

NOTICE OF GRANT/ASSISTANCE AWARD

1. GRANT/AGREEMENT NO. NRC-02-06-015		2. MODIFICATION NO.	3. PERIOD OF PERFORMANCE FROM: 10/01/2006 TO: 09/30/2008	4. AUTHORITY Pursuant to Section 31a and 141b of the Atomic Energy Act of 1954, as amended	
5. TYPE OF AWARD <input type="checkbox"/> GRANT <input checked="" type="checkbox"/> COOPERATIVE AGREEMENT		6. ORGANIZATION TYPE NON-PROFIT DUNS: 003387891		7. RECIPIENT NAME AND ADDRESS UNIVERSITY OF TENNESSEE ATTN PHYLLIS TURNER 1 CIRCLE PARK KNOXVILLE TN 379960003	
8. PROJECT TITLE: EVALUATION AND EXTENSION OF THE EXPERIMENTAL BASIS FOR LICENSING 5-10% ENRICHED NUCLEAR REACTOR FUEL					
9. PROJECT WILL BE CONDUCTED PER GOVERNMENT'S/RECIPIENT'S PROPOSAL(S) DATED 6/1/2006 AND APPENDIX A-PROJECT GRANT PROVISIONS		10. TECHNICAL REPORTS ARE REQUIRED <input type="checkbox"/> PROGRESS AND FINAL <input checked="" type="checkbox"/> FINAL ONLY <input type="checkbox"/> OTHER (Conference Proceedings)		11. PRINCIPAL INVESTIGATOR(S) NAME AND ADDRESS Dr. Ronald Pevey Department of Nuclear Engineering 207 Pasqua Building 1004 Estabrook Road Knoxville TN 37996-2300	
12. NRC PROGRAM OFFICE (NAME & ADDRESS) Office of Nuclear Mat'l Safety & Sfgds ATTN: Brenda DuBose/Craig Hrabal 11545 Rockville Pike Mail Stop T-8A23 Rockville, MD 20852		13. ACCOUNTING & APPROPRIATION DATA APPN. NO: 31X0200 B&R NO: 65015333208 JOB CODE: J5578 BOC NO: 252A OFFICE ID NO: 5006R083		14. METHOD OF PAYMENT <input type="checkbox"/> ADVANCE BY TREASURY CHECK <input type="checkbox"/> REIMBURSEMENT BY TREASURY CHECK <input type="checkbox"/> LETTER OF CREDIT <input checked="" type="checkbox"/> OTHER (SPECIFY) ELECTRONIC TRANSFER (See Attach. 30 in Appendix A - "Electronic Payment")	
15. NRC OBLIGATION FUNDS		16. TOTAL FUNDING AGREEMENT			
THIS ACTION <u>\$128,184.00</u>		NRC <u>\$128,184.00</u>		This action provides funds for Fiscal Year 2006 in the amount of \$128,184.00	
PREVIOUS OBLIGATION _____		RECIPIENT _____			
TOTAL <u>\$128,184.00</u>		TOTAL <u>\$128,184.00</u>			
17. NRC ISSUING OFFICE (NAME AND ADDRESS) U.S. Nuclear Regulatory Commission Div. of Contracts/CMB3 Attn: Betty Freeman (301) 415-0587 Mail Stop T-7-I-2 Washington, DC 20555					
18. RECIPIENT <u></u> (Signature) <u>DR. W. F. HARRIS</u> NAME (TYPED) <u>Assoc. Vice Chancellor</u> for Research TITLE _____ TELEPHONE NO. <u>(865)974-3466</u> <u>9/26/06</u> (Date)		19. NRC CONTRACTING OFFICER <u></u> (Signature) <u>Robert B. Webber</u> NAME (TYPED) _____ TITLE <u>Contracting Officer</u> TELEPHONE NO. <u>(301) 415-6520</u> <u>9/25/06</u> (Date)			
20. PAYMENT INFORMATION <p>Payment will be made within thirty (30) days after receipt of the billing unless the bill is improper or the recipient has failed to comply with the program objectives, award conditions, Federal reporting requirements or other conditions specified in OMB Circular A-110.</p> <p>Payment will be made by: _____ Vouchers should be submitted in an original and three (3) copies on form 270 to:</p> <p>U.S. Nuclear Regulatory Commission Payment Team, Mail Stop T-9-H-4 Attn: (NRC-02-06-015) Washington, DC 20555 Washington DC</p> <p>US Nuclear Regulatory Commission Division of Contracts Mail Stop T-7-I-2 Washington, DC 20555</p>					
21. Attached is a copy of the "NRC General Provisions for Grants and Cooperative Agreements Awarded to Institutions of Higher Education and Other Nonprofit Organizations". Acceptance of these terms and conditions is acknowledged when Federal funds are used on this project.					
22. ORDER OF PRECEDENCE In the event of a conflict between the recipient's proposal and this award, the terms of the Award shall prevail.					
23. By this award, the Recipient certifies that payment of any audit-related debt will not reduce the level of performance of any Federal Program					

NRC GENERAL PROVISIONS FOR GRANTS AND COOPERATIVE AGREEMENTS AWARDED TO INSTITUTIONS OF HIGHER EDUCATION AND OTHER NONPROFIT ORGANIZATIONS

This award is subject to the following provisions:

1. General

- a. This award is composed of an award face page (which may incorporate the recipient's proposal by reference) and the NRC General Provisions for Grants and Cooperative Agreements Awarded to Institutions of Higher Education and Other Nonprofit Organizations.
- b. This award constitutes acceptance by the U.S. Nuclear Regulatory Commission (NRC) of the recipient's proposal and budget unless otherwise indicated on the face page.
- c. The recipient is obligated to conduct such project oversight as may be appropriate, to manage the funds with prudence, and to comply with the provisions outlined herein. Within this framework, the Principal Investigator (PI) named on the award face page is responsible for the scientific or technical direction of the project and for preparation of the project performance reports.
- d. This award is funded on a cost reimbursement basis not to exceed the amount awarded as indicated on the face page and is subject to a refund of unexpended funds to NRC.
- e. This award is subject to the policies prescribed in OMB Circular A-110, dated November 29, 1993, as amended.

2. Reporting Program Technical Performance

Recipients are responsible for the performance under grants and other agreements and, where appropriate, ensure that time schedules are being met, projected work units by time periods are being accomplished, and other performance goals are being achieved.

a. Frequency of Performance Reports

Performance reports will be submitted in letter format within 30 calendar days after the end of every second calendar quarter and a final report no later than the expiration date of the award period indicated on the face page.

b. Copies of Performance Reports

One copy of the letter report shall be submitted to the Division of Contracts and Property Management, three copies to the NRC Program Office (at the address indicated on the face page).

c. Content of Performance Report

The report content shall be as follows:

- (1) A comparison of actual accomplishments with the goals established for the period, the findings of the investigator, or both. If the output of programs or projects can be readily quantified, such quantitative data should be related to cost data for computation of unit costs.
- (2) Reasons why established goals were not met.
- (3) Other pertinent information including, when appropriate, analysis and explanation of anticipated cost overruns or high unit costs.
- (4) Between the required performance reporting dates, events may occur that have significant impact upon the project or program. In such instances, the recipient shall inform the Nuclear Regulatory Commission as soon as the following types of conditions become known:
 - (a) Problems, delays, or adverse conditions that will materially affect the ability to attain program objectives, prevent the meeting of time schedules and goals, or preclude the attainment of project work units by established time periods. This disclosure shall be accompanied by a statement of the action taken, or contemplated, and any Federal assistance needed to resolve the situation.
 - (b) Favorable developments or events that enable time schedules to be met sooner than anticipated or more work units to be produced than originally projected.
 - (c) If any performance review conducted by the recipient discloses the need for change in the budget estimates in accordance with the criteria established in Circular A-110, the recipient shall submit a request for budget revision.

d. Publication of Results

The general conditions of the assistance instrument will specify the publications requirements of the award and a provision for the granting to the Government a royalty free, nonexclusive, irrevocable license to reproduce, translate, publish, use and dispose of all copyrightable material first produced or composed in the recipient's performance under the grant or cooperative agreement.

Recipients may be required to produce reports to be published by NRC in accordance with the provisions of NRC Handbook 3.8 and NRC Manual Chapter 3206 or be given the option of publication in a recognized technical journal.

Each journal article submission must be accompanied by the following statement:

The submitted manuscript has been authored by a recipient of the U.S. Government under Award No. NRC-02-06-015 Accordingly, the U.S. Government has a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or allow others to do so, for U.S. Government purposes.

All open literature publications prepared under this award shall contain the following statement:

This paper was prepared with the support of the U.S. Nuclear Regulatory Commission (NRC) under Award No. NRC-02-06-015 The opinions, findings, conclusions and recommendations expressed herein are those of the author(s) and do not necessarily reflect the views of the NRC.

If requested by the journal or other publisher to transfer the copyright, the author shall respond to the journal or other publisher, in writing, in accordance with the sample letter shown below:

Sample Letter on Copyright Agreement

Dear _____:

We recently received a document for signature assigning copyright and republication rights in the submitted article (title) to (name or publication). This letter is offered in lieu of the document as a means of completing the transfer of ownership. Accordingly, we hereby expressly transfer and assign our rights of ownership in the above cited work to (name of publisher).

You are advised, however, that the above assignment and any publication or republication of the above cited work is subject to the following Government rights:

The submitted manuscript has been authored by a contractor (recipient) of the U.S. Government under contract (award) No. _____. Accordingly, the U.S. Government has a nonexclusive, royalty-free license to publish or reproduce the published form of this contribution, or allow others to do so, for U.S. Government purposes.

Sincerely,

e. Reprints of Publications

At such time as any article resulting from work under the award is published in a scientific technical or professional journal or publication, two reprints of the publication should be sent to the cognizant NRC Program Officer clearly labeled with the award number and other appropriate identifying information.

3. Suspension or Termination for Cause

a. When in the opinion of NRC, a recipient has materially failed to comply with the terms and conditions of an award, NRC may (1) suspend the award or (2) terminate the award for cause.

b. NRC prefers that deficiencies be corrected whenever practicable. When it is believed that a recipient has failed to comply with one or more of the terms and conditions of an award, the Grants Officer will advise the recipient by letter of the nature of the problem and that failure to correct the deficiency may result in suspension or termination of the award. The recipient will be requested to respond in writing within 30 days of receipt of such letter, describing the action taken or the plan designed to correct the deficiency. Copies of such correspondence will be furnished to the Principal Investigator (PI) and to the NRC Program Officer. If a satisfactory response is not received within 30 days of receipt of such a letter, the Grants Officer may issue a notice suspending authority to further obligate award funds, in whole or in part. The notice of suspension will be sent by certified mail (return receipt requested, to the recipient with a copy to the PI.) The notice will set forth the activities covered by the suspension and its effective date, and the corrective action required by the recipient in order to lift the suspension. However, this policy does not preclude immediate suspension or termination when such action is reasonable under the circumstances and necessary to protect the interests of the Government.

c. If an award is suspended pursuant to this article, no obligations incurred by the recipient during the period of suspension will be allowable under the suspended award other than necessary and proper costs that the recipient could not reasonably avoid during the period of suspension; provided that such costs would otherwise be allowable under the applicable Federal cost principles.

d. The suspension will remain in effect for a maximum of 90 days during which time the recipient will take corrective action to the satisfaction of NRC or give assurances satisfactory to NRC that corrective action will be taken. In that event, the Grants Officer will issue a notification, to the recipient, that the suspension is lifted.

e. In the event the deficiency is not corrected to the satisfaction of NRC, the Grants Officer may issue a notice of termination. The notice will establish the reasons for the action and its effective date.

f. If an award is terminated pursuant to this article, financial obligations incurred by the recipient prior to the effective date of termination shall be allowable to the extent they would have been allowable had the award not been terminated, except that no obligation incurred during the period in which the award was suspended (except those allowed pursuant to c, above) will be allowed. The settlement of termination costs will be in accordance with the applicable Federal cost principles.

g. Within 90 days of the effective date of termination, the recipient will furnish an itemized accounting of funds expended for allowable costs prior to the effective date of termination and the unexpended award balance.

4. Termination for Convenience

a. Circumstances may arise in which either NRC or the recipient wishes to terminate its performance of a project in whole or in part. If both parties agree, the award may be terminated by mutual agreement.

b. If the recipient wishes to terminate the project, it shall advise the NRC Grant Officer, with a copy to the cognizant NRC Program Officer.

c. If NRC wishes to terminate the project, the Grants Officer will advise the recipient with copies to the PI and the cognizant NRC Program Officer.

d. Within 30 days after receipt of a request from either party for termination by mutual agreement, the other party will provide an appropriate written response.

e. In the event of disagreement between the parties, the Grants Officer will make a final decision subject to the review procedures described in the following article entitled Dispute Review Procedure.

f. The recipient shall not incur new obligations for the terminated portion after the effective date, and shall cancel as many outstanding obligations as possible. The Nuclear Regulatory Commission shall allow full credit to the recipient for the Federal share of the noncancellable obligations, properly incurred by the recipient prior to termination.

5. Dispute Review Procedure

a. Any request for review of a notice of termination or other adverse decision should be addressed to the Grants Officer. It must be postmarked no later than 30 days after the postmarked date of such notice.

b. The request for review must contain a full statement of the recipient's position and the pertinent facts and reasons in support of such position.

c. The Grants Officer will promptly acknowledge receipt of the request for review and shall forward it to the Director, Office of Administration, who shall appoint a review committee consisting of a minimum of three persons.

d. Pending resolution of the request for review, the NRC may withhold or defer payments under the award during the review proceedings.

e. The termination review committee will request the Grants Officer who issued the notice of termination to provide copies of all relevant background materials and documents. It may, at its discretion, invite representatives of the recipient and the NRC program office to discuss pertinent issues and to submit such additional information as it deems appropriate. The chairman of the review committee will insure that all review activities or proceedings are adequately documented.

f. Based on its review, the committee will prepare its recommendations to the Director, Office of Administration, who will advise the parties concerned of his/her decision.

6. Travel

Domestic travel is an appropriate charge to this award, and prior authorization for specific trips is not required. Foreign travel must be clearly essential to the award effort and must, to be charged against this award, have prior explicit approval of the Grants Officer regardless of its inclusion in the approved award budget.

All common carrier travel reimbursable hereunder shall be via the least expensive class rates consistent with achieving the objective of the travel. If not available, reimbursement vouchers will be annotated that economy class accommodations were not available. First-class air travel is not authorized.

7. Use of U.S. Flag Carriers

a. The Comptroller General of the United States, by Decision B- 138942 of June 17, 1975, as amended, provided guidelines for implementation of Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974.

b. Any air transportation to, from, between, or within a country other than the U.S. of persons or property, the expense of which will be assisted by NRC funding, must be performed on a U.S. flag carrier if services provided by such carrier is available.

c. For the purposes of this requirement:

(1) Passenger of freight service by a certificated air carrier is considered available even though:

(a) Comparable or a different kind of service by a noncertificated air carrier costs less, or

(b) Service by a noncertificated air carrier can be paid for in excess foreign currency, or

(c) Service by a noncertificated air carrier is preferred by the recipient, contractor, or traveler needing air transportation, or

(d) Service by a noncertificated air carrier is convenient for the recipient, contractor, or traveler needing air transportation.

(2) Passenger service by a certificated air carrier is considered to be unavailable:

(a) When the traveler, while enroute, has to wait 6 hours or more for an available U.S. carrier, or

(b) When any flight by a U.S. flag carrier is interrupted by a stop anticipated to be 6 hours or more for refueling, reloading, repairs, etc., and no other flight by a U.S. air carrier is available during the 6 hour period, or

(c) When the flight by a U.S. air carrier takes 12 or more hours longer than a foreign carrier.

8. Allowable Costs

a. The allowability of costs and cost allocation methods for work performed under this award, up to the amount specified in the award instrument, shall be determined in accordance with the applicable Federal Cost Principles in effect on the effective date of the award and the terms of the award.

b. The Federal Cost Principles applicable to specific types of recipients are as follows:

(1) Institutions of higher education, OMB Circular A-21 is applicable to both public and private institutions of higher education.

(2) Nonprofit Organizations - OMB Circular A-122

9. Retention and Custodial Requirements for Records

Recipients shall retain and permit examination of records as required by OMB Circular A-110. Recipients shall place appropriate requirements on sub-grantees as specified.

10. Payment and Financial Reporting Requirements

Payments by NRC will be made by the method indicated on the face page. Recipient requests for payment, NRC payments, and recipient financial reporting requirements shall be made in accordance with OMB Circular A-110.

11. Property Management Standards

Property shall be accounted for and managed in accordance with OMB Circular A-110.

12. Copyright

operation, and, to the extent known, the physical, chemical, biological or electrical characteristics of the invention. The report shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and accepted at the time of disclosure.

d. Forfeiture of Title

(1) The recipient will convey to the NRC, upon written request, title to any subject invention:

(i) If the recipient fails to disclose or elect the subject invention within the times specified in c above, or elects not to retain title.

(ii) In those countries in which the recipient fails to file patent applications within the times specified in c above; provided, however, that if the recipient has filed a patent application in a country after the times specified in c above but prior to its receipt of the written request of the NRC, the recipient shall continue to retain title in that country; or

(iii) In any country in which the recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding of a patent on a subject invention.

e. Minimum Rights to Recipient

The recipient will retain a non-exclusive, royalty-free license throughout the world in each subject invention to which the Government obtains title except if the recipient fails to disclose the subject invention within the times specified in c above. This license extends to and is revocable and transferable, as specified in Part 5b(2) of Office of Federal Procurement Policy Bulletin 81-22 dated June 30, 1981.

f. Recipient Action to Protect Government's Interest

(1) The recipient agrees to execute or to have executed and promptly deliver to the NRC all instruments necessary to:

(i) Establish or confirm the rights the Government has throughout the world in those subject inventions for which the contractor retains title; and

(ii) Convey title to the NRC when requested under (d) above and to enable the Government to obtain patent protection throughout the world in that subject invention.

(2) The recipient agrees to require, by written agreement, its employees, other than clerical and non-technical employees to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the recipient each subject invention made under this award in order that the recipient can comply with the disclosure provisions of c above and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. The disclosure format should require, as a minimum, the information requested by subparagraph c(4) above. The recipient shall instruct such employees through the employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The recipient will notify the NRC of any decision not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than thirty days before the expiration of the response period required by the relevant patent office.

(4) The recipient agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statement, This invention was made with Government support under (identify the award) awarded by the Nuclear Regulatory Commission. The Government has certain rights in this invention.

g. Subcontracts

(1) The recipient will include this clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental or research work to be performed in the United States by a small business firm or a non-profit organization. The subcontractor will retain all rights provided for the recipient in this clause, and the recipient will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractor's subject inventions.

(2) The recipient will include in all other subcontracts, regardless of tier, for experimental, developmental or research work the patent rights clause required by Federal Procurement Regulation 1-9.107-5(a).

h. Reporting on Utilization of Subject Inventions

The recipient agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the recipient or its licenses or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the recipient, and such other data and information as the NRC may reasonably specify. The recipient also agrees to provide additional reports as may be

- a. The recipient shall report to the Grants Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this award of which the recipient has knowledge.
- b. In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this award or out of the use of any supplies furnished or work or services performed hereunder, the recipient shall furnish to the Government when requested by the Grants Officer, all evidence and information in possession of the recipient pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the recipient has agreed to indemnify the Government.
- c. This clause shall be included in all subcontracts.

15. Reporting of Royalties

If this award is in an amount which exceeds \$10,000 and if any royalty payments are directly involved in the award or are reflected in the award price to the Government, the recipient agrees to report in writing to the Patent Counsel, NRC (with notification by Patent Counsel to the Grants Officer) during the performance of this award and prior to its completion or final settlement the amount of any royalties or other payments paid or to be paid by it directly to others in connection with the performance of this award together with the names and addresses of licensors to whom such payments are made and either the patent numbers involved or such other information as will permit the identification of the patents or other basis on which the royalties are to be paid. The approval of NRC of any individual payments or royalties shall not stop the Government at any time from contesting the enforceability, validity or scope of, or title to, any patent under which a royalty or payments are made.

16. Procurement Standards

- a. NRC recipients shall follow the requirements of OMB Circular A-110.
- b. In addition, unless these provisions provide otherwise, prior written approval shall be obtained from the NRC Grants Officer before:
 - (1) Any of the research or other substantive project effort is contracted or otherwise transferred.
 - (2) Contracting for the commercial production or distribution of books, films, or similar materials.
- c. NRC approvals will be made by the Grants Officer, who will specify which requirements of this award must be flowed-down to satisfy the purposes of OMB Circular A-110.
- d. Recipient requests for approvals shall include an explanation of the need for the contracting, a proposed performance statement, justification for the price or estimated cost (including a detailed budget for cost-reimbursement type arrangements), and the basis for selecting the contractor.

17. Revision of Financial Plans

Award budget activity under this award is subject to the requirements of OMB Circular A-110.

18. Program Income

Program income is subject to the policy prescribed by OMB Circular A-110.

19. Statutory Requirements

a. Civil Rights

This award is subject to Title VI of the Civil Rights Act of 1964 (P.L. 88-352); Title IV, Sex Discrimination, of the Energy Reorganization Act of 1974, and Executive Order 11246, as amended, Parts II, III, and IV (for awards over \$10,000 within a twelve month period).

The recipient agrees that no person in the United States shall, on the ground of race, sex, color or national origin, be excluded from participation in, be deprived the benefits of, or be otherwise subjected to discrimination under any program or activity for which the recipient receives financial support from NRC.

b. Nondiscrimination Under Federal Grants and Cooperative Agreements

This award is subject to the provisions of the Rehabilitation Act of 1973, Public Law 93-112. The recipient therefore agrees that, No otherwise qualified handicapped individual in the United States (as defined in Section 7(6) of the Act), shall solely by reason of his/her handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Further, this award is subject to the provisions of the Age Discrimination Act of 1975 (42 U.S.C. 6101). The recipient therefore agrees that no age discrimination will occur under this Federally assisted program.

c. Clean Air - Clean Water

(Applicable only if the award exceeds \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Control Act (33 U.S.C. 1319(c)), and is listed by EPA.)

(a) The Recipient agrees as follows:

(1) To comply with all the requirements of section 114 of the Clean Air Act, as amended (42 U.S.C. 1857, et seq., as amended by Public Law 91-604) and section 308 of the Federal Water Pollution Control Act (33 U.S.C. 1251, et seq., as amended by Public Law 92-500), respectively, relating to inspection, monitoring, entry, reports, and information, as well as other requirements specified in section 114 and section 308 of the Clean Air Act and the Water Act, respectively, and all regulations and guidelines issued thereunder before the award of this award.

(2) That no portion of the work required by this award will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date that this award was awarded unless and until the EPA eliminates the name of such facility or facilities from such listing.

(3) To use his/her best efforts to comply with clean air standards and clean water standards at the facility in which the award is being performed.

(4) To insert the substance of the provisions of this clause into any nonexempt subcontract, including this paragraph (a)(4).

(b) The terms used in this clause have the following meanings:

(1) The term Air Act means the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Public Law 91-604).

(2) The term Water Act means the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Public Law 92-500).

(3) The term clean air standards means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive Order 11738, an applicable implementation procedure as described in section 110 (d) of the Clean Air Act (42 U.S.C. 1857c-5(d)), an approved implementation procedure or plan under section 111(c) or section 111(d), respectively, of the Air Act (42 U.S.C. 1857c-6(c) or (d)), or an approved implementation procedure under section 112(d) of the Air Act (42 U.S.C. 1857c-7(d)).

(4) The term clean water standards means any enforceable limitation, control, condition, prohibition, standard, or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharger by the Environmental Protection Agency or by a State under an approved program, as authorized by section 402 of the Water Act (33 U.S.C. 1342) or by local government to ensure compliance with pretreatment regulations as required by section 307 of the Water Act (33 U.S.C. 1317).

(5) The term compliance means compliance with clean air or water standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirements of the Air Act or Water Act and regulations issued pursuant thereto.

(6) The term facility means any building, plant, installation, structure, mine, vessel or other floating craft, location, or site of operations, owned, leased, or supervised by the recipient or subcontractor, to be utilized in the performance of work under an award or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be a facility except where the Director, Office of Federal Activities, Environmental Protection Agency, determines that independent facilities are collocated in one geographical area.

20. Liability and Losses

NRC assumes no liability with respect to any damages or loss arising out of any activities undertaken by the grant recipient with the financial support of this award.

21. Changes in Principal Investigator or Technical Objectives

a. The recipient shall be permitted to change the methods and procedures employed in performing the research without the need to make special reports on proposed actions or obtain NRC approval. Significant changes in methods or procedures shall be reported to NRC in status reports and final technical reports. However, in the event the methodology or experiment is proposed as a specific stated objective of the research work, it shall not be changed without approval of the Grants Officer.

b. The stated objective of the research effort shall not be changed, except with the approval of the NRC Grants Officer.

c. The phenomenon or phenomena under study, i.e., the broad category of research, shall not be changed except with the prior approval of the NRC Grants Officer.

A.1 52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEP 2005)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989-

(1) No 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 on his or her behalf in connection with the awarding of this contract;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) 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 on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer, and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure form to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

A.2 52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEP 2005)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before 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 any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action -

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those agency and legislative liaison activities expressly authorized by paragraph (b)(3)(i) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of -

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly or solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those professional and technical services expressly authorized by paragraph (b)(3)(ii) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) Disclosure.

(1) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes -

(i) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or received any subcontract exceeding \$100,000 under the Federal contract.

(4) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontractor file of the awarding Contractor.

(d) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(e) Penalties.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

A.3 52.223-5 POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (AUG 2003)

(a) Definitions. As used in this clause--

Priority chemical means a chemical identified by the Interagency Environmental Leadership Workgroup or, alternatively, by an agency pursuant to section 503 of Executive Order 13148 of April 21, 2000, Greening the Government through Leadership in Environmental Management.

Toxic chemical means a chemical or chemical category listed in 40 CFR 372.65.

(b) Executive Order 13148 requires Federal facilities to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11001-11050) and the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13101-13109).

(c) The Contractor shall provide all information needed by the Federal facility to comply with the following:

(1) The emergency planning reporting requirements of section 302 of EPCRA.

(2) The emergency notice requirements of section 304 of EPCRA.

(3) The list of Material Safety Data Sheets, required by section 311 of EPCRA.

(4) The emergency and hazardous chemical inventory forms of section 312 of EPCRA.

(5) The toxic chemical release inventory of section 313 of EPCRA, which includes the reduction and recycling information required by section 6607 of PPA.

(6) The toxic chemical, priority chemical, and hazardous substance release and use reduction goals of sections 502 and 503 of Executive Order 13148.

(c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.

(d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) and (c) of this clause may, pursuant to FAR 23.506, render the contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.