

**FINANCIAL ASSISTANCE
FUNDING OPPORTUNITY ANNOUNCEMENT**



U. S. Department of Energy

Office of Health, Safety and Security

**Scientific and Technical Assistance for
Project 2.4: Mayak Worker Dosimetry**

Funding Opportunity Number: DE-FOA-0000003

Announcement Type: Initial

CFDA Number: 81.108

Issue Date:	06/10/2008
Letter of Intent Due Date:	Not Applicable
Pre-Application Due Date:	Not Applicable
Application Due Date:	07/21/2008 at 11:59:59 PM Eastern Time

NOTE: NEW REQUIREMENTS FOR GRANTS.GOV

Where to Submit

Applications must be submitted through Grants.gov to be considered for award. You cannot submit an application through Grants.gov unless you are registered. Please read the registration requirements carefully and start the process immediately. Remember you have to update your CCR registration annually. If you have any questions about your registration, you should contact the Grants.gov Helpdesk at 1-800-518-4726 to verify that you are still registered in Grants.gov.

Registration Requirements

There are several one-time actions you must complete in order to submit an application through Grants.gov (e.g., obtain a Dun and Bradstreet Data Universal Numbering System (DUNS) number, register with the Central Contract Registry (CCR), register with the credential provider, and register with Grants.gov). See <http://www.grants.gov/GetStarted>. Use the Grants.gov Organization Registration Checklist at <http://www.grants.gov/assets/OrganizationRegCheck.pdf> to guide you through the process. Designating an E-Business Point of Contact (EBiz POC) and obtaining a special password called an MPIN are important steps in the CCR registration process. Applicants, who are not registered with CCR and Grants.gov, should allow at least 21 days to complete these requirements. It is suggested that the process be started as soon as possible.

IMPORTANT NOTICE TO POTENTIAL APPLICANTS: When you have completed the process, you should call the Grants.gov Helpdesk at 1-800-518-4726 to verify that you have completed the final step (i.e. Grants.gov registration).

Questions

Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. Part VII of this announcement explains how to submit other questions to the U.S. Department of Energy (DOE).

Application Receipt Notices

After an application is submitted, the Authorized Organization Representative (AOR) will receive a series of five e-mails. It is extremely important that the AOR watch for and save each of the emails. It may take up to two (2) business days from application submission to receipt of email Number 2. When the AOR receives e-mail Number 5, it is their responsibility to follow the instructions in the e-mail to logon to IIPS and verify that their application was received by DOE. The titles of the five e-mails are:

- Number 1 – Grants.gov Submission Receipt Number
- Number 2 – Grants.gov Submission Validation Receipt for Application Number
- Number 3 – Grants.gov Grantor Agency Retrieval Receipt for Application Number
- Number 4 – Grants.gov Agency Tracking Number Assignment for Application Number
- Number 5 – DOE e-Center Grant Application Received

The last email will contain instructions for the AOR to register with the DOE e-Center. If the AOR is already registered with the DOE e-Center, the title of the last email changes to:

- Number 5 – DOE e-Center Grant Application Received and Matched

This email will contain the direct link to the application in IIPS. The AOR will need to enter their DOE e-Center user id and password to access the application.

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PART I – FUNDING OPPORTUNITY DESCRIPTION

Scientific and Technical Assistance for the Project 2.4, Mayak Worker Dosimetry Background

The Joint Coordinating Committee for Radiation Effects Research (JCCRER) is a bilateral Government committee representing Federal agencies from the United States and the Russian Federation. Its goal is to coordinate scientific research on the health effects of exposure to ionizing radiation in the Russian Federation from the production of nuclear weapons.

Jointly conducting radiation research with scientific investigators from the Russian Federation provides a unique opportunity to expand our understanding of possible risks to groups of radiation workers from long-term exposure to radiation. Such groups for whom the results of this research would be applicable include workers receiving exposure from uranium mining, operation of nuclear facilities, transport and disposal of radioactive materials, testing and dismantling nuclear weapons, radiation accidents, cleaning up grossly contaminated sites or facilities, and responding to radiological terrorism.

In 1948, the Soviet Union established a nuclear weapons production complex called the Mayak Production Association (Mayak) in Ozersk, Russia, which is located in the Southern Urals about 900 miles (1,500 km) southeast of Moscow. Because of limited and inadequate (by today's standards) radiation protection measures and procedures, thousands of Mayak workers were seriously overexposed to radiation during the early years of weapons production. Furthermore, enormous amounts of radioactive materials were released into the environment after a series of accidents and poor management practices at the Mayak complex between 1948 and 1967. As a result, thousands of square kilometers have been contaminated and hundreds of thousands of people have received significant radiation exposures from environmental contamination.

Most of our knowledge of health effects and risks associated with radiation exposures is based on studies of atomic bomb survivors in Japan, who were exposed to a very short burst of external radiation. The Mayak workers and residents in surrounding communities of the Southern Urals, on the other hand, experienced chronic exposures over a much longer period. The exposures were also from both external radiation and internally deposited radioactive compounds. This protracted pattern of exposure is similar to the one normally encountered or expected in the nuclear industry and in other uses of radiation. In addition to high exposures, there are also groups of people who received medium to low exposures. Therefore, studies on the Southern Urals populations, coupled with comparisons with U.S. nuclear worker data, may prove to be a key factor in future reassessments of radiation protection standards and regulations in the United States and worldwide.

Given these opportunities to advance our knowledge about the effects of ionizing radiation on humans and on the environment, on January 14, 1994, the Governments of the United States and the Russian Federation signed an "Agreement on Cooperation in Research on Radiation Effects for the Purpose of Minimizing the Consequences of Radioactive Contamination on Health and the Environment." The Agreement was renewed in 2000 and again in 2007 through 2009. The work is administered by the U.S. Department of Energy's (DOE) Office of International Health Studies (HS-14) in the United States and by Ministry of Health and Social Development's Federal Medical and Biological Agency (FMBA) in the Russian Federation.

JCCRER projects funded by DOE comprise DOE's Russian Health Studies Program. For further details, please consult the JCCRER website:

<http://www.hss.energy.gov/HealthSafety/IHS/ihp/jccrer.html>

The Russian Health Studies Program was developed to assess worker and public health risks from radiation exposure resulting from nuclear weapons production activities in the former Soviet Union. The goals of this program are to:

1. Clarify the relationship between health effects and chronic, low-to-medium dose radiation exposures;
2. Estimate cancer risks from exposure to gamma, neutron, and alpha radiation; and
3. Provide information to the national and international organizations that determine radiation protection standards and practices.

Approximately 30 U.S. scientists work with over 200 Russian researchers at Mayak, the Southern Urals Biophysics Institute (SUBI), and the Urals Research Center for Radiation Medicine (URCRM). The Program's budget for Fiscal Year 2008 was \$3.05 million. More information can be found at the Program's website:

http://www.hss.energy.gov/HealthSafety/IHS/hstudies/russian_health.html

Currently, DOE sponsors eight projects. Of these, five core projects focus on the epidemiology and dosimetry of the Techa River population and the Mayak workers:

[Project 1.1: Techa River Population Dosimetry;](#)

[Project 1.2b: Techa River Population Epidemiology;](#)

[Project 1.4: Ozersk Population Dose Reconstruction from Mayak Atmospheric Releases;](#)

[Project 2.2: Mayak Worker Epidemiology;](#) and

[Project 2.4: Mayak Worker Dosimetry.](#)

The other three projects are:

[Project 2.5: Improved Plutonium Dose Assessment Methods for Mayak Workers;](#)

[Project 2.7: Biomarkers of Radiation Exposure;](#) and

[Project 2.8: Mayak Worker Tissue Repository.](#)

Project 2.4: Mayak Worker Dosimetry

Brief Description: This dose reconstruction project is to establish a computerized database of individual internal and external radiation doses and uncertainty about those doses for each member of the Mayak worker cohort under study in Project 2.2, *Mayak Worker Epidemiology*. Currently, the cohort consists of approximately 27,000 individuals. This database has been designed to provide epidemiologists with estimates of the absorbed doses to organs from high and low linear energy transfer (LET) radiation for each year an individual worked at Mayak. The work product of this 3-year award will be to develop an electronic database containing updated and improved individual dose estimates by year called "Doses 2011." The improvements are anticipated in the identification and characterization of all sources of radiation exposure received by workers, quality assurance and

validation of archival sources of dosimetric data and the methods used to perform the dose estimates, and quantification of the uncertainty of the dose estimates. As a result, improved dose estimates for quantitative health risk assessment of causes of mortality effects from radiation exposure will be available. These data are also being used for other worker health effects research projects, including both cancer and non-cancer mortality.

This project is perhaps one of the most important of the eight current projects within the Russian Health Studies Program. Without accurate dose estimates, epidemiologists and biostatisticians will not be able to assess reliably radiation-induced cancer risks from exposure of humans to gamma, neutron, and alpha radiation. The Mayak worker cohort under study has the largest number of individuals and the highest chronic radiation exposures of any known population on earth. Approximately one-fourth of the exposed workers were women. Detailed health and exposure records are available at Mayak, thereby facilitating radiation health effects research.

Results to date: In addition to providing the dosimetric data for Project 2.2, this project has enhanced the understanding of plutonium metabolism in the human body and improved the biokinetic models for assessing dose from plutonium uptakes. These outcomes will be of direct benefit to DOE in improving the determination of dose to DOE workers from plutonium exposure. Improved doses have been calculated for a large portion of Mayak workers. Dose calculations and uncertainty analysis of the doses continues. In 2005, researchers completed the Doses 2005 database; it contains data on 18,831 Mayak workers employed between 1948 and 1972. Researchers are now preparing the Doses 2008 database for about 27,000 workers hired between 1948 and 1982; it will be completed in late 2008. Project 2.2 researchers will continue to analyze the data using the most recent dose estimates and will produce revised radiation cancer risk estimates by September 2012.

As of December 31, 2007, researchers working on Project 2.4 have published 46 peer-reviewed articles in scientific journals, including six articles in the September 2007 issue of *Health Physics*. The entire issue was devoted to the methodology for the Doses 2005 database. For complimentary copies of the September issue, please contact the Program Manager at Barrett.Fountos@eh.doe.gov. The references for all of Project 2.4 publications can be found at the Program's website at http://www.hss.energy.gov/HealthSafety/IHS/hstudies/Publications_Outcomes2007.doc

Projected end date: November 2011.

Scientific Support Needed:

By international agreement, all research is to be conducted collaboratively between scientists in the United States and Russia. The Russian scientists working on Project 2.4 will continue. DOE pays the Russian scientists under separate contractual mechanisms by DOE through the Civilian Research and Development Foundation. The specific support requested under this FOA is for the U.S. component of the research.

Since 2001, DOE has funded Project 2.4. The purpose of this announcement is to identify well-experienced organizations with expertise in worker historical internal and external radiation dose reconstruction and uncertainty analysis for use in epidemiological research. The work would be to

provide updated dose estimates and uncertainties about those estimates for approximately 27,000 Mayak workers first employed between 1948 and 1982. The final deliverable will be the Doses 2011 database. The qualified organization should have key staff with a Ph.D. or equivalent education and 10 or more years of experience in worker dose reconstruction. The anticipated level of effort is approximately 3.5 full time equivalents (FTEs), including project manager, dosimetrists, translators, and administrative support staff. The anticipated annual level of funding is \$400,000 per year for the base year plus two one-year option periods of \$400,000, for a total of \$1,200,000. The type of contractual mechanism will be a cooperative agreement.

Project 2.4 needs an organization to assist Russian researchers in the production of Doses 2011 database. There are five components to the ongoing work:

1. Internal Dosimetry;
2. External Dosimetry;
3. Uncertainty;
4. Quality Assurance; and
5. Translation and Editing of Russian text into English.

Currently, the Russian Federation will not permit the database to leave the country. Therefore, until such time that permits a copy of the database to be released to U.S. researchers working on the project, all hands-on quality assurance activities must take place in Russia.

Teleconferences:

To facilitate communication between U.S. and Russian researchers working on the project, in addition to quarterly travel to Russia, bi-weekly teleconferences are held. Because of the 10-hour time difference between Washington and Ozersk, these calls are usually held at 10:00 p.m. EST. The organization is expected to arrange the teleconference, including toll-free numbers for U.S. callers and linking to the Russian researchers, develop the agenda and circulate it 3-5 business days in advance of the meeting so that the Russians can translate it into Russian, and prepare notes from the meeting on the morning after the teleconference. Researchers' ability to speak Russian is not required, but would be helpful. The international teleconferences are conducted in English; the Russians provide an English-speaking interpreter.

Interactions with Epidemiologists:

Because of the purpose of Project 2.4 is to reconstruct doses for the Mayak worker cohort with the ultimate goal of providing accurate dosimetric data to the epidemiologists, it is essential that the organization interact with both U.S. and Russian Project 2.2 researchers. The U.S. principal investigator for Project 2.2 is Dr. Ethel Gilbert of the U.S. National Cancer Institute, Bethesda, Maryland, and the Russian principal investigator is Dr. Mikhail Sokolnikov of the Southern Urals Biophysics Institute, Ozersk, Russia.

Reports:

Written semi-annual technical progress reports are due to the Program Manager every April 15 and October 15. Monthly cost reports are due to the Program Manager by the 15th of the following month. Annual work proposals and budgets are due to the Program Manager every August 15.

Written responses to questions and comments from the Scientific Review Group (SRG) are due to the Program Manager within 30 days of receipt of comments from the SRG, unless specified otherwise by the Program Manager.

Publications:

Peer-reviewed publications throughout the project period are expected. These are collaborative efforts between the U.S. and Russian investigators.

Final Report:

A written final report will be due at the end of the project period. However, a publication summarizing the work performed to develop the Doses 2011 database can be submitted in lieu of a final report.

Final Deliverable:

The Mayak Worker Doses 2011 database will be the final deliverable.

PART II – AWARD INFORMATION

A. TYPE OF AWARD INSTRUMENT

- DOE anticipates awarding a cooperative agreement under this program announcement (See Section VI.B.2 Statement of Substantial Involvement)

B. ESTIMATED FUNDING

- Approximately \$1,200,000 is expected to be available for a new award under this announcement.

C. MAXIMUM AND MINIMUM AWARD SIZE

- Ceiling (i.e., the maximum amount for an individual award made under this announcement): \$400,000.
- Floor (i.e., the minimum amount for an individual award made under this announcement): \$200,000.

D. EXPECTED NUMBER OF AWARDS

- DOE anticipates making approximately one award under this announcement.

E. ANTICIPATED AWARD SIZE

- DOE expects to fund up to \$ 400,000 per year for up to 3 years.

F. PERIOD OF PERFORMANCE

- DOE anticipates making awards that will run for up to 3 years.

G. TYPE OF APPLICATION

- DOE will accept only new applications under this announcement.

PART III - ELIGIBILITY INFORMATION

A. ELIGIBLE APPLICANTS

- All types of domestic entities, including DOE/NNSA National Laboratory Contractors, are eligible to apply, except other Federal agencies, non-DOE Federally Funded Research and Development Center (FFRDC) Contractors, and nonprofit organizations described in section 501(c)(4) of the Internal Revenue Code of 1986 that engaged in lobbying activities after December 31, 1995.

B. COST SHARING {or MATCHING}

- Cost sharing is not required.
- **DOE/NNSA National Laboratory Contractors and Other Federally Funded Research and Development Center (FFRDC) Contractors**
 1. A DOE/NNSA National Laboratory Contractor is eligible to apply for funding under this announcement if its cognizant contracting officer provides written authorization and this authorization is submitted with the application. If a DOE/NNSA National Laboratory Contractor is selected for award, the proposed work will be authorized under the DOE work authorization process and performed under the laboratory's M&O contract. The following wording is acceptable for the authorization:

“Authorization is granted for the _____ Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complimentary to the missions of the laboratory and will not adversely impact execution of the DOE/NNSA assigned programs at the laboratory.”

2. FFRDC contractors may be proposed as team members on another entity's application, subject to the following guidelines:

Authorization for non-DOE/NNSA FFRDCs The Federal agency sponsoring the FFRDC contractor must authorize in writing the use of the FFRDC contractor on the proposed project and this authorization must be submitted with the application. The use of a FFRDC contractor must be consistent with the contractor's authority under its award and must not place the FFRDC contractor in direct competition with the private sector.

Authorization for DOE/NNSA FFRDCs The cognizant contracting officer for the FFRDC must authorize in writing the use of a DOE/NNSA FFRDC contractor on the proposed project and this authorization must be submitted with the application. The following wording is acceptable for this authorization.

“Authorization is granted for the _____ Laboratory to participate in the proposed project. The work proposed for the laboratory is consistent with or complimentary to the missions of the laboratory, will not adversely impact execution of the DOE/NNSA assigned programs at the laboratory, and will not place the laboratory in direct competition with the domestic private sector.”

Value/Funding The value of, and funding for, the FFRDC contractor portion of the work will not normally be included in the award to a successful applicant. Usually, DOE/NNSA will fund a DOE/NNSA FFRDC contractor through the DOE field work proposal system and other FFRDC contractors through an interagency agreement with the sponsoring agency.

Cost Share The applicant's cost share requirement will be based on the total cost of the project, including the applicant's and the FFRDC contractor's portions of the effort.

FFRDC Contractor Effort:

- The FFRDC contractor effort, in aggregate, shall not exceed 75% of the total estimated cost of the project, including the applicant's and the FFRDC contractor's portions of the effort.

Responsibility The applicant, if successful, will be the responsible authority regarding the settlement and satisfaction of all contractual and administrative issues, including but not limited to, disputes and claims arising out of any agreement between the applicant and the FFRDC contractor.

C. MEDICAL FITNESS FOR DUTY

- The standard of medical care overseas can differ greatly from that in the United States and Western Europe. Travelers should be aware that access to emergency health care in certain parts of Russia might not be available. In addition, travelers should consider purchasing insurance in case medical evacuation is necessary. The traveler(s) must be healthy enough for both foreign and domestic travel, willing to tolerate extreme temperatures (hot and cold), and capable of a moderate amount of walking. There are physical barriers at the site in Russia that would preclude access to persons with physical disabilities.
- Each proposal shall contain a medical certification that key personnel are medically fit for travel under the specified conditions. This medical certification shall not reveal any medical conditions. Instead, it should simply certify that the individual is fit for travel.

D. ABILITY TO TRAVEL AND WORK IN RUSSIA

- All proposed key personnel must be able to travel and work in remote parts of Russia. DOE will only pay for travel via economy class. Key personnel must be willing and physically capable of traveling on long international flights through many time zones. The organization must be willing to have, at a minimum, the principal investigator travel to Russia three to four times per year (about once every quarter) for one to two weeks at a time and to Washington once per year for one or two-day scientific meetings. The traveler must be willing to use applicable U.S. per diem rates and fly economy fare at Government rates within the United States and to and from Russia.
- Each proposal shall contain a certification that key personnel are willing to travel to Russia and are able to travel on flights of long duration in economy class.

PART IV – APPLICATION AND SUBMISSION INFORMATION

A. ADDRESS TO REQUEST APPLICATION PACKAGE

- Application forms and instructions are available at Grants.gov. To access these materials, go to <http://www.grants.gov>, select “Apply for Grants,” and then select “Download Application Package.” Enter the CFDA and/or the funding opportunity number located on the cover of this announcement and then follow the prompts to download the application package.

B. LETTER OF INTENT AND PRE-APPLICATION

1. Letter of Intent.

- Letters of Intent are not required.

2. Pre-application

- Pre-applications are not required.

C. CONTENT AND FORM OF APPLICATION – SF 424

You must complete the mandatory forms and any applicable optional forms (e.g., SF-LLL-Disclosure of Lobbying Activities) in accordance with the instructions on the forms and the additional instructions below. **Files that are attached to the forms must be in Adobe Portable Document Format (PDF) unless otherwise specified in this announcement.**

1. SF 424 - Application for Federal Assistance

Complete this form first to populate data in other forms. Complete all required fields in accordance with the pop-up instructions on the form. To activate the instructions, turn on the “Help Mode” (Icon with the pointer and question mark at the top of the form). The list of certifications and assurances referenced in Field 21 can be found on the DOE Financial Assistance Forms Page at http://management.energy.gov/business_doe/business_forms.htm under Certifications and Assurances.

2. Other Attachments Form

Submit the following files with your application and attach them to the Other Attachments Form. Click on “Add Mandatory Other Attachment” to attach the Project Narrative. Click on “Add Optional Other Attachment,” to attach the other files.

- **Project Narrative File - Mandatory Other Attachment**

The project narrative must not exceed 50 pages, including cover page, table of contents, charts, graphs, maps, photographs, and other pictorial presentations, when printed using standard 8.5” by 11” paper with 1 inch margins (top, bottom, left, and right). **EVALUATORS WILL REVIEW ONLY THE NUMBER OF PAGES SPECIFIED IN THE PRECEDING SENTENCE.** The font must not be smaller than 12 point. Do not include any Internet addresses (URLs) that provide information necessary to review the application. See Part VIII.D for instructions on how to mark proprietary application information. Save the information in a single file named “Project.pdf,” and click on “Add Mandatory Other Attachment” to attach.

The project narrative must include:

- Project Objectives. This section should provide a clear, concise statement of the specific

objectives/aims of the proposed project.

- Merit Review Criterion Discussion. The section should be formatted to address each of the merit review criterion and sub-criterion listed in Section V. A. Provide sufficient information so that reviewers will be able to evaluate the application in accordance with these merit review criteria. DOE/NNSA WILL EVALUATE AND CONSIDER ONLY THOSE APPLICATIONS THAT ADDRESS SEPARATELY EACH OF THE MERIT REVIEW CRITERION AND SUB-CRITERION.
- Project Timetable: This section should outline as a function of time, year by year, all the important activities or phases of the project, including any activities planned beyond the project period. Successful applicants must use this project timetable to report progress.
- Relevance and Outcomes/Impacts: This section should explain the relevance of the effort to the objectives in the program announcement and the expected outcomes and/or impacts. The justification for the proposed project should include a clear statement of the importance of the project in terms of the utility of the outcomes and the target community of beneficiaries.
- Roles of Participants: For multi-organizational or multi-investigator projects, describe the roles and the work to be performed by each participant/investigator, business agreements between the applicant and participants, and how the various efforts will be integrated and managed.
- Facilities And Other Resources: Identify the facilities (e.g., office, laboratory, computer, etc.) to be used at each performance site listed and, if appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Describe only those resources that are directly applicable to the proposed work. Provide any information describing the other resources available to the project such as machine and electronics shops.
- Bibliography And References, If Applicable: Provide a bibliography for any references cited in the Project Narrative section. This section must include only bibliographic citations.
- **Project Summary/Abstract File**

The project summary/abstract must contain a summary of the proposed activity suitable for dissemination to the public. It should be a self-contained document that identifies the name of the applicant, the project director/principal investigator(s), the project title, the objectives of the project, a description of the project, including methods to be employed, the potential impact of the project (i.e., benefits, outcomes), and major participants (for collaborative projects). This document must not include any proprietary or sensitive business information as the Department may make it available to the public. The project summary must not exceed one (1) page when printed using standard 8.5” by 11” paper with 1” margins (top, bottom, left and right) with font no smaller than 11 point. Save this information in a file named “Summary.pdf,” and click on “Add Optional Other Attachment” to attach.
- **Resume File**

Provide a resume for each key person proposed, including subawardees and consultants if they meet the definition of key person. A key person is any individual who contributes in a substantive, measurable way to the execution of the project. Save all resumes in a single file named “bio.pdf” and click on “Add Optional Other Attachment” to attach. The biographical information for each resume must not exceed 2 pages when printed on 8.5” by 11” paper

with 1 inch margins (top, bottom, left, and right) with font no smaller than 11 point and should include the following information, if applicable:

Education and Training. Undergraduate, graduate, and postdoctoral training; provide institution, major/area, degree, and year.

Professional Experience: Beginning with the current position list, in chronological order, professional/academic positions with a brief description.

Publications. Provide a list of up to 10 publications most closely related to the proposed project. For each publication, identify the names of all authors (in the same sequence in which they appear in the publication), the article title, book or journal title, volume number, page numbers, year of publication, and website address if available electronically.

Patents, copyrights, and software systems developed may be provided in addition to or substituted for publications.

Synergistic Activities. List no more than 5 professional and scholarly activities related to the effort proposed.

- **SF 424 A Excel, Budget Information – Non-Construction Programs File**
You must provide a separate budget for each year of support requested and a cumulative budget for the total project period. Use the SF 424 A Excel, “Budget Information – Non Construction Programs” form on the DOE Financial Assistance Forms Page at http://management.energy.gov/business_doe/business_forms.htm.
You may request funds under any of the Object Class Categories as long as the item and amount are necessary to perform the proposed work, meet all the criteria for allowability under the applicable Federal cost principles, and are not prohibited by the funding restrictions in this announcement (See PART IV, G). Save the information in a single file named “SF424A.xls,” and click on “Add Optional Other Attachment” to attach.
- **Budget Justification File**
You must justify the costs proposed in each Object Class Category/Cost Classification category (e.g., identify key persons and personnel categories and the estimated costs for each person or category; provide a list of equipment and cost of each item; identify proposed subaward/consultant work and cost of each subaward/consultant; describe purpose of proposed travel, number of travelers, and number of travel days; list general categories of supplies and amount for each category; and provide any other information you wish to support your budget). Provide the name of your cognizant/oversight agency, if you have one, and the name and phone number of the individual responsible for negotiating your indirect rates. If cost sharing is required, you must have a letter from each third party contributing cost sharing (i.e., a party other than the organization submitting the application) stating that the third party is committed to providing a specific minimum dollar amount of cost sharing. In the budget justification, identify the following information for each third party contributing cost sharing: (1) the name of the organization; (2) the proposed dollar amount to be provided; (3) the amount as a percentage of the total project cost; and (4) the proposed cost sharing – cash, services, or property. By submitting your application, you are providing assurance that you have signed letters of commitment. Successful applicants will be required to submit these signed letters of commitments. Save the budget justification information in a single file named “Budget.pdf,” and click on “Add Optional Other Attachment” to attach.
- **Subaward Budget File(s)**

You must provide a separate budget (i.e., budget for each budget year and a cumulative budget) for each subawardee that is expected to perform work estimated to be more than \$100,000 or 50 percent of the total work effort (whichever is less). Use the SF 424 A Excel for Non Construction Programs or the SF 424 C Excel for Construction Programs. These forms are found on the DOE Financial Assistance Forms Page at http://management.energy.gov/business_doe/business_forms.htm. Save each Subaward budget in a separate file. Use up to 10 letters of the subawardee's name (plus .xls) as the file name (e.g., ucla.xls or energyres.xls), and click on "Add Optional Other Attachment" to attach.

- **Budget for DOE/NNSA Federally Funded Research and Development Center (FFRDC) Contractor, if applicable**

If a DOE/NNSA FFRDC contractor is to perform a portion of the work, you must provide a DOE Field Work Proposal in accordance with the requirements in DOE Order 412.1 Work Authorization System. This order and the DOE Field Work Proposal form are available at http://management.energy.gov/business_doe/business_forms.htm. Use up to 10 letters of the FFRDC name (plus .pdf) as the file name (e.g., lanl.pdf or anl.pdf), and click on "Add Optional Other Attachment" to attach.

- **Project Management Plan**

This plan should be formatted to include the following sections with each section to include the information as described below:

A. Executive Summary: Provide a description of the project that includes the objective, project goals, and expected results. For purposes of the application, this information is included in the Project Narrative and should be simply copied to this document for completeness, so that the Project Management Plan is a stand-alone document.

B. Risk Management: Provide a summary description of the proposed approach to identify, analyze, and respond to perceived risks associated with the proposed project. Project risk events are uncertain future events that, if realized, impact the success of the project. As a minimum, include the initial identification of significant technical, resource, and management issues that have the potential to impede project progress and strategies to minimize impacts from those issues.

C. Milestone Log: Provide milestones for each budget period (or phase) of the project. Each milestone should include a title and planned completion date, Milestones should be quantitative and show progress toward budget period and/or project goals.

[Note: During project performance, the Recipient will report the Milestone Status as part of the required quarterly Progress Report as prescribed under Attachment 4, Reporting Requirements Checklist. The Milestone Status will present actual performance in comparison with Milestone Log, and include:

- (1) the **actual** status and progress of the project,
- (2) specific progress made toward achieving the project's milestones, and,
- (3) any proposed changes in the project's schedule required to complete milestones.]

D. Funding and Costing Profile: Provide a table (the Project Funding Profile) that shows, by budget period, the amount of government funding going to each project team member. Also,

provide a table (the Project Costing Profile) that projects, by month, the expenditure of government funds for the first budget period, at a minimum.

E. Project Timeline: Provide a timeline of the project (similar to a Gantt chart) broken down by each task and subtask, as described in the Statement of Project Objectives. The timeline should include for each task, a start date, and end date. The timeline should show interdependencies between tasks and include the milestones that are identified in the Milestone Log (Section C).

F. Success Criteria at Decision Points: Provide success criteria for each decision point in the project, including go/no-go decision points and the conclusions of budget periods and the entire project. The success criteria should be objective and stated in terms of specific, measurable, and repeatable data. Usually, the success criteria pertain to desirable outcomes, results, and observations from the project.

[Note: As the first task in the Statement of Project Objectives, successful applicants will revise the version of the Project Management Plan that is submitted with their applications by including details from the negotiation process. This Project Management Plan will be updated by the Recipient as the project progresses, and the Recipient must use this plan to report schedule and budget variances.]

Save this plan in a single file named “pmp pdf,” and click on “Add Optional Other Attachment” to attach.

3. SF-LLL Disclosure of Lobbying Activities

If applicable, complete SF- LLL. Applicability: If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the grant/cooperative agreement, you must complete and submit Standard Form - LLL, "Disclosure Form to Report Lobbying."

Summary of Required Forms/Files

Your application must include the following documents:

Name of Document	Format	File Name
Application for Federal Assistance – SF424	Form	N/A
Other Attachments Form: Attach the following files to this form:	Form	N/A
Project Narrative File	PDF	Project.pdf
Project Summary/Abstract File	PDF	Summary.pdf
Resume File <i>Optional</i>	PDF	Bio.pdf
SF 424A File - Budget Information for Non-Construction Programs or	Excel	SF424A.xls
SF 424C File - Budget Information for Construction Programs	Excel	SF424C.xls

Budget Justification File	PDF	Budget.pdf
Subaward Budget File(s) <i>Optional</i>	Excel	See Instructions
Budget for FFRDC Contractor, if applicable <i>Optional</i>	PDF	See Instructions
Project Management Plan, if applicable <i>Optional</i>	PDF	See Instructions
SF-LLL Disclosure of Lobbying Activities, if applicable.	Form	N/A

D. SUBMISSIONS FROM SUCCESSFUL APPLICANTS

If selected for award, DOE/NNSA reserves the right to request additional or clarifying information for any reason deemed necessary, including, but not limited to:

- Indirect cost information
- Other budget information
- Name and phone number of the Designated Responsible Employee for complying with national policies prohibiting discrimination (See 10 CFR 1040.5)
- Representation of Limited Rights Data and Restricted Software, if applicable
- Commitment Letter from Third Parties Contributing to Cost Sharing, if applicable

E. SUBMISSION DATES AND TIMES

1. Application Due Date

- Applications should be received by **July 21, 2008**, not later than **11:59:59 PM Eastern Time**. You are encouraged to transmit your application well before the deadline. The Grants.gov Helpdesk is not available after 9:00 PM Eastern Time. APPLICATIONS RECEIVED AFTER THE DEADLINE WILL NOT BE REVIEWED OR CONSIDERED FOR AWARD.

F. INTERGOVERNMENTAL REVIEW

- This program is not subject to Executive Order 12372 – Intergovernmental Review of Federal Programs.

G. FUNDING RESTRICTIONS

Cost Principles Costs must be allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600. The cost principles for commercial organization are in FAR Part 31.

Pre-award Costs Recipients may charge to an award resulting from this announcement pre-award costs that were incurred within the ninety (90) calendar day period immediately preceding the effective date of the award, if the costs are allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600. Recipients must obtain the prior approval of the contracting officer for any pre-award costs that are for periods greater than this 90 day calendar period.

Pre-award costs are incurred at the applicant's risk. DOE is under no obligation to reimburse such costs if for any reason the applicant does not receive an award or if the award is made for a lesser amount than the applicant expected.

H. OTHER SUBMISSION AND REGISTRATION REQUIREMENTS

1. Where to Submit

- **APPLICATIONS MUST BE SUBMITTED THROUGH GRANTS.GOV TO BE CONSIDERED FOR AWARD.** Submit electronic applications through the "Apply for Grants" function at www.Grants.gov. If you have problems completing the registration process or submitting your application, call Grants.gov at 1-800-518-4726 or send an email to support@grants.gov.

Registration Process

- You must COMPLETE the one-time registration process (all steps) before you can submit your first application through Grants.gov (See www.grants.gov/GetStarted). **We recommend that you start this process at least three weeks before the application due date.** It may take 21 days or more to complete the entire process. Use the Grants.gov Organizational Registration Checklists at <http://www.grants.gov/assets/OrganizationRegCheck.pdf> to guide you through the process. **IMPORTANT:** During the CCR registration process, you will be asked to designate an E-Business Point of Contact (EBIZ POC). The EBIZ POC must obtain a special password called "Marketing Partner identification Number" (MPIN). When you have completed the process, you should call the Grants.gov Helpdesk at 1-800-518-4726 to verify that you have completed the final step (i.e., Grants.gov registration).

3. Application Receipt Notices

After an application is submitted, the Authorized Organization Representative (AOR) will receive a series of five e-mails. It is extremely important that the AOR watch for and save each of the emails. It may take up to two (2) business days from application submission to receipt of email Number 2. When the AOR receives email Number 5, it is their responsibility to follow the instructions in the email to logon to IIPS and verify that their application was received by DOE. You will need the Submission Receipt Number (email Number 1) to track a submission. The titles of the five e-mails are:

Number 1 - Grants.gov Submission Receipt Number
Number 2 - Grants.gov Submission Validation Receipt for Application Number
Number 3 - Grants.gov Grantor Agency Retrieval Receipt for Application Number
Number 4 - Grants.gov Agency Tracking Number Assignment for Application Number
Number 5 – DOE e-Center Grant Application Received

The last email will contain instructions for the AOR to register with the DOE e-Center. If the AOR is already registered with the DOE e-Center, the title of the last email changes to:

Number 5 – DOE e-Center Grant Application Received and Matched

This email will contain the direct link to the application in IIPS. The AOR will need to enter their DOE e-Center user id and password to access the application.

Part V - APPLICATION REVIEW INFORMATION

A. CRITERIA

1. Initial Review Criteria

- Prior to a comprehensive merit evaluation, DOE will perform an initial review to determine that (1) the applicant is eligible for an award; (2) the information required by the announcement has been submitted; (3) all mandatory requirements are satisfied; and (4) the proposed project is responsive to the objectives of the funding opportunity announcement.

2. Merit Review Criteria

- All technical proposals will be reviewed for scientific merit by an external review board. Technical proposals will be evaluated on the strength of the proposed technical approach to developing Doses 2011 database. Cost proposals also will be evaluated for value to the Government.
- **Rating Factors and Weights:**
 1. Quality of technical approach (30%)
 2. Cost (20%);
 3. Knowledge and experience in performing occupational historical dose reconstruction for exposure to ionizing radiation, including quality assessment of the resultant dose estimates (15%);
 4. Track record of performing successful worker dose reconstruction, especially in the former Soviet Union (5%);
 5. Understanding of external dosimetry (5%), including:
 - beta, neutrons, and photons (both gamma and x-ray);
 - doses received from exposure to medical x-rays; and
 - the ability to both perform and evaluate radiation transport calculations.
 6. Understanding of internal dosimetry (5%), especially:
 - for plutonium and americium and fission products;
 - the ability to both perform and evaluate internal dose calculations.
 7. Understanding of current methods used to assess the uncertainty of dose estimates (5%);
 8. Track record of relevant publications in peer-reviewed journals for key personnel (5%);
 9. Scientific translation capabilities (5%); and
 10. Experience arranging international teleconferences (5%).

B. REVIEW AND SELECTION PROCESS

1. Merit Review

- Applications that pass the initial review will be subjected to a merit review in accordance with the guidance provided in the "Department of Energy Merit Review Guide for Financial Assistance and Unsolicited Proposals." This guide is available under Financial Assistance, Regulations and Guidance at <http://www.management.energy.gov/documents/meritrev.pdf>.

2. Selection

- The Selection Official will consider the merit review recommendation, program policy factors, and the amount of funds available.

3. Discussions and Award

- The Government may enter into discussions with a selected applicant for any reason deemed necessary, including but not limited to: (1) the budget is not appropriate or reasonable for the requirement; (2) only a portion of the application is selected for award; (3) the Government needs additional information to determine that the recipient is capable of complying with the requirements in 10 CFR part 600; and/or (4) special terms and conditions are required. Failure to resolve satisfactorily the issues identified by the Government will preclude award to the applicant.

C. ANTICIPATED NOTICE OF SELECTION AND AWARD DATES

- DOE anticipates notifying applicants selected for award by the end of October 2008.

Part VI - AWARD ADMINISTRATION INFORMATION

A. AWARD NOTICES

1. Notice of Selection

- DOE will notify applicants selected for award. This notice of selection is not an authorization to begin performance. (See Part IV.G with respect to the allowability of pre-award costs.)

Organizations whose applications have not been selected will be advised as promptly as possible. This notice will explain why the application was not selected.

2. Notice of Award

- A Notice of Financial Assistance Award issued by the contracting officer is the authorizing award document. It normally includes either as an attachment or by reference: (1). Special Terms and Conditions; (2). Applicable program regulations, if any; (3). Application as approved by DOE/NNSA.; (4). DOE assistance regulations at 10 CFR part 600, or, for Federal Demonstration Partnership (FDP) institutions, the FDP terms and conditions; (5). National Policy Assurances To Be Incorporated As Award Terms; (6). Budget Summary; and (7). Federal Assistance Reporting Checklist, which identifies the reporting requirements.

B. ADMINISTRATIVE AND NATIONAL POLICY REQUIREMENTS

1. Administrative Requirements

The administrative requirements for DOE grants and cooperative agreements are contained in 10 CFR part 600 (See: <http://ecfr.gpoaccess.gov>), except for grants and cooperative agreements made to Federal Demonstration Partnership (FDP) institutions. The FDP terms and conditions and DOE FDP agency specific terms and conditions are located on the National Science Foundation web site at http://www.nsf.gov/awards/managing/fed_dem_part.jsp.

2. Special Terms and Conditions and National Policy Requirements

Special Terms and Conditions and National Policy Requirements

The DOE Special Terms and Conditions for Use in Most Grants and Cooperative Agreements are located at http://management.energy.gov/business_doe/business_forms.htm.

The National Policy Assurances To Be Incorporated As Award Terms are located at DOE http://management.energy.gov/business_doe/business_forms.htm.

Intellectual Property Provisions

The standard DOE financial assistance intellectual property provisions applicable to the various types of recipients are located at http://www.gc.doe.gov/techtrans/sipp_matrix.html or <http://frwebgate.access.gpo.gov/cgi-bin/get-cfr.cgi?TITLE=10&part=600&SECTION=325&TYPE=TEXT>

Statement of Substantial Involvement {Required if “cooperative agreement” is one of the types of award instruments selected in Part II A.}

{Select **one**}

{Use the following paragraph if you selected the alternate with “both grant and cooperative agreement” in Part II.A}

- Either a grant or cooperative agreement may be awarded under this program announcement. If the award is a cooperative agreement, the DOE Specialist and DOE Project Officer will negotiate a Statement of Substantial Involvement prior to award.

C. REPORTING

Reporting requirements are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to the award agreement. See the NETL Business Page at <http://www.netl.doe.gov/business/forms/FederalAssistanceReportingChecklistExample> or <http://www.netl.doe.gov/business/forms.html> for the proposed Checklist for this program.

- **Progress Reports:**

Written semi-annual technical progress reports are due to the Program Manager every April 15 and October 15. These are evaluated by the Program Manager and the Scientific Review Group.

- **Cost Reports:**

Monthly cost reports are due to the Program Manager and the Program Analyst by the 15th of the following month. These are evaluated by the Program Manager and the Program Analyst.

- **Annual Work Proposals and Budgets:**

Annual work proposals and budgets are due to the Program Manager within 30 days of the award and every August 15 thereafter. These are evaluated by the Program Manager.

- **Response to Scientific Review Group Comments:**

Written responses to questions and comments from the Scientific Review Group (SRG) are due to the Program Manager within 30 days of receipt of comments from the SRG, unless specified otherwise by the Program Manager. These are evaluated by the Program Manager and the Scientific Review Group.

PART VII - QUESTIONS/AGENCY CONTACTS

A. QUESTIONS

Questions regarding the content of the announcement. Questions regarding the content of the announcement should be submitted through the "Submit Question" feature of the DOE Industry Interactive Procurement System (IIPS) at <http://e-center.doe.gov>. Locate the solicitation on IIPS and then click on the "Submit Question" button at the top. Enter required information. You will receive an electronic notification that your question has been answered. DOE will try to respond to a question within 3 days, unless a similar question and answer have already been posted on the website.

Responses to questions. Responses to questions may be viewed through the "View" Questions" feature, button at the top of the IIPS page. If no questions have been answered, a statement to that effect will appear at the top of the page. You should periodically check "View Questions" for new questions and answers.

Questions regarding how to submit questions or view responses can be e-mailed to the IIPS HELP Desk at helpdesk@pr.doe.gov or by calling 1 (800) 683-0751.

Questions relating to the registration process, system requirements, how an application form works, or the submittal process must be directed to Grants.gov at 1-800-518-4726 or support@grants.gov. DOE/NNSA cannot answer these questions.

B. AGENCY CONTACT

Barrett N. Fountos
Program Manager
Russian Health Studies Program
U.S. Department of Energy
Office of International Health Studies (HS-14/270 CC)
19901 Germantown Road
Germantown, MD 20874
Telephone: 301-903-6740
Fax: 301-903-1413
e-mail: Barrett.Fountos@hq.doe.gov

PART VIII - OTHER INFORMATION

A. MODIFICATIONS

Notices of any modifications to this announcement will be posted on Grants.gov and the DOE Industry Interactive Procurement System (IIPS). You can receive an email when a modification or an announcement message is posted by joining the mailing list for this announcement through the link in IIPS. When you download the application at Grants.gov, you can also register to receive notifications of changes through Grants.gov.

B. GOVERNMENT RIGHT TO REJECT OR NEGOTIATE

DOE reserves the right, without qualification, to reject any or all applications received in response to this announcement and to select any application, in whole or in part, as a basis for negotiation and/or award.

C. COMMITMENT OF PUBLIC FUNDS

The Contracting Officer is the only individual who can make awards or commit the Government to the expenditure of public funds. A commitment by other than the Contracting Officer, either explicit or implied, is invalid.

D. PROPRIETARY APPLICATION INFORMATION

Patentable ideas, trade secrets, proprietary or confidential commercial or financial information, disclosure of which may harm the applicant, should be included in an application only when such information is necessary to convey an understanding of the proposed project. The use and disclosure of such data may be restricted, provided the applicant includes the following legend on the first page of the project narrative and specifies the pages of the application which are to be restricted:

“The data contained in pages _____ of this application have been submitted in confidence and contain trade secrets or proprietary information, and such data shall be used or disclosed only for evaluation purposes, provided that if this applicant receives an award as a result of or in connection with the submission of this application, DOE shall have the right to use or disclose the data herein to the extent provided in the award. This restriction does not limit the government’s right to use or disclose data obtained without restriction from any source, including the applicant.”

To protect such data, each line or paragraph on the pages containing such data must be specifically identified and marked with a legend similar to the following:

“The following contains proprietary information that (name of applicant) requests not be released to persons outside the Government, except for purposes of review and evaluation.”

E. EVALUATION AND ADMINISTRATION BY NON-FEDERAL PERSONNEL

In conducting the merit review evaluation, the Government may seek the advice of qualified non-Federal personnel as reviewers. The Government may also use non-Federal personnel to conduct routine, nondiscretionary administrative activities. The applicant, by submitting its application, consents to the use of non-Federal reviewers/administrators. Non-Federal reviewers must sign conflict of interest and non-disclosure agreements prior to reviewing an application. Non-Federal personnel conducting administrative activities must sign a non-disclosure agreement.

F. INTELLECTUAL PROPERTY DEVELOPED UNDER THIS PROGRAM

{Required if the program is for RD&D or if technical data are expected to be first produced or specified to be delivered under an award.}

Patent Rights. The government will have certain statutory rights in an invention that is conceived or first actually reduced to practice under a DOE award. 42 U.S.C. 5908 provides that title to such inventions vests in the United States, except where 35 U.S.C. 202 provides otherwise for nonprofit organizations or small business firms. However, the Secretary of Energy may waive all or any part of the rights of the United States subject to certain conditions. (See “Notice of Right to Request Patent Waiver” in paragraph G below.)

Rights in Technical Data. Normally, the government has unlimited rights in technical data created under a DOE agreement. Delivery or third party licensing of proprietary software or data developed solely at private expense will not normally be required except as specifically negotiated in a particular agreement to satisfy DOE’s own needs or to insure the commercialization of technology developed under a DOE agreement.

APPENDICES/REFERENCE MATERIAL

- {Complete text block}