rated under a points system, with a total of 110 points possible.

A. Evaluation Criteria

Criteria	Maximum Points Per Criterion
<p>1. <u>Project Summary/Approach:</u> Under this criterion, the Agency will evaluate the following factors: (i) (15 pts) the extent and quality to which the narrative proposal includes a well-conceived strategy for addressing the requirements in Section I, Parts B (Scope of Work) and C (EPA Strategic Plan Linkage and Anticipated Outcomes/Outputs), (ii) (10 pts) whether the narrative proposal sets forth a reasonable time schedule for the execution of the tasks associated with the project and for achieving the project goals and objectives by</p>	<p>25</p>

<p>project end.</p>	
<p>2. <u>Environmental Results—Outcomes, Outputs and Performance Measures:</u> Under this criterion, the Agency will evaluate the effectiveness of the applicant’s plan for tracking and measuring its progress toward achieving the expected project outputs and outcomes, including those identified in Section I. of this announcement. In addition, the Agency will evaluate the performance measures proposed by the applicant and how they will be used to help track and measure the applicant’s progress towards achieving the expected outputs and outcomes.</p>	<p>10</p>
<p>3. <u>Programmatic Capability and Past Performance:</u> Under this criterion, applicants will be evaluated based on their ability to successfully complete and manage the proposed project taking into account their:</p> <p>I. (5 pts) past performance in successfully completing and managing the assistance agreements identified in the narrative proposal as described in Section IV.C of the announcement,</p> <p>II. (5 pts) history of meeting the reporting requirements under the assistance agreements identified in the narrative proposal as described in Section IV.C of the announcement including whether the applicant submitted acceptable final technical reports under those agreements and the extent to which the applicant adequately and timely reported on their progress towards achieving the expected outputs and outcomes under those agreements and if such progress was not being made whether the applicant adequately reported why not,</p> <p>III. (5 pts) organizational experience and plan for timely and successfully achieving the objectives of the proposed project,</p> <p>IV. (5 pts) staff expertise and qualifications, staff knowledge, and resources or the ability to obtain them, to successfully achieve the goals of the proposed project.</p> <p>Note: In evaluating applicants under items I. and II. of this criterion, the Agency will consider the information provided by the applicant and may also consider relevant information from other sources including agency files and prior/current grantors (e.g., to verify and/or supplement the information supplied by the applicant). If you do not have any relevant or available past performance or reporting information, please indicate this in the proposal and you will receive a neutral score for these sub-factors (For items I. and II. above, a neutral score is half of the total points available in a subset of possible points.) If you do not provide any response for these items, you may receive a score of 0 for these factors.</p>	<p>20</p>

<p>4. Cost leveraging: Under this criterion, applicants will be evaluated based on the extent to which they demonstrate that they will leverage additional funds/resources, beyond the grant funds awarded, to support the proposed project activities and how these funds/resources will be used to contribute to the performance and success of the proposed project. This includes but is not limited to funds and other resources leveraged from businesses, labor organizations, non-profit organizations, education and training providers, and/or federal, state, tribal and local governments, as appropriate. Applicants will also be evaluated based on the amount and type of leveraged resources to be provided, how they will obtain the leveraged resources, the likelihood the leveraging will materialize during grant performance, the strength of the leveraging commitment, and the role the leveraged funds/resources will play to support the proposed project activities.</p>	<p>5</p>
<p>5. Budget: Under this criterion, the Agency will evaluate the proposed project budget on the degree to which the proposed budget,</p> <p>I. (15 pts) is cost-effective, considering the following factors: organizational overhead (indirect costs), travel costs, and ability to perform duties within the operational range of budgets provided by the program,</p> <p>II. (5 pts) provides a detailed breakout of the approximate funding used for each major activity.</p> <p>An applicant’s budget and budget narrative must account for both federal funds and any non-federal funds (e.g., any required or voluntary cost share/match if applicable). Applicants must precisely describe in their budget narrative how they will account for any required or voluntary cost share/match and what role EPA funding will play in the overall project.</p>	<p>20</p>
<p>6. Expenditure of Awarded Grant Funds: Under this criterion, applicants will be evaluated based on their approach, procedures, and controls for ensuring that awarded grant funds will be expended in a timely and efficient manner.</p>	<p>10</p>
<p>7. On-site Collaboration: Under this criterion, the Agency will evaluate the applicant’s plan and approach for ensuring that students in the program will be able to spend extended periods of time performing research and analysis on-site at the NVFEL in Ann Arbor, MI in order to successfully achieve the objectives of this announcement as described in Section I.</p>	<p>20</p>

B. Review and Selection Process

Applications will first be evaluated against the threshold factors listed in Section III. Only those applications which meet all of the threshold factors will be evaluated using the evaluation criteria listed above by an EPA evaluation team. Each application will be given a numerical score and will be rank-ordered according to the numerical score. Preliminary funding recommendations will be provided to the Selection Official based on this ranking.

C. Other Factors

Final funding decisions will be made by the Selection Official based on the rankings and preliminary recommendations of the EPA evaluation team. In making the final funding decisions, the Selection Official may also consider programmatic priorities. Once final decisions have been made, a funding recommendation will be developed and forwarded to the EPA Award Official.

VI. AWARD ADMINISTRATION INFORMATION

A. Award Notices

Following evaluation of applications, all applicants will be notified regarding their status.

Application Notifications

1. The EPA anticipates notification to successful applicants will be made via telephone or electronic or postal mail. The notification will be sent to the original signer of the application or the project contact listed in the application. This notification, which informs the applicant that its application has been selected and is being recommended for award, is not an authorization to begin work. The official notification of an award will be made by EPA's Office of Grants and Debarment. Applicants are cautioned that only a grants officer is authorized to bind the Government to the expenditure of funds; selection does not guarantee an award will be made. For example, statutory authorization, funding or other issues discovered during the award process may affect the ability of the EPA to make an award to an applicant. The award notice, signed by an EPA grants officer, is the authorizing document and will be provided through electronic or postal mail. The successful applicant may need to prepare and submit additional documents and forms (e.g., work plan), which must be approved by EPA, before the grant can officially be awarded. The time between notification of selection and award of a grant can take up to 90 days or longer.

2. The EPA anticipates notification to unsuccessful applicant(s) will be made via email or postal mail. The notification will be made to the original signer of the Standard Form (SF) 424, Application for Federal Assistance.

B. Administrative and National Policy Requirement

A listing and description of general EPA Regulations applicable to the award of assistance agreements may be viewed at:

http://www.epa.gov/ogd/AppKit/applicable_epa_regulations_and_description.htm.

Executive Order 12372, Intergovernmental Review of Federal Programs may be applicable to awards, resulting from this announcement. Applicants selected for funding may be required to provide a copy of their application to their [State Point of Contact](#) (SPOC) for review, pursuant to Executive Order 12372, Intergovernmental Review of Federal Programs. This review is not required with the Initial Application and not all states require such a review. A listing of State Point of Contacts (SPOC) may be viewed at: www.whitehouse.gov/omb/grants/spoc.html

C. Reporting Requirement

Quarterly progress reports and a detailed final technical report will be required. Quarterly reports summarizing technical progress, planned activities for next quarter and summary of expenditures are required. The final technical report shall be completed within 90 calendar days of the completion of the period of performance. The final technical report should include: summary of the project or activity, advances achieved and costs of the project or activity. In addition, the final technical report shall discuss the problems, successes, and lessons learned from the project or activity that could help overcome structural, organizational or technical obstacles to implementing a similar project elsewhere. The schedule for submission of quarterly reports will be established by EPA, after award.

D. Disputes

Assistance agreement competition-related disputes will be resolved in accordance with the dispute resolution procedures published in 70 FR (Federal Register) 3629, 3630 (January 26, 2005) which can be found at <http://www.epa.gov/ogd/competition/resolution.htm>. Copies of these procedures may also be requested by contacting the person listed in Section VII of this announcement.

E. Additional Provisions for Applicants Incorporated Into the Solicitation

Additional provisions that apply to this solicitation and/or awards made under this solicitation, including but not limited to those related to DUNS, SAM, copyrights, disputes, and administrative capability, can be found at http://www.epa.gov/ogd/competition/solicitation_provisions.htm. These, and the other provisions that can be found at the website link, are important, and applicants must review them when preparing proposals for this solicitation. If you are unable to access these provisions electronically at the website above, please communicate with the EPA contact listed in this solicitation to obtain the provisions.

VII. AGENCY CONTACTS

For further information, contact:

U.S. EPA, Office of Transportation and Air Quality
Attention: Patty Klavon
2565 Plymouth Road
Ann Arbor, MI 48105
E-mail: klavon.patty@epa.gov

All questions or comments must be communicated in writing via email to the contact person listed above. Questions and answers will be posted until the closing date of this announcement at the OAR Grants/Funding webpage:

http://www.epa.gov/air/grants_funding.html .

VIII. Other Information (Appendices)

Appendix A. Grants.gov Submission Instructions

Grants.gov Application Instructions

The electronic submission of your application must be made by an official representative of your institution who is registered with Grants.gov and is authorized to sign applications for Federal assistance. For more information on the registration requirements that must be completed in order to submit an application through grants.gov, go to <http://www.grants.gov> and click on “Applicants” on the top of the page and then go to the “Get Registered” link on the page. If your organization is not currently registered with Grants.gov, please encourage your office to designate an Authorized Organization Representative (AOR) and ask that individual to begin the registration process as soon as possible. Please note that the registration process also requires that your organization have a DUNS number and a current registration with the System for Award Management (SAM) and the process of obtaining both could take a month or more. Applicants must ensure that all registration requirements are met in order to apply for this opportunity through grants.gov and should ensure that all such requirements have been met well in advance of the submission deadline. Registration on grants.gov, SAM.gov, and DUNS number assignment is FREE.

To begin the application process under this grant announcement, go to <http://www.grants.gov> and click on “Applicants” on the top of the page and then “Apply for Grants” from the drop down menu and then follow the instructions accordingly. Please note: To apply through grants.gov you must use Adobe Reader software and download the compatible Adobe Reader version. For more information about Adobe Reader, to verify compatibility, or to download the free software, please visit <http://www.grants.gov/web/grants/support/technical-support/software/adobe-reader->

[compatibility.html](#)

You may also be able to access the application package for this announcement by searching for the opportunity on <http://www.grants.gov>. Go to <http://www.grants.gov> and then click on “Search Grants” at the top of the page and enter the Funding Opportunity Number, **EPA-OAR-OTAQ-15-02**, or CFDA 66.037, in the appropriate field and click the Search button. Alternatively, you may be able to access the application package by clicking on the Application Package button at the top right of the synopsis page for the announcement on <http://www.grants.gov>. To find the synopsis page, go to <http://www.grants.gov> and click “Browse Agencies” in the middle of the page and then go to “Environmental Protection Agency” to find the EPA funding opportunities.

Application Submission Deadline: Your organization’s AOR must submit your complete application package electronically to EPA through Grants.gov (<http://www.grants.gov>) no later than **January 23, 2015, 4:00 p.m. EST.**

Please submit *all* of the application materials described below using the grants.gov application package that you downloaded using the instructions above. For additional instructions on completing and submitting the electronic application package, click on the “Show Instructions” tab that is accessible within the application package itself.

Application Materials

The following forms and documents are required under this announcement:

Mandatory Documents:

1. Application for Federal Assistance (SF-424)
2. Budget Information for Non-Construction Programs (SF-424A)
3. Assurances for Non-Construction Programs (SF-424B)
4. Grants.gov Lobbying Form
5. EPA Key Contacts Form 5700-54
6. EPA Form 4700-4 – Pre-award Compliance Review Report
7. Narrative Proposal (Project Narrative Attachment Form)-prepared as described in Section IV.C of the announcement

Optional Documents:

1. Other Attachment form - biographical Sketch. Provide resumes or curriculum vitae for all principal investigators and any other key personnel.
2. Other Attachments form - Negotiated Indirect Cost Rate Agreement.
3. Other Attachments form - Quality Assurance Narrative Statement.
4. Other Attachments form - Support Letters - These should indicate how the supporting organization will assist in the project.

If problems are encountered during the submission process, the AOR should reboot his/her computer before trying to submit the application package again. [It may be necessary to turn off the computer (not just restart it) before attempting to submit the package again.] If the AOR continues to experience submission problems, he/she may contact Grants.gov for assistance by phone at 1-800-518-4726 or email at <http://www.grants.gov/help/help.jsp> or contact klavon.patty@epa.gov.

Applications submitted through grants.gov will be time and date stamped electronically.

If you have not received a confirmation of receipt from EPA (not from grants.gov) within 30 days of the application deadline, please contact Patty Klavon at (734) 214-4476. Failure to do so may result in your application not being reviewed.

Appendix B. Budget Sample

Budget Detail

This section of the work plan is a detailed description of the budget found in the SF-424A, and must include a detailed discussion of how EPA funds will be used. Applicants must **itemize** costs related to personnel, fringe benefits, travel, equipment, supplies, contractual costs, other direct costs, indirect costs, and total costs.

Applicants should use the following instructions, budget object class descriptions, and example table to complete the Budget Detail section of the work plan.

- **Personnel - List all staff positions by title. Give annual salary, percentage of time assigned to the project, and total cost for the budget period.** This category includes only direct costs for the salaries of those individuals who will perform work directly for the project (generally, paid employees of the applicant organization). If the applicant organization is including staff time (in-kind services) as a cost share, this should be included as Personnel costs. Personnel costs do not include: (1) costs for services of consultants, contractors, consortia members, or other partner organizations, which are included in the “Contractual” category; (2) costs for employees of sub-recipients under sub-awards, which are included in the “Other” category; or (3) effort that is not directly in support of the proposed project, which may be covered by the organization’s negotiated indirect cost rate. The budget detail must identify the personnel category type by Full Time Equivalent (FTE), including percentage of FTE for part-time employees, number of personnel proposed for each category, and the estimated funding amounts.
- **Fringe Benefits - Identify the percentage used, the basis for its computation, and the types of benefits included.** Fringe benefits are allowances and services provided by employers to their employees as compensation in addition to regular salaries and wages. Fringe benefits include, but are not limited to the cost of leave, employee insurance, pensions and unemployment benefit plans.

- **Travel - Specify the mileage, per diem, estimated number of trips in-State and out-of-State, number of travelers, and other costs for each type of travel.** Travel may be integral to the purpose of the proposed project (e.g. inspections) or related to proposed project activities (e.g. attendance at meetings). Travel costs do not include: (1) costs for travel of consultants, contractors, consortia members, or other partner organizations, which are included in the “Contractual” category; (2) travel costs for employees of sub-recipients under sub-awards, which are included in the “Other” category.
- **Equipment - Identify each item to be purchased which has an estimated acquisition cost of \$5,000 or more per unit and a useful life of more than one year.** Equipment also includes accessories necessary to make the equipment operational. Equipment does not include: (1) equipment planned to be leased/rented, including lease/purchase agreement; or (2) equipment service or maintenance contracts. These types of proposed costs should be included in the “Other” category. Items with a unit cost of less than \$5,000 should be categorized as supplies, pursuant to 40 CFR 31.3 and 30.2. The budget detail must include an itemized listing of all equipment proposed under the project.
- **Supplies - “Supplies” means all tangible personal property other than “equipment”.** The budget detail should identify categories of supplies to be procured (e.g., laboratory supplies or office supplies). Non-tangible goods and services associated with supplies, such as printing service, photocopy services, and rental costs should be included in the “Other” category.
- **Contractual - Identify each proposed contract and specify its purpose and estimated cost.** Contractual/consultant services are those services to be carried out by an individual or organization, other than the applicant, in the form of a procurement relationship. Leased or rented goods (equipment or supplies) should be included in the “Other” category. The applicant should list the proposed contract activities along with a brief description of the scope of work or services to be provided, proposed duration, and proposed procurement method (competitive or non-competitive), if known.
- **Other - List each item in sufficient detail for EPA to determine the reasonableness and allowability of its cost.** This category should include only those types of direct costs that do not fit in any of the other budget categories. Examples of costs that may be in this category are: insurance, rental/lease of equipment or supplies, equipment service or maintenance contracts, printing or photocopying, rebates, and sub-award costs. Sub-awards (e.g., sub-grants) are a distinct type of cost under this category. The term “sub-award” means an award of financial assistance (money or property) by any legal agreement made by the recipient to an eligible sub-recipient. This term does not include procurement purchases, technical assistance in the form of services instead of money, or other assistance in the form of revenue sharing, loans, loan guarantees, interest subsidies, insurance, or direct appropriations.

Subcontracts are not sub-awards and belong in the contractual category. Applicants must provide the aggregate amount they propose to issue as sub-award work and a description of the types of activities to be supported.

- **Indirect Charges - If indirect charges are budgeted, indicate the approved rate and base.** Indirect costs are those incurred by the grantee for a common or joint purpose that benefit more than one cost objective or project, and are not readily assignable to specific cost objectives or projects as a direct cost. In order for indirect costs to be allowable, the applicant must have a federal or state negotiated indirect cost rate (e.g., fixed, predetermined, final or provisional), or must have submitted a proposal to the cognizant Federal or State agency. Examples of Indirect Cost Rate calculations are shown below:
 - Personnel (Indirect Rate x Personnel = Indirect Costs)
 - Personnel and Fringe (Indirect Rate x Personnel & Fringe = Indirect Costs)
 - Total Direct Costs (Indirect Rate x Total direct costs = Indirect Costs)
 - Direct Costs minus distorting or other factors such as contracts and equipment (Indirect Rate x (total direct cost – distorting factors) = Indirect Costs)

Example Budget Table

	EPA Funding	**Cost-Share
Personnel		
(1) Project Manager @ \$40/hr x 10 hrs/week x 52 wks		\$20,800
(3) Project Staff @ \$25/hr x 40 hrs/week x 40 wks	\$120,000	
TOTAL PERSONNEL	\$120,000	\$20,800
Fringe Benefits		
20% of Salary and Wages	20%(120,000)	20%(20,800)
- Retirement, Health Benefits, FICA, SUI	\$24,000	\$4,160
TOTAL FRINGE BENEFITS	\$24,000	\$4,160
Travel		
Travel for Project Manager and staff: 500 mi/mo @ \$0.55/mi x 12 mos.	\$3,300	
TOTAL TRAVEL	\$3,300	
Equipment		
TOTAL EQUIPMENT	0	
Supplies		
Office and related supplies to support training	\$10,000	
TOTAL SUPPLIES	\$10,000	
Contractual		

Support Services Contract	\$20,000	
TOTAL CONTRACTUAL	\$20,000	
Other		
TOTAL OTHER	\$0	
Indirect Charges		
Federal Negotiated Indirect Cost Rate = 10% (Indirect Rate x Personnel = Indirect Costs)	\$12,000	
TOTAL INDIRECT	\$12,000	
TOTAL FUNDING	(fed) \$189,300	(non-fed) \$24,960
TOTAL PROJECT COST (federal and non-federal)	\$214,260	

** Cost-Share funds, while not required under this RFA, must also be included on the SF-424A as listed in Section III.B of this RFA.

Note on Management Fees: When formulating budgets for proposals, applicants must not include management fees or similar charges in excess of the direct costs and indirect costs at the rate approved by the applicant's cognizant Federal audit agency, or at the rate provided for by the terms of the agreement negotiated with EPA. The term "management fees or similar charges" refers to expenses added to the direct costs in order to accumulate and reserve funds for ongoing business expenses, unforeseen liabilities, or for other similar costs that are not allowable under EPA assistance agreements. Management fees or similar charges cannot be used to improve or expand the project funded under this agreement, except to the extent authorized as a direct cost of carrying out the work plan.