

STEVENSON-WYDLER (15 U.S.C. 3710)
COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT
(hereinafter "CRADA") No. ORNL-04-XXXX

BETWEEN

UT-Battelle, LLC

under its U.S. Department of Energy Contract
No. DE-AC05-00OR22725 (hereinafter "Contractor")

AND

(hereinafter "Participant"),

both being hereinafter jointly referred to as the "Parties."

ARTICLE I: DEFINITIONS

- A. "Government" means the Federal Government of the United States of America and agencies thereof.
- B. "DOE" means the Department of Energy, an agency of the Federal Government.
- C. "Contracting Officer" means the DOE employee administering the Contractor's DOE contract.
- D. "Generated Information" means information produced in the performance of this CRADA.
- E. "Proprietary Information" means information which embodies (i) trade secrets or (ii) commercial or financial information which is privileged or confidential under the Freedom of Information Act (5 U.S.C. 552 (b)(4)), either of which is developed at private expense outside of this CRADA and which is marked as Proprietary Information.
- F. "Protected CRADA Information" means Generated Information which is marked as being Protected CRADA Information by a Party to this CRADA and which would have been Proprietary Information had it been obtained from a non-Federal entity.
- G. "Subject Invention" means any invention of the Contractor or Participant conceived or first actually reduced to practice in the performance of work under this CRADA.
- H. "Intellectual Property" means Patents, Trademarks, Copyrights, Mask Works, Protected CRADA Information, and other forms of comparable property rights protected by Federal law and foreign counterparts, except trade secrets.

- I. “Trademark” means a distinctive mark, symbol, or emblem used in commerce by a producer or manufacturer to identify and distinguish its goods or services from those of others.
- J. “Service Mark” means a distinctive word, slogan, design, picture, symbol, or any combination thereof, used in commerce by a person to identify and distinguish its services from those of others.
- K. “Mask Work” means a series of related images, however fixed or encoded, having or representing the predetermined, three-dimensional pattern of metallic, insulating, or semiconductor material present or removed from the layers of a semiconductor chip product and in which series the relation of the images to one another is that each image has the pattern of the surface of one form of the semiconductor chip product.
- L. “Background Intellectual Property” means the Intellectual Property identified by the Parties in Appendix C, Background Intellectual Property, which was in existence prior to or is first produced outside of this CRADA, except that in the case of inventions in those identified items, the inventions must have been conceived outside of this CRADA and not first actually reduced to practice under this CRADA to qualify as Background Intellectual Property. Licensing of Background Intellectual Property, if agreed to by the Parties, shall be the subject of separate licensing agreements between the Parties. Background Intellectual Properties are not Subject Inventions.

ARTICLE II: STATEMENT OF WORK

The Statement of Work is attached as Appendix A.

ARTICLE III: TERM, FUNDING AND COSTS

- A. The effective date of this CRADA shall be the latter date of (1) the date on which it is signed by the last of the Parties, (2) the date on which it is approved by DOE, or (3) the date on which the advance funding referred to in Article III.E is received by the Contractor. The work to be performed under this CRADA shall be completed within _____ months/years from the effective date.
- B. The Participant’s estimated in-kind contributions is \$_____. The Government’s estimated contribution, which is provided through the Contractor’s contract with DOE, is \$_____ subject to available funding.

Case 2: 100 Percent Funds-In CRADA

- B. The Participant’s estimated contribution is \$_____ (with \$_____ being total funds-in (TFI) to the Contractor). *The Participant’s total funds-in contribution includes a 3% Federal Administrative Charge (FAC) in the amount of \$_____ (0.03 TFI/1.03). The total authorized amount to be expended on this project by Contractor is \$_____ (TFI minus FAC).

**Note: If the Participant qualifies for a waiver of the FAC, delete this sentence and the total authorized amount in the last sentence is the TFI.*

Case 3: Partial Funds-In CRADA

B. The Participant's estimated contribution is \$_____ (with \$_____ of that amount being total funds-in (TFI) to the Contractor). The Government's estimated contribution, which is provided through the Contractor's contract with DOE, is \$_____, subject to available funding. *The Participant's total funds-in contribution includes a Federal Administrative Charge (FAC) in the amount of \$_____ (0.03TFI/1.03). The total authorized amount to be expended by Contractor on this project is \$_____ (The Government's contribution plus TFI minus FAC).

**Note: If the Participant qualifies for a waiver of the FAC, delete this sentence and the total authorized amount in the last sentence is the sum of the Government's contribution and the TFI.*

C. Neither Party shall have an obligation to continue or complete performance of its work at a contribution in excess of its estimated contribution as contained in Article III.B, above, including any subsequent amendment.

D. Each Party agrees to provide at least 30 days' notice to the other Party if the actual cost to complete performance will exceed its estimated cost.

[E. For CRADAs which include (non-Federal) funding on a funds-in basis, an advance payment provision will be negotiated consistent with current DOE policy.]

ARTICLE IV: PERSONAL PROPERTY

All tangible personal property produced or acquired under this CRADA shall become the property of the Participant or the Government, depending upon whose funds were used to obtain it. Such property is identified in Appendix A, Statement of Work. Personal property shall be disposed of as directed by the owner at the owner's expense. All jointly funded property shall be owned by the Government.

ARTICLE V: DISCLAIMER

THE GOVERNMENT, THE PARTICIPANT, AND THE CONTRACTOR MAKE NO EXPRESS OR IMPLIED WARRANTY AS TO THE CONDITIONS OF THE RESEARCH OR ANY INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA, OR THE OWNERSHIP, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH OR RESULTING PRODUCT. NEITHER THE GOVERNMENT, THE PARTICIPANT, NOR THE CONTRACTOR SHALL BE LIABLE FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ATTRIBUTED TO SUCH RESEARCH OR RESULTING PRODUCT, INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DEVELOPED UNDER THIS CRADA.

ARTICLE VI: PRODUCT LIABILITY

Except for any liability resulting from any negligent acts or omissions of the Contractor, the Participant indemnifies the Government and the Contractor for all damages, costs, and expenses, including attorney's fees, arising from personal injury or property damage occurring as a result of the making, using, or selling of a product, process, or service by or on behalf of the Participant, its assignees, or licensees, which was derived from the work performed under this CRADA. In respect to this article, neither the Government nor the Contractor shall be considered assignees or licensees of the Participant, as a result of reserved Government and Contractor rights. The indemnity set forth in this paragraph shall apply only if the Participant shall have been informed as soon and as completely as practical by the Contractor and/or the Government of the action alleging such claim and shall have been given an opportunity, to the maximum extent afforded by applicable laws, rules, or regulations, to participate in and control its defense, and the Contractor and/or the Government shall have provided all reasonably available information and reasonable assistance requested by the Participant. No settlement for which the Participant would be responsible shall be made without the Participant's consent unless required by final decree of a court of competent jurisdiction.

ARTICLE VII: OBLIGATIONS AS TO PROPRIETARY INFORMATION

- A. Each Party agrees to not disclose Proprietary Information provided by another Party to anyone other than the CRADA Participant and Contractor without written approval of the providing Party, except to Government employees who are subject to the statutory provisions against disclosure of confidential information set forth in the Trade Secrets Act (18 U.S.C. 1905).
- B. If Proprietary Information is orally disclosed to a Party, it shall be identified as such, orally, at the time of disclosure and confirmed in a written summary thereof, appropriately marked by the disclosing Party, within 10 days as being Proprietary Information.
- C. All Proprietary Information shall be returned to the provider thereof at the conclusion of this CRADA at the provider's expense.
- D. All Proprietary Information shall be protected for a period of 3 years from the effective date of this CRADA, unless such Proprietary Information becomes publicly known without the fault of the recipient, shall come into recipient's possession without breach by the recipient of any of the obligations set forth herein, or is independently developed by recipient's employees who did not have access to such Proprietary Information.
- E. In no case shall the Contractor provide Proprietary Information of the Participant to any person or entity for commercial purposes, unless otherwise agreed to in writing by such Participant.

ARTICLE VIII: OBLIGATIONS AS TO PROTECTED CRADA INFORMATION

- A. Each Party may designate as Protected CRADA Information any Generated Information produced by its employees which meets the definition of Article I.F and, with the agreement of the other Party, so designate any Generated Information produced by the other Party's employees which meets the definition of Article I.F. All such designated Protected CRADA Information shall be appropriately marked.
- B. For a period of ____ [not to exceed 5 years] from the date Protected CRADA Information is produced, the Parties agree not to further disclose such information except:
- (1) as necessary to perform this CRADA;
 - (2) as provided in Article XI [REPORTS AND ABSTRACTS];
 - (3) as requested by the DOE Contracting Officer to be provided to other DOE facilities for use only at those DOE facilities with the same protection in place;
 - (4) as mutually agreed by the Parties in advance.
- C. The obligations of paragraph B above shall end sooner for any Protected CRADA Information which shall become publicly known without fault of either Party, shall come into a Party's possession without breach by that Party of the obligations of paragraph B above, or shall be independently developed by a Party's employees who did not have access to the Protected CRADA Information.

ARTICLE IX: RIGHTS IN GENERATED INFORMATION

The Parties and the Government shall have unlimited rights in all Generated Information produced or provided by a Party under this CRADA, except for information which is: (a) disclosed in a Subject Invention disclosure being considered for Patent protection, (b) protected as a Mask Work, or (c) marked as being Copyrighted or as Protected CRADA Information (during the time of protection set forth in Article VIII.B) or as Proprietary Information.

ARTICLE X: EXPORT CONTROL

- A. THE PARTIES UNDERSTAND THAT MATERIALS AND INFORMATION RESULTING FROM THE PERFORMANCE OF THIS CRADA MAY BE SUBJECT TO EXPORT CONTROL LAWS AND THAT EACH PARTY IS RESPONSIBLE FOR ITS OWN COMPLIANCE WITH SUCH LAWS.
- B. The Participant has a continuing obligation to provide the Contractor written notice of any changes in the nature and extent of foreign ownership, control, or influence over the Participant which would affect the Participant's answers to the previously completed FOCI certification.

ARTICLE XI: REPORTS AND ABSTRACTS

A. The Parties agree to produce the following deliverables:

- (1) an initial abstract suitable for public release at the time the CRADA is approved by DOE;
- (2) other abstracts (final when work is complete, and others as substantial changes in scope and dollars occur);
- (3) a final report, upon completion or termination of this CRADA, to include a list of Subject Inventions;
- (4) other topical/periodic reports, when the nature of research and magnitude of dollars justify; and
- (5) computer software in source and executable object code format as defined within the Statement of Work or elsewhere within the CRADA documentation. Such computer software subject to delivery under this Article and paragraph shall only be such software as generated in performance of a specific task under this CRADA.

Each of the above-identified deliverables shall include the project identification number as described in DOE's Research and Development (R&D) Tracking System Data and Process Guidance Document (<http://www.doe.gov/rd/>).

B. The Parties acknowledge that the Contractor has the responsibility to provide the above information at the time of its completion to the DOE Office of Scientific and Technical Information.

C. The Participant agrees to provide the above information to the Contractor to enable full compliance with paragraph B of this article.

D. The Parties acknowledge that the Contractor and DOE have a need to document the long-term economic benefit of the cooperative research under this CRADA. Therefore, the Participant shall respond to the Contractor's reasonable requests, during the term of this CRADA and for a period of _____ years [2 to 5 years would be reasonable] thereafter for pertinent information.

ARTICLE XII: PRE-PUBLICATION REVIEW

A. The Parties agree to secure pre-publication approval from each other which shall not be unreasonably withheld or denied beyond 30 days.

B. The Parties agree that neither will use the name of the other Party or its employees in any promotional activity, such as advertisements, with reference to any product or service resulting from this CRADA, without prior written approval of the other Party.

ARTICLE XIII: COPYRIGHTS

- A. The Parties may assert Copyright in any of their Generated Information. Assertion of Copyright generally means to enforce or give an indication of an intent or right to enforce such as by marking or securing Federal registration.
- B. Copyrights arising under this CRADA which are authored solely by employees of Participant shall be owned by Participant.

Copyrights which are authored solely by employees of Contractor and which are obtained by Contractor shall be owned by Contractor.

For copyrights arising under this CRADA authored by employees of both Parties, each Party shall have undivided rights in ownership of such copyrights, provided the copyrights are generated with the intention that the Parties' contributions be merged into inseparable or independent parts of a unitary whole. Jointly owned rights in copyrights shall be without accounting.

For a period of up to six (6) months from the date of completion or termination of this CRADA, Contractor agrees to offer an option to Participant to negotiate a nonexclusive Copyright License Agreement for any Copyright arising under this CRADA and obtained by Contractor. The U.S. Competitiveness Clause shall apply to all such Agreements.

- C. For Generated Information, the Parties acknowledge that the Federal Government has for itself and others acting on its behalf, a royalty-free, nontransferable, nonexclusive, irrevocable worldwide Copyright license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Federal Government, all Copyrightable works produced in the performance of this CRADA, subject to the restrictions this CRADA places on publication of Proprietary Information and Protected CRADA Information.
- D. For all Copyrighted computer software produced in the performance of this CRADA, the Party owning the Copyright will provide the source code, an expanded abstract as described in Appendix B, the executable object code and the minimum support documentation needed by a competent user to understand and use the software to DOE's Energy Science and Technology Software Center, P.O. Box 1020, Oak Ridge, TN 37831. The expanded abstract will be treated in the same manner as Generated Information in paragraph C of this article.
- E. The Contractor and the Participant agree that, with respect to any Copyrighted computer software produced in the performance of this CRADA, DOE has the right, at the end of the period set forth in paragraph B of Article VIII hereof and at the end of each 2-year interval thereafter, to request the Contractor and the Participant and any assignee or exclusive licensee of the Copyrighted software to grant a nonexclusive, partially exclusive, or exclusive license to a responsible applicant upon terms that are reasonable under the circumstances, provided such grant does not cause a termination of any licensee's right to use the Copyrighted computer software. If the Contractor or the Participant or any assignee or exclusive licensee refuses such request, the Contractor and the Participant agree that DOE

has the right to grant the license if DOE determines that the Contractor, the Participant, assignee, or licensee has not made a satisfactory demonstration that it is actively pursuing commercialization of the Copyrighted computer software.

Before requiring licensing under this paragraph E, DOE shall furnish the Contractor/Participant written notice of its intentions to require the Contractor/Participant to grant the stated license, and the Contractor/Participant shall be allowed 30 days (or such longer period as may be authorized by the cognizant DOE Contracting Officer for good cause shown in writing by the Contractor/Participant) after such notice to show cause why the license should not be required to be granted.

The Contractor/Participant shall have the right to appeal the decision by DOE to the grant of the stated license to the Invention Licensing Appeal Board as set forth in paragraphs (b)-(g) of 10 CFR 781.65, "Appeals."

- F. The Parties agree to place Copyright and other notices, as appropriate for the protection of Copyright, in human-readable form onto all physical media, and in digitally encoded form in the header of machine-readable information recorded on such media such that the notice will appear in human-readable form when the digital data are off loaded or the data are accessed for display or printout.

ARTICLE XIV: REPORTING SUBJECT INVENTIONS

- A. The Parties agree to disclose to each other each Subject Invention which may be patentable or otherwise protectable under the Patent Act sufficient to preserve U.S. and Foreign filing rights as necessary. The Parties agree that the Contractor and the Participant will disclose their respective Subject Inventions to DOE and each other within two (2) months after the inventor first discloses the Subject Invention in writing to the person(s) responsible for Patent matters of the disclosing Party.
- B. These disclosures should be in sufficiently complete technical detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, and operation of the Subject Invention. The disclosure shall also identify any known actual or potential statutory bars; i.e., printed publications describing the Subject Invention or the public use or "on sale" of the Subject Invention in this county. The Parties further agree to disclose to each other any subsequently known actual or potential statutory bar that occurs for a Subject Invention disclosed but for which a patent application has not been filed. All Subject Invention disclosures shall be marked as confidential under 35 U.S.C. 205.

ARTICLE XV: TITLE TO SUBJECT INVENTIONS

Wherein DOE has granted the Participant and the Contractor the right to elect title to their respective Subject Inventions, and wherein the Participant has the option to choose an exclusive license, for reasonable compensation, for a pre-negotiated field of use to the Contractor's Subject Inventions;

- A. Each Party shall have the first option to elect title to any Subject Invention made by its

employees, solely or jointly, and that election shall be made: (1) for the Participant, within 12 months of disclosure of the Subject Invention to DOE or (2) for the Contractor, within [insert in this space the time period specified in its prime contract for electing title to Subject Inventions] of disclosure of the Subject Invention to DOE. If a Party does not elect title to any Subject Invention of its employees, the other Party shall have the second option to elect title to such Subject Invention. DOE shall have the right to elect title to any Subject Invention which is not elected by any Party.

- B. The Parties acknowledge that DOE may obtain title to each Subject Invention reported under Article XIV for which a patent application or applications are not filed pursuant to Article XVI and for which any issued patents are not maintained by any Party to this CRADA.
- C. The Parties acknowledge that the Government retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States every Subject Invention under this CRADA throughout the world. The Parties agree to execute a confirmatory license to affirm the Government's retained license.
- D. The Participant has the option, for up to six (6) months after receipt of notice from the Contractor that the Contractor has elected title to any Contractor Subject Invention, to choose, for reasonable compensation, an exclusive license to Contractor's Subject Invention(s) in the field of use of _____ (insert the field of use negotiated between the Parties. *[If there are several Participants, the Contractor agrees to grant to the several Participants, for reasonable compensation, licensing rights that collectively encompass the rights that would be held under such an exclusive license by one Participant.]* The U.S. Competitiveness Clause shall apply to all such license agreements.

ARTICLE XVI: FILING PATENT APPLICATIONS

- A. The Parties agree that the Party initially indicated as having an ownership interest in any Subject Inventions ("Inventing Party") shall have the first opportunity to file U.S. and foreign Patent applications. If the Contractor or Participant does not file such applications within one year after election, then the other Party to this CRADA exercising an option pursuant to Article XV may file patent applications on such Subject Inventions. If a patent application is filed by the other Party ("Filing Party"), the Inventing Party shall reasonably cooperate and assist the Filing Party, at the Filing Party's expense, in executing a written assignment of the Subject Invention to the Filing Party and in otherwise perfecting the patent application, and the Filing Party shall have the right to control the prosecution of the patent application. The Parties shall agree between themselves as to who will file patent applications on any joint Subject Invention. Unless otherwise negotiated between the Parties, the Parties shall share equally in the costs for the prosecution, filing and maintenance of joint Subject Inventions where both Parties elect title to their undivided rights.
- B. The Parties agree that DOE has the right to file patent applications in any country if neither Party desires to file a patent application for any Subject Invention. Notification of such negative intent shall be made in writing to the DOE Contracting Officer within 3 months of

the decision of the non-Inventing Party to not file a patent application for the Subject Invention pursuant to Article XV or not later than 60 days prior to the time when any statutory bar might foreclose filing of a U.S. patent application.

- C. The Parties agree to include within the beginning of the specification of any U.S. patent applications and any patent issuing thereon (including foreign patents) covering a Subject Invention, the following statement: “This invention was made under a CRADA (identify CRADA number) between (name the Participant) and (name the laboratory) operated for the United States Department of Energy. The Government has certain rights in this invention.”
- D. A Party electing title or filing a patent application in the United States or in any foreign country shall advise the other Party and DOE if it no longer desires to continue prosecution, pay maintenance fees, or retain title in the United States or any foreign country. The other Party and then DOE will be afforded the opportunity to take title and retain the patent rights in the United States or in any such foreign country.

ARTICLE XVII: TRADEMARKS

- A. The Parties may seek to obtain Trademark/Service Mark protection on products or services generated under this CRADA in the United States or foreign countries. The Parties hereby acknowledge that the Government shall have the right to indicate on any similar goods or services produced by or for the Government that such goods or services were derived from and are a DOE version of the goods or services protected by such Trademark/ Service Mark, with the Trademark and the owner thereof being specifically identified. In addition, the Government shall have the right to use such Trademark/Service Mark in print or communications media.
- B. For a period of up to six (6) months from the date of completion or termination of this CRADA, Contractor agrees to offer an option to Participant to negotiate a nonexclusive Trademark License Agreement for any Trademark arising under this CRADA and obtained by Contractor. The U.S. Competitiveness Clause shall apply to all such Agreements.

ARTICLE XVIII: MASK WORKS

- A. The Parties may seek to obtain legal protection for Mask Works fixed in semiconductor products generated under this CRADA as provided by Chapter 9 of Title 17 of the United States Code. The Parties hereby acknowledge that the Government or others acting on its behalf shall retain a nonexclusive, paid-up, worldwide, irrevocable, nontransferable license to reproduce, import, or distribute the covered semiconductor product by or on behalf of the Government, and to reproduce and use the Mask Work by or on behalf of the Government.
- B. For a period of up to six (6) months from the date of completion or termination of this CRADA, Contractor agrees to offer an option to Participant to negotiate a nonexclusive Mask Works License Agreement for any Mask Works arising under this CRADA and obtained by Contractor. The U.S. Competitiveness Clause shall apply to all such Agreements.

ARTICLE XIX: COST OF INTELLECTUAL PROPERTY PROTECTION

Each Party shall be responsible for payment of all costs relating to Copyright, Trademark, and Mask Work filing; U.S. and foreign patent application filing and prosecution; and all costs relating to maintenance fees for U.S. and foreign patents hereunder which are solely owned by that Party. Government/DOE laboratory funds contributed as DOE's cost share to a CRADA cannot be given to the Participant for payment of the Participant's costs of filing and maintaining Patents or filing for Copyrights, Trademarks, or Mask Works.

ARTICLE XX: REPORTS OF INTELLECTUAL PROPERTY USE

The Participant agrees to submit, for a period of ____ years from the date of termination or completion of this CRADA and upon request of DOE, a nonproprietary report no more frequently than annually on efforts to utilize any Intellectual Property arising under the CRADA.

ARTICLE XXI: DOE MARCH-IN RIGHTS

The Parties acknowledge that DOE has certain march-in rights to any Subject Inventions in accordance with 48 CFR 27.304-1(g) and 15 U.S.C. 3710a(b)(1)(B) and (C).

ARTICLE XXII: U.S. COMPETITIVENESS

The Parties agree that a purpose of this CRADA is to provide substantial benefit to the U.S. economy.

- A. In exchange for the benefits received under this CRADA, the Participant therefore agrees to the following:
1. Products embodying Intellectual Property developed under this CRADA shall be substantially manufactured in the United States, and
 2. Processes, services, and improvements thereof which are covered by Intellectual Property developed under this CRADA shall be incorporated into the Participant's manufacturing facilities in the United States either prior to or simultaneously with implementation outside the United States. Such processes, services, and improvements, when implemented outside the United States, shall not result in reduction of the use of the same processes, services, or improvements in the United States.
- B. The Contractor agrees to a U.S. Industrial Competitiveness Clause in accordance with its prime contract with respect to any licensing and assignments of its Intellectual Property arising from this CRADA, except that any licensing or assignment of its Intellectual Property rights to the Participant shall be in accordance with the terms of paragraph A of this article.

ARTICLE XXIII: ASSIGNMENT OF PERSONNEL

- A. Each Party may assign personnel to the other Party's facility as part of this CRADA to participate in or observe the research to be performed under this CRADA. Such personnel assigned by the assigning Party shall not during the period of such assignments be considered employees of the receiving Party for any purpose.
- B. The receiving Party shall have the right to exercise routine administrative and technical supervisory control of the occupational activities of such personnel during the assignment period and shall have the right to approve the assignment of such personnel and/or to later request their removal by the assigning Party.
- C. The assigning Party shall bear any and all costs and expenses with regard to its personnel assigned to the receiving Party's facilities under this CRADA. The receiving Party shall bear facility costs of such assignments.

ARTICLE XXIV: FORCE MAJEURE

No failure or omission by the Contractor or the Participant in the performance of any obligation under this CRADA shall be deemed a breach of this CRADA or create any liability if the same shall arise from any cause or causes beyond the control of the Contractor or the Participant, including but not limited to the following, which, for the purpose of this CRADA, shall be regarded as beyond the control of the Party in question: Acts of God, acts or omissions of any government or agency thereof, compliance with requirements, rules, regulations, or orders of any governmental authority or any office, department, agency, or instrumentality thereof, fire, storm, flood, earthquake, accident, acts of the public enemy, war, rebellion, insurrection, riot, sabotage, invasion, quarantine, restriction, transportation embargoes, or failures or delays in transportation.

ARTICLE XXV: ADMINISTRATION OF THE CRADA

The Contractor enters into this CRADA under the authority of its prime contract with DOE. The Contractor is authorized to and will administer this CRADA in all respects unless otherwise specifically provided for herein. Administration of this CRADA may be transferred from the Contractor to DOE or its designee with notice of such transfer to the Participant, and the Contractor shall have no further responsibilities except for the confidentiality, use and/or nondisclosure obligations of this CRADA.

ARTICLE XXVI: RECORDS AND ACCOUNTING FOR GOVERNMENT PROPERTY

The Participant shall maintain records of receipts, expenditures, and the disposition of all Government property in its custody related to the CRADA.

ARTICLE XXVII: NOTICES

- A. Any communications required by this CRADA, if given by postage prepaid first class U.S. Mail or other verifiable means addressed to the Party to receive the communication, shall be

deemed made as of the day of receipt of such communication by the addressee, or on the date given if by verified facsimile. Address changes shall be given in accordance with this article and shall be effective thereafter. All such communications, to be considered effective, shall include the number of this CRADA.

B. The addresses, telephone numbers, and facsimile numbers for the Parties are as follows:

1. For Contractor:

U.S. Mail Only:	FedEx, UPS, Freight
P. O. Box 2008, MS-6499	111B Union Valley Road, MS-6499
Oak Ridge, Tennessee 37831	Oak Ridge, Tennessee 37831

a. Formal Notices and Communications, Copies of Reports

Attn: Ms. Christy W. Griffith
Tel: (865) 574-4495
Fax: (865) 576-9465

b. Project Manager, Reports, Copies of Formal Notices and Communications

Attn: _____
Tel: _____
Fax: _____

2. For Participant:

U.S. Mail Only:	FedEx, UPS, Freight
_____	_____
_____	_____

a. Formal Notices and Communications, Copies of Reports

b. Project Manager, Reports, Copies of Formal Notices and Communications

Attn: _____
Tel: _____
Fax: _____

ARTICLE XXVIII: DISPUTES

The Parties shall attempt to jointly resolve all disputes arising from this CRADA. If the Parties are unable to jointly resolve a dispute within a reasonable period of time, the dispute shall be decided by the DOE Contracting Officer, who shall reduce his/her decision to writing within 60 days of receiving in writing the request for a decision by either Party to this CRADA. The DOE Contracting

Officer shall mail or otherwise furnish a copy of the decision to the Parties. The decision of the DOE Contracting Officer is final unless, within 120 days, the Participant brings an action for adjudication in a court of competent jurisdiction in the State of Tennessee. To the extent that there is no applicable U.S. Federal law, this CRADA and performance thereunder shall be governed by the law of the State of Tennessee.

ARTICLE XXIX: ENTIRE CRADA AND MODIFICATIONS

- A. This CRADA with its appendixes contains the entire agreement between the Parties with respect to the subject matter hereof, and all prior representations or agreements relating hereto have been merged into this document and are thus superseded in totality by this CRADA. This CRADA shall not be effective until approved by DOE.
- B. Any agreement to materially change any terms or conditions of this CRADA or the appendixes shall be valid only if the change is made in writing, executed by the Parties hereto, and approved by DOE.

ARTICLE XXX: TERMINATION

This CRADA may be terminated by either Party upon ___ days written notice to the other Party. This CRADA may also be terminated by the Contractor in the event of failure by the Participant to provide the necessary advance funding, as agreed in Article III.

In the event of termination by either Party, each Party shall be responsible for its share of the costs incurred through the effective date of termination, as well as its share of the costs incurred after the effective date of termination, and which are related to the termination.

FOR CONTRACTOR:

By: _____

Name: Alexander R. Fischer, Director
Technology Transfer and Economic Development
Title: Oak Ridge National Laboratory

Date: _____

FOR PARTICIPANT:

By: _____

Name: _____

Title: _____

Date: _____

DRAFT

Appendix A
Statement of Work

DRAFT

Appendix B
ABSTRACT FORMAT DESCRIPTION
(Character limit for any one field: 2,000)
(Character limit for all information: 9,000)
Text only; no diagrams or flowcharts

Due to the differences in size and complexity among software packages and the corresponding differences in their respective documentation requirements, a specific form for the required Abstract document has not been provided. Instead, this Abstract Format Description contains a listing of the data elements required for the Abstract and a brief description of each data element. The person assembling the submittal package is expected to create the Abstract document using a text editor. Please note that each of the listed data elements is REQUIRED, and a response for each data element MUST be included in the completed Abstract document.

1. Identification. Provide the following two fields to be used to uniquely identify the software. The software acronym plus the short or KWIC (keywords in context) title will be combined to be used as the identification of the software.

Software Acronym (limit 20 characters). The name given to the main or major segment of module packaged usually becomes the name of the code package. If an appropriate name is not obvious, invent one which is related to the contents.

Short or KWIC title (limit 80 characters). This title should tell something of the nature of the code system: calculational method, geometry, or any feature that distinguishes this code package from another. It should be telegraphic in style, with no extraneous descriptors, but more than a string of keywords and phrases. The word "code" (alone) and "program" do not belong in a description of a code "package."

2. Author Name(s) and Affiliations. List author(s) or contributor(s) names followed by the organizational affiliation. If more than one affiliation is applicable, please pair authors with their affiliations.
3. Software Completion Date. List approximate date(s) that the version of the executable module(s), which will be created by the submitted program modules, was first used in an application environment.
4. Brief Description. Briefly describe the purpose of the computer program, state the problem being solved, and summarize the program functions and capabilities. This will be the primary field used for announcement purposes.
5. Method of Solution. Provide a short summary of the mathematical methods, engineering principles, numerical algorithms, and procedures incorporated into the software.
6. Computer(s) for Which Software Is Written. List the computer(s), i.e., IBM3033, VAX6220, VAX, IBM PC, on which this submittal package will run.
7. Operating System. Indicate the operating system used, release number, and any deviations or exceptions, i.e., is the operating system "off the shelf" with no modifications, or has the operating system been modified/customized. If modified, note modifications in field 11.

8. Programming Language(s) Used. Indicate the programming language(s) in which the software is written along with the approximate percentage (in parentheses) of each used. For example, FORTRAN IV (95%); Assembler (5%).
9. Software Limitations. Provide a short paragraph on any restrictions implied by storage allocation, such as the maximum number of energy groups and mesh points, as well as those due to approximations used, such as implied argument-range limitations. Also to be used to indicate the maximum number of users, etc. or other limitations.
10. Unique Features of the Software. Highlight the advantages, distinguishing features, or special capabilities which may influence the user to select this package over a number of similar packages.
11. Related and Auxiliary Software. If the software supersedes or is an extension of earlier software, identify the original software here. Identify any programs not considered an integral part of this software but used in conjunction with it (e.g., for preparing input data, plotting results, or coupled through use of external data files). Note similar library software, when known.
12. Other Programming or Operating Information or Restrictions. Indicate file naming conventions used, e.g., (filename).DOC (DOC is a filename extension normally used to indicate a documentation file), additional subroutines, function libraries, installation support software, or any special routines required for operation of this package other than the operating system and programming language requirements listed in other fields. If proprietary software is required, this should also be indicated.
13. Hardware Requirements. List hardware and installation environment requirements necessary for full utilization of the software. Include memory and RAM requirements, in addition to any nonstandard features.
14. Time Requirements. Include any timing requirement estimations, both wall clock and computer clock, necessary for the execution of the package. Give enough detail to enable the potential user to estimate the execution time for a given choice of program parameters (e.g., 5-10 min.).
15. References. List citations of pertinent publications. List (by author, title, report number, bar code or order number if available, and date). References are to be broken down into two groupings:
 - a. Reference documents that are provided with the submittal package.
 - b. Any additional background reference materials generally available.
16. Categorization and Keywords.
 - a. Subject Classification Code - Chosen from the Subject Classification Guide (Appendix E of ESTSC--I), this one-letter code designation is to be supplied by the submitter.
 - b. Keywords - Submitters should include keywords as taken from the ESTSC thesaurus listing (Appendix F of ESTSC--I). Keywords chosen that are not on the list will be subject to ESTSC approval before being added to the thesaurus. Subsequent revision lists will be available. ESTSC may also add additional keywords to aid in the indexing of the material.

Appendix C
BACKGROUND INTELLECTUAL PROPERTY

The Contractor and the Participant have identified and agreed that the following Background Intellectual Property may be used in the performance of work under this CRADA and may be needed to practice the results of this CRADA:

Contractor's Background Intellectual Property:

Participant's Background Intellectual Property:

The Contractor and the Participant represent that the above-identified Background Intellectual Property is available for licensing as of the effective date of this CRADA.

Each Party has used reasonable efforts to list all relevant Background Intellectual Property, but Intellectual Property may exist that is not identified. Neither Party shall be liable to the other Party because of failure to list Background Intellectual Property.