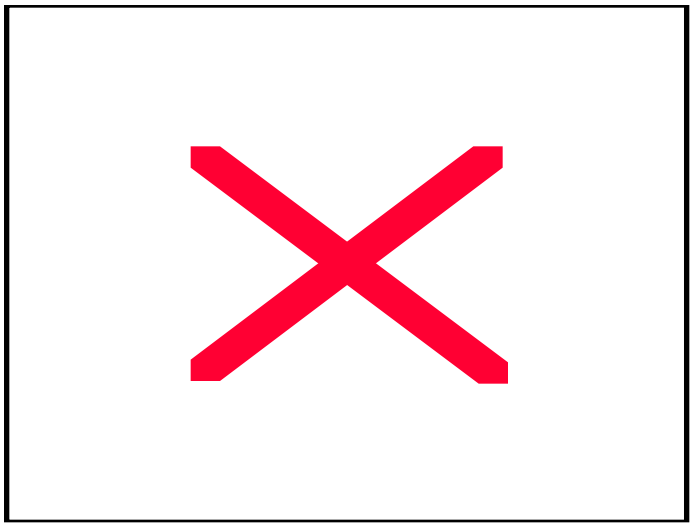
STEWARDSHIP SCIENCE ACADEMIC ALLIANCES PROGRAM

SOLICITATION NUMBER DE-PS03-01SF22349



SOLICITATION FOR FINANCIAL ASSISTANCE APPLICATIONS

Issuing Office: U.S. Department of Energy
Oakland Operations Office
1301 Clay Street, N-700
Oakland, CA 94612-5208

Date Issued: November 30, 2001

Pre-Applications Due: 1/11/02
Applications Due: 4/1/02

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This Solicitation and any Amendments are available via the internet at http://e-center.doe.gov.

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I. INTRODUCTION

A. Stockpile Stewardship Program Overview

The Stockpile Stewardship Program (SSP) is based on a leading-edge scientific approach to ensure the safety, reliability, and performance of the nuclear stockpile in the absence of nuclear testing. The stewardship mission stresses increased fundamental understanding of physical phenomena associated with stockpile performance, safety, and reliability, as well as the preservation and enhancement of core science and technology competencies within the National Nuclear Security Administration/Defense Programs (NNSA/DP) complex. The NNSA/DP Office of Research, Development and Simulation (NA-11) is responsible for developing, maintaining, and integrating all technical and scientific capabilities necessary to execute the Stockpile Stewardship Program. Research activities supporting the SSP are conducted primarily at the three NNSA/DP laboratories: the Lawrence Livermore National Laboratory (LLNL), the Los Alamos National Laboratory (LANL), and the Sandia National Laboratories (SNL) and at several other NNSA-supported organizations: the Nevada Test Site (NTS), the Naval Research Laboratory (NRL), the University of Rochester Laboratory for Laser Energetics (UR/LLE), and General Atomics, Inc.

B. Stewardship Science Academic Alliances Program Objectives

The objectives of the Stewardship Science Academic Alliances Program are to:

1. Grow the U.S. scientific community, through the funding of research projects at universities, in areas of fundamental science and technology relevant to stockpile stewardship, with a focus on those areas that have not been traditionally supported by other federal agencies and for which there is a recruiting need within the NNSA/DP laboratories complex;
2. Provide fundamental-science information and develop advanced experimental measurement techniques in selected areas of physical sciences: condensed matter physics and materials science, hydrodynamics, plasma and high-energy-density physics, fluid dynamics, and low-energy nuclear science;
3. Train scientists in specific areas of research relevant to stockpile stewardship;
4. Promote and sustain scientific interactions between the academic community and scientists at the NNSA/DP laboratories through exchange of personnel;
5. Increase the availability of unique experimental facilities sited at the NNSA/DP laboratories to the academic community, particularly for collaborations in areas of relevance to stockpile stewardship;

6. Develop and maintain a long-term recruiting pipeline to the NNSA/DP laboratories by increasing the visibility of the NNSA/DP scientific activities to the U.S. faculty and student communities; and
7. Complement the current NNSA/DP Accelerated Strategic Computing Initiative (ASCI) Academic Strategic Alliances Program (ASAP) supporting the Strategic Alliance Centers of Excellence by emphasizing primarily *experimental* research in forefront scientific areas aligned with the NNSA/DP mission needs.

The Stewardship Science Academic Alliances Program is an expansion of the currently funded "Inertial Fusion Science in Support of Stockpile Stewardship" Grant Program. It is sponsored by the Office of Research, Development and Simulation in the U.S. Department of Energy (DOE), NNSA/DP. The Office of Research, Development and Simulation anticipates supporting multiple awards in Physical Sciences totaling approximately $12.5M annually, subject to the availability of funds, as a result of this solicitation. Projects will be reviewed for progress at the end of each year. They will be renewed contingent on assessed progress and availability of funds. Awards will be for one- to three-year projects of work at a funding level appropriate for the proposed scopes. Consideration will be given to a broad spectrum of proposed programs, ranging from Research Grants (typically single-investigator projects) to comprehensive Centers of Excellence. Any financial assistance awarded as a result of this solicitation shall be contingent upon the availability of appropriated funds. No legal liability on the part of the government for the payment of any money shall arise unless and until appropriated funds are made available to the contracting officer for these awards.

Funding of awards will range up to approximately $2,000,000 per year for Centers of Excellence and will range up to a few hundred thousand dollars per year for Research Grants. Selected Centers of Excellence will be managed under a Cooperative Agreement, while all other selected projects will be managed as Research Grants (see Section V.F "Award Instrument and Program Management").

C. Technical Scope and Research Areas

Under the Stewardship Science Academic Alliances Program, the NNSA will consider applications for university-based research in the field of physical sciences that are relevant to stockpile stewardship and which fall within the areas of research supported by the NNSA/DP Office of Research, Development and Simulation. All work funded through this program is to be unclassified.

Physical Sciences:

Research proposals are solicited in the following areas of physical sciences. As a complement to the ASCI ASAP program, favorable consideration will be given to proposals that emphasize experimental efforts, although outstanding theoretical projects will be considered as well. Proposals covering the following areas of physical sciences will be considered either as Research Grants, not exceeding a few hundred thousand dollars per year for a single award, for discipline-focused investigations; or Cooperative Agreements, not exceeding approximately $2,000,000 per year for a single award, for comprehensive, multi-disciplinary Centers of Excellence (see Section V.F "Award Instrument and Program Management").

1. — Properties of Materials under Extreme Conditions and Hydrodynamics

Research proposals are solicited in the area of fundamental properties and response of materials under extreme conditions and hydrodynamics. The specific sub-areas of interest are:

a. Investigations of the static and dynamic (i.e., shock-compressed) properties of materials under conditions of high-pressure, high-temperature (1–10 eV regime), high-strain and high-strain-rate. Materials properties of interest include thermodynamic properties (equation-of-state, high-pressure phase diagram, pressure-induced phase transformation, etc.) and mechanical constitutive properties (plasticity and strength, failure, fracture, etc.);
b. Hydrodynamic experiments in low-energy-density physics regimes where materials properties (strength, etc.) dominate;
c. Development of advanced diagnostics and measurement techniques leading to (1) the observation of physical phenomena at various length and time scales and (2) development and experimental validation of physics-based multi-scale models of the dynamic response of materials.

2. — High-Energy-Density Physics and Fluid Dynamics

Research proposals are solicited in the area of high-energy-density physics and fluid dynamics, with favorable considerations given to experimental investigations based on the utilization of lasers and/or pulsed power technology. The specific sub-areas of interest are:

a. Investigation of the properties of matter in high-energy-density regimes, e.g. as produced by lasers and/or pulsed power. This includes investigations in related areas of hydrodynamics, plasma physics, properties of materials under high-energy-density conditions, inertial fusion, atomic physics, radiation generation, and the interaction of radiation with matter;
b. Physics of turbulence and fluid interfaces.

3. — Low-Energy Nuclear Science

Research proposals are solicited in the area of nuclear science with an emphasis on low energies. The specific sub-areas of interest are:

a. Investigations leading to greater accuracy in the knowledge of low energy cross sections of stable and unstable nuclei and corresponding reaction rates for neutron-, γ- and ion-induced reactions for both simulation and radiochemistry diagnosis;
b. Development of advanced simulations and measurement techniques leading to improved radiation and particle detection methods, in terms of energy and spatial resolution;
c. Physics of the fission process, including division of mass and charge as a function of excitation, production of energy, and the reaction properties of prompt fission products;
d. Investigations of particle production and advanced diagnostic techniques relevant to high-energy proton radiography;
e. Development of experimental diagnostic techniques for laser or pulsed power implosion systems.

D. Use of Experimental Facilities

For Applicants who propose investigations in the Physical Sciences area requiring the use of facilities at any of the NNSA/DP laboratories, the Applicant must make arrangements with the specific laboratory. Examples of experimental facilities within the NNSA/DP laboratory complex include the Los Alamos Neutron Science Center (LANSCE) and the National High Magnetic Field Laboratory at LANL, the *Z*-accelerator and the Saturn facility at SNL, the Positron Research Facility at LLNL, various high-pressure, shock physics and laser facilities within the DP complex, the Atlas pulsed-power facility at LANL/NTS, the National Ignition Facility (NIF) at LLNL, the Omega laser facility at the University of Rochester, etc. Potential applicants are responsible for contacting the appropriate laboratory directly to discuss any facility-related activities and utilization, including beam-time availability, shot schedule, etc. A letter from either the facility manager or program manager indicating 1) the level of communication between the Principal Investigator (PI) and facility management, 2) the feasibility of the proposed use of the facility, and 3) arrangements pursued regarding facility availability for this project must be included with the Application. Applicants must acknowledge, accept and comply with all environmental, safety and health rules and regulations in place at any of these laboratories when university personnel are working at these sites. In addition, Applicants may propose the use of national (or international) user facilities, such as synchrotron-radiation light sources, neutron sources, etc., by requesting user access to these facilities through the respective program review procedures. If the use of such a facility is critical to the success of the proposed project, the Application shall include a description of the status of the user access request and any available information supporting the likelihood of the requested access being granted. A description of national scientific user facilities supported by the DOE Office of Basic Energy Sciences can be found at:
http://www.er.doe.gov/production/bes/BESfacilities.htm.

In addition to the above experimental facilities, applicants may incorporate the utilization of

remaining components from the LLNL Nova Laser into their proposals. If the requested components are critical to the success of the proposed effort, applications shall identify the components requested. Applicants interested in obtaining Nova laser components should contact: Scott Samuelson, Oakland Operations Office, 925-423-0593 for further details.

II. PRE-APPLICATION

Potential Applicants are **required** to submit a Pre-application not exceeding five (5) pages of narrative, excluding cover-page information, describing the research objectives and technical methods and approaches (see Section V.D. – Submission of Pre-applications and Applications). Pre-applications must be received by 5:00 pm EST on 1/11/02. Pre-applications received after the above solicitation closing date will be rejected from consideration (see Section V.D. – Late Receipt of Pre-applications and Applications). The purpose of the Pre-application is to permit an initial evaluation of the proposals in terms of responsiveness to the technical scope of the solicitation. The NNSA will respond with a letter informing the Applicant whether or not the proposed work is responsive to the solicitation. The Pre-application evaluation does not replace the final review of Applications.

A. Content of Pre-Application

The Pre-application should include cover-page information plus a brief project description not exceeding five (5) pages in the following format: font no smaller than 10 point Century Schoolbook, with at least _" margins all around.

Cover-page information (one page):

1. Statement that the document is a Pre-application.
2. Principal Investigator name, telephone number, fax number, and e-mail address. The Principal Investigator for a **new** proposal shall be a member of the teaching/research faculty of a U.S. university or academic institution (Adjunct Professors, Visiting Professors and Post-Doctoral Fellows are ineligible to be Principal Investigators).
3. Name and address of Principal Investigator's academic institution (Applicant).
4. Title of the project.
5. The DOE Grant identification number for projects currently funded under the "Inertial Fusion Science in Support of Stockpile Stewardship" Grant Program.
6. Specific area(s) of the technical scope of this solicitation relevant to the proposed project using the nomenclature indicated in Section I.C. (to be used in the evaluation/review process).
7. Indication whether the proposed technical activities described in the Pre-application are to be considered as a Center of Excellence for a Cooperative Agreement or a project for a Research Grant.

The project description must include the following information (five pages maximum):

1. Description of the proposed research.
2. Explanation of its importance to the relevant areas of technical scope and overall scientific vitality.
3. Explanation of the proposed scientific approach and the equipment needed, including experimental facility use at NNSA/DP laboratories and/or national user facilities, as appropriate.
4. Description of the mechanisms of interaction with personnel at the NNSA/DP laboratories.
5. Anticipated results of the proposed research.
6. Project schedule and milestones, including key milestones at the end of each year, and an estimated completion date.
7. The estimated yearly (based on a twelve month interval, not on a fiscal or calendar year basis) and total budgetary cost information for the duration of the project. Budgetary cost information should be a reasonable estimate for the proposed scope of the research.

B. Review of Pre-Applications and Evaluation Criteria

All Pre-applications will be reviewed by technical experts who are knowledgeable in the scientific research areas indicated in Section I.C. of this Solicitation for Financial Assistance. No Pre-application will be eliminated on the basis of the technical review.

Criteria to evaluate the Pre-applications follow:

1. Alignment with the area(s) of technical scope defined in section I.C.
2. Expected impact on the area(s) of technical scope addressed.
3. Consistency with the objective of this academic alliances program to focus on advanced experimental investigations.

C. Response by the Program Office

The NNSA will respond with a letter informing the Applicant whether or not the proposed work is responsive to the solicitation. This response will indicate the suitability of the proposed research with regard to the objectives of the Stewardship Science Academic Alliances Program and the eligibility of the proposing organization. Although no Pre-application will be eliminated on the basis of the technical review, the response by the program office will provide enough information for the Applicant to evaluate the suitability of the proposed research prior to submitting a complete, formal Application.

III. APPLICATION

Applications must be received by 5:00 pm EST on April 1, 2002 per Section V.D. Applications received after the above solicitation closing date will be rejected from consideration (see Section V.D. – Late Receipt of Pre-applications and Applications). Applications will not be returned to the Applicants. As described in Section II (Pre-application) the Pre-application process is required. No application will be accepted unless a Pre-application was submitted by the required date described in Section II.

The Application must contain the following information:

A. Cover Page

1. Statement that the document is an Application.
2. Principal Investigator name, telephone number, fax number, and e-mail address. The Principal Investigator for a **new** proposal shall be a member of the teaching/research faculty of a U.S. university or academic institution (Adjunct Professors, Visiting Professors and Post-Doctoral

Fellows are ineligible to be Principal Investigators).
3. Name and address of Principal Investigator's academic institution (Applicant).
4. Title of the project.
5. The DOE Grant identification number for projects currently funded under the "Inertial Fusion Science in Support of Stockpile Stewardship" Grant Program.
6. Specific area(s) of the technical scope of this solicitation relevant to the proposed project using the nomenclature indicated in Section I.C. (to be used in the evaluation/review process).
7. Indication whether the proposed technical activities described in the Application are to be considered as a Center of Excellence for a Cooperative Agreement or a project for a Research Grant.

B. Administrative and Cost Section

1. Application for Federal Assistance (Form 424).
2. Yearly budget information with written justification for each budget item, especially items of equipment (Standard Form SF424A).
3. Assurances of Compliance (Form DOE 1600.5).
4. Certifications regarding: lobbying, debarment, suspension and other responsibility matters, and drug-free workplace requirements (FA-CERTS).
5. Environmental Checklist - See Section V.Q.
6. Statement of current and pending support.
7. List of foreign nationals planned to be supported by this effort at the time of submission.
8. Signature of the individual authorized to ensure the commitment of the Applicant organization as described in Section V.B. of this document.

C. Technical Section

Note: The technical section of the application may not exceed 20 pages for a Research Grant, or 30 pages for a Center of Excellence. The following format is to be used: font no smaller than 10 point Century Schoolbook, with at least _" margins all around. If a letter is required for item 7 below (described in Section I.D), attach it as an appendix and do not include it in the page count. No other attachments to the Application are permitted.

1. Abstract (300 words or less).
2. Statement of work containing brief description of technical approach and tasks, and direct statements of actions that the Applicant will take to perform the proposed work.
3. Detailed description of proposed work including its objective(s), its relationship and significance to the relevant area(s) of the technical scope of this solicitation (Section I.C) and the Applicant's technical approach for executing the proposed work.
4. For projects currently receiving funding under this program, the quality and scientific impact

of recent results and accomplishments.
5. Description of the mechanisms for interaction with the NNSA/DP laboratories, including plans for personnel exchange.
6. Background and experience of the Principal Investigator and other research personnel to be assigned to the project. This information should be provided in the form of a curriculum vitae for each PI and co-PI, not exceeding two (2) pages and including references to the five (5) most relevant publications.
7. Description of facilities and resources of Applicant, including any work to be performed at NNSA/DP experimental facilities and/or other national user facilities, and arrangements pursued. For NNSA/DP experimental facilities a letter is required as described in Section I.D.
8. Bibliography of literature.

IV. APPLICATION REVIEW AND AWARD

All Applications will be subjected to an administrative review, and to a scientific/technical merit review.

A. Review of Application and Evaluation Criteria

All Applications will be subjected to an administrative review for completeness of documentation, and to a scientific/technical merit review for technical content evaluation.

The scientific/technical review will include an evaluation of whether or not Applications are within the technical scope of the academic alliances program (Section I.C.) and will also include a technical peer review.

The evaluation criteria used in the review process to evaluate the Applications in the scientific/technical merit review are listed below, in order of importance.

1. Alignment with the areas of technical scope defined in section I.C.
2. Scientific/technical merit of the project, including innovativeness and originality.
3. Expected impact on the area of technical scope addressed.
4. Consistency with the objective of this academic alliances program to focus on advanced experimental investigations.
5. Qualifications of the Applicant's personnel and adequacy of proposed resources.
6. Feasibility of plans for carrying out the proposed research, considering such factors as: appropriateness of the technical method and approach, facility compatibility, other commitments, competition and timing.

7. For projects currently receiving funding under this program, the quality and scientific impact of recent results and accomplishments.
8. Level of interaction with NNSA/DP laboratory personnel and the potential to train students in scientific areas defined by the technical scope in order to build a long-term recruiting pool for the NNSA/DP laboratory complex. Generally, a higher degree of interaction both quantitatively and qualitatively is considered desirable.
9. Leverage provided by cost sharing with other funding sources.

As part of the review process, a team of DOE and external reviewers may conduct site visits for Applications describing a Center of Excellence.

The final determination of the successful Applications is the responsibility of the Source Selection Official.

B. Notice to Applicants

Following the completion of the selection process, Applicants will be notified with regard to the decision on their Application. It is anticipated that selection decisions will be made by August 2002, and some grants will be awarded by September 2002. Unsuccessful Applications will not be returned to the Applicant, but will be retained by NNSA for a period of one year.

V. APPENDIX: GENERAL INFORMATION

A. Solicitation Definitions

"Applicant" as applied to 1) new Research Grant proposals under this solicitation means the U.S. university or academic institution committed to the execution of the project under the direction of its Principal Investigator, 2) new Center of Excellence proposals under this solicitation means either (a) the lead U.S. university or academic institution of the proposed Center committed to the execution of the project under the direction of a Center Director or Principal Investigator or (b) the consortium or other business entity made up of U.S. universities and/or academic institutions proposing the Center of Excellence, 3) projects proposed for renewal under this solicitation means the institution committed to the execution of this project under the direction of the Principal Investigator.

"**Application**" means the documentation submitted in response to this solicitation.

"**Award**" means the written documentation executed by a NNSA Contracting Officer, after an Applicant is selected, which contains the terms and conditions for providing financial assistance to the Applicant(s).

"**Budget**" means the cost expenditure plan submitted in the Application, including both the NNSA contribution and that provided by the Applicant institution(s).

"**Budget Period**" means an interval of time, specified in the award, into which a project is divided for budgeting and funding purposes.

"**Center of Excellence**" means a multi-disciplinary, multi-investigator effort focused on a topical research area and whose technical components are integrated into a scientifically world-class and unique capability.

"**Contracting Officer**" means the NNSA official authorized to execute awards on behalf of NNSA and who is responsible for the business management and non-program aspects of the financial assistance process.

"**Cooperative Agreement**" means a financial assistance instrument used by NNSA to transfer money or property when the principle purpose of the transaction is to accomplish a public purpose of support or stimulation authorized by Federal Statute, and substantial involvement is anticipated between NNSA and the Applicant during the performance of the contemplated activity.

"**Cost Sharing**" means the respective share of total project costs required to be contributed by the Applicant institution(s) and by NNSA. The required percentage of Applicant(s) cost share is to be applied to the total project cost (i.e., the sum of Applicant plus NNSA cost shares) rather than to the NNSA contribution alone.

"**Financial Assistance**" means the transfer of money or property to a recipient or sub-recipient to accomplish a public purpose of support authorized by Federal Statute through Research Grants or Cooperative Agreements and Sub-awards. In NNSA, it does not include direct loans, loan guarantees, price guarantees, purchase agreements, Cooperative Research and Development Agreements (CRADAs), or any other type of financial incentive instrument.

"**Key Personnel**" means the individuals who will have significant roles in planning and implementation of the proposed project.

"**Project**" means the set of activities described in an Application, State plan, or other document that is approved by NNSA for financial assistance (whether such financial assistance represents all or only a portion of the support necessary to carry out those activities.

"**Project Period**" means the total period of time indicated in an award during which NNSA expects to provide support contingent upon satisfactory progress and available funds. A Project Period may consist of one or more Budget Periods and may be extended by NNSA.

"**Principal Investigator**" as applied to **new** proposals under this solicitation means any member of the teaching/research faculty of a U.S. university or academic institution (Adjunct Professors, Visiting Professors and Post-Doctoral Fellows are ineligible to be Principal Investigators). This term refers to the single individual responsible for the management of the proposal/project.

"Recipient" or "Grantee" means the entity that receives an award from NNSA and is financially accountable for the use of any NNSA funds provided for the performance of the project, and is legally responsible for carrying out the terms and conditions of the award.

"Research Grant" means a financial assistance instrument used by NNSA to transfer money or property for research work when the principle purpose of the research is to accomplish a public purpose of support or stimulation authorized by Federal Statute, and no substantial involvement is anticipated between NNSA and the Applicant during the performance of the contemplated activity.

"Sub-award" means an award of Financial Assistance by a recipient to an eligible sub-recipient. The term may include a contract under a financial assistance award.

"**Solicitation**" means a document which requests the submission of Applications for support and which describes the objectives, Applicant and project eligibility requirements, desired performance activity, evaluation criteria, Award terms and conditions, and other relevant information about the opportunity.

"**Substantial Involvement**" means involvement on the part of the government that includes direction which the Applicant(s) is required to follow. Such involvement will be negotiated with each Applicant prior to signing any agreement.

"**Total Project Cost**" means all the funds required to complete the effort proposed by the Applicant(s), including NNSA funds plus all other funds that will be committed by the Applicant(s) as cost sharing.

B. Eligibility Requirements

This solicitation invites Applications for **new** proposals from Applicants through Principal Investigators who are members of the teaching/research faculty of a U.S. university or academic institution (Adjunct Professors, Visiting Professors and Post-Doctoral Fellows are ineligible to be Principal Investigators). Non-U.S. citizens at the U.S. institutions described above are eligible to be Principal Investigators. Investigators at foreign institutions may not be Principal Investigators, but may receive funding under a Sub-award. NNSA must be notified of any foreign nationals supported by the funded work, and there may be some restrictions on their participation at certain facilities and conferences. NNSA/DP laboratories are not eligible to receive any funding associated with this solicitation.

Applications for recompetition of projects currently funded under the "Inertial Fusion Science in Support of Stockpile Stewardship" grant program will be accepted only from the Principal Investigator of such a project, who need not be a member of a university or academic institution but who has the commitment of their institution for the execution of the work.

Applications must be signed by the Principal Investigator of the Applicant institution, and by an individual who is authorized to commit the Applicant organization and must commit the Applicant to comply with the terms and conditions of the grant, if awarded. (Principal Investigators are not generally authorized to act for their institutions.)

Recipients and sub-recipients of NNSA financial assistance shall comply with the applicable requirements of 10 CFR Part 600, Federal Statutes, the OMB Circulars, and other Government-wide guidance implementing 10 CFR Part 600; and the requirements identified in Appendix A of 10 CFR Part 600.

C. Amendments to the Solicitation

Amendments shall only be placed on the Industry Interactive Procurement System (IIPS) Home Page at http://e-center.doe.gov. Hard copies will not be mailed. Only those parties officially registered with the Industry Interactive Procurement System (IIPS) system (see section V.D.) will receive e-mail notices that Amendments, if any, to this solicitation, have been posted on the Home Page. NNSA reserves the right to extend the closing date for Pre-applications and Applications, if necessary.

D. Submission of Pre-applications and Applications

Pre-applications and Applications must be submitted electronically via the Industry Interactive Procurement System.

Electronic Submission:

Individuals who have the authority to enter their institution into a legally binding contract/agreement and intend to submit proposals/Applications via the IIPS System must register and receive confirmation that they are registered prior to being able to submit a Pre-application or an Application on the IIPS System. Once an applicant is registered with IIPS, a signature on the IIPS is the typed name on the application in Block 18 of the SF 424.

Pre-applications and Applications must be submitted as an Adobe PDF file via the IIPS in accordance with the instructions outlined in this solicitation and the IIPS User Guide. The Guide can be obtained by going to the IIPS Homepage at http://e-center.doe.gov and then clicking on the "Help" button. Questions regarding the operation of IIPS may be e-mailed to the IIPS Help Desk at IIPSHelpDesk@e-center.doe.gov or call the Help Desk at (800) 683-0751.

Late Receipt of Pre-applications and Applications:

Any Pre-application or Application received after the date and time indicated in this Solicitation will be considered a late submission and not eligible for consideration.

E. Questions

Frequently asked questions and their associated answers will be posted on the IIPS website at http://e-center.doe.gov. Additional solicitation questions not posted on the website must be submitted at least two weeks before the deadline for Pre-applications or Applications.

Questions concerning this solicitation may addressed by contacting:

Ms. Bertha Crisp, U. S. Department of Energy, Oakland Area Office,
e-mail: bertha.crisp@oak.doe.gov

F. Award Instrument and Program Management

Negotiation, award, and administration will be in accordance with DOE Financial Assistance Rules (10CFR Part 600).

The Office of Research, Development and Simulation will manage the Stewardship Science Academic Alliances Program using the following dual system:

1. **Cooperative Agreements:** Centers of Excellence supporting the Physical Sciences area will be managed under Cooperative Agreements.
2. **Research Grants:** NNSA will manage all other successful Applicants through Research Grants.

The decision to manage a successful Applicant as a Cooperative Agreement or a Research Grant is the responsibility of the cognizant NNSA/DP federal program managers, with input from personnel at the NNSA/DP laboratories.

The cognizant NNSA/DP federal program managers, in coordination with and with assistance from the NNSA/DP laboratories personnel, will have responsibility for:

1. Conducting periodic reviews of the program to monitor progress and ensure alignment with the objectives of the program, and
2. Ensuring sustained technical exchanges with the NNSA/DP laboratory community.

Appropriate provisions will be incorporated in any resulting grant as determined by the DOE Financial Assistance Rules (10 CFR Part 600) and the projects selected for an award.

Appropriate intellectual property provisions will be incorporated in any resulting agreement in accordance with DOE Financial Assistance Rules (10 CFR Part 600) as determined by the status of the Applicant organization and the particular project.

An Application may be submitted by a Consortium or other business arrangement made up of U.S. universities and academic institutions, in which case the universities and/or institutions must decide how they will structure themselves (i.e., prime Recipient with subcontractors or establish

a separate legal entity) so that NNSA can issue an Award to a single legal entity. NNSA/DP laboratories shall **not** be members of such consortia or other business arrangements responding to this Solicitation.

G. North American Industry Classification System (NAICS) Number

The North American Industry Classification System (NAICS) Number is 541 for this solicitation. This information is provided for completion of Block 10 of the Application for Federal Assistance, Standard Form (SF) 424.

H. Sub-Awards to Debarred and Suspended Parties

Recipients and Participants, at any tier, must not make any Sub-award or permit any Sub-award (subcontract) to any party which is debarred, suspended, or is otherwise excluded from or ineligible for participation in Federal Assistance programs under Executive Order 12549, "Debarment and Suspension" or is otherwise ineligible hereunder.

I. Financial Assistance for Application Preparation

No funding will be available under the NNSA Minority Economic Impact (MEI) loan program for preparation of Applications in response to this Solicitation. NNSA assumes no responsibility for any costs associated with the Application preparation or submission of Application if an Award is not made. If an Award is made, such costs may be allowable as provided in the applicable cost principles.

J. Notice Regarding Eligible/Ineligible Activities

Eligible activities under this program include those which describe and promote the understanding of scientific and technical aspects of specific energy technologies, but not those which encourage or support political activities such as the collection and dissemination of information related to potential, planned or pending legislation.

K. Lobbying Restrictions

LOBBYING RESTRICTION (DEPARTMENT OF INTERIOR & RELATED AGENCIES APPROPRIATIONS ACT)

The contractor or Awardee agrees that none of the funds obligated on an Award shall be made available for any activity or the publication or distribution of literature that in any way tends to promote public support or opposition to any legislative proposal on which Congressional action is not complete. This restriction is in addition to those prescribed elsewhere in statute and regulation.

L. Notice Regarding Purchase of American-Made Equipment and Products — Sense of Congress

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under an Award should be American-made.

M. Compliance with Buy American Act

In accepting this award, the Recipient agrees to comply with sections 2 through 4 of the Act of March 3, 1933 (41 U.S.C. 10a - 10c, popularly known as the "Buy American Act"). The Recipient should review the provisions of the Act to ensure that expenditures made under this Award are in accordance with it.

N. Additional Information

The projects awarded as a result of this Solicitation will be administered by the Oakland Operations Office. Negotiation, award, and administration will be in accordance with DOE Financial Assistance Rules (10 CFR Part 600). A copy of 10 CFR 600 may be obtained electronically through the Oakland Operations Office Home Page at *OAK website URL*.

The Recipient will be required to submit quarterly project and financial status reports in accordance with DOE Form 4600.2, Federal Assistance Reporting Requirements Checklist, which will be included in the Award document.

NNSA may require Applications to be clarified or supplemented to the extent considered necessary, either through additional written submissions or oral presentations; however, the Award may be made solely on the information contained in the initial Application.

O. Application Preparation Costs

NNSA is under no obligation to pay for any costs associated with preparation or submission of Applications if an Award is not made.

P. Number of Awards

The exact number of Awards is unknown. NNSA reserves the right to fund, in whole or in part, any, all, or none of the Applications submitted in response to the Solicitation.

Q. National Environmental Policy Act (NEPA) Requirements

All Applicants shall complete an Environmental Checklist. This checklist is to be completed at the time of Application and included in the Administrative and Cost section of the Application as indicated in Section III.A. It is not to be submitted with the Pre-application. This checklist form will be placed on the website used for Amendments to this solicitation (see Section V.C)

following the deadline for Pre-application submission. The Environmental Checklist consists of a series of questions designed to gather information in the following general areas as related to the proposed Project: chemicals, waste generation, emissions, permitting, natural resources and any unique or controversial issues. The requested information will be used by NNSA to evaluate any potential impacts (positive and negative) on the environment and, accordingly, contain sufficient detail for the Department to meet its requirements under NEPA in its selection of Applications for negotiation of Award.

Applicants are restricted from taking any irreversible action, prior to DOE/NNSA/OAK reaching a final NEPA decision regarding the proposed Project. Irreversible actions include demolition of existing buildings, site clearing, ground breaking, construction, and/or detailed design. This restriction, however, does not preclude the Applicant from developing plans, preliminary designs, or performing other necessary support work prior to DOE/NNSA/OAK reaching its final NEPA decision, provided the work has been authorized by NNSA.

R. Forms

1. Application for Federal Assistance (Form 424) – http://www.whitehouse.gov/omb/grants/sf424.pdf
2. Yearly Budget Information (Standard Form 424a) – http://www.whitehouse.gov/omb/grants/sf424a.pdf
3. Assurance of Compliance (Form DOE 1600.5) – http://www.sc.doe.gov/production/grants/1600-5.html
4. Certifications (FA-CERTS) – http://www.sc.doe.gov/production/grants/certs.html
5. Environmental Checklist (available following Pre-application deadline)