

MODEL ONLY

**LANL MODULAR CRADA
STEVENSON-WYDLER (15 USC 3710)
COOPERATIVE RESEARCH AND DEVELOPMENT AGREEMENT
(hereinafter "CRADA") No. LA _____**

**Title: " _____ "
between**

**Los Alamos National Security, LLC ("LANS")
as Operator of Los Alamos National Laboratory ("LANL")
under its U. S. Department of Energy Contract
No. DE-AC52-06NA25396
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/NNSA" means the Department of Energy, an agency of the Federal Government, which includes the National Nuclear Security Administration (NNSA), a semi-autonomous agency established within the DOE.
- C. "Contracting Officer" means the DOE or NNSA employee with the authority to administer LANS DOE/NNSA 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 LANS 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, 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.

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- 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.
- M. "Foreign Interest" (RESERVED)
- N. "Foreign Ownership, Control, or Influence (FOCI)" (RESERVED)

[Use Definitions M. and N. below when the need for a foreign ownership, control or influence (FOCI) review has been determined to exist and where Article X Export Control, has been appropriately modified.]

M. "Foreign Interest" is defined as any of the following:

- (1) A foreign government or foreign government agency;
- (2) Any form of business enterprise organized under the laws of any country other than the United States or its possessions;

Any form of business enterprise organized or incorporated under the laws of the United States, or a State or other jurisdiction within the United States, which is owned, controlled, or influenced by a foreign government, agency, firm, corporation or person; or

- (4) Any person who is not a U. S. citizen.

N. Foreign ownership, control, or influence (FOCI) means the situation where the degree of ownership, control, or influence over a participant by a foreign interest is such that a reasonable basis exists for concluding that compromise of classified information or special nuclear material, as defined in 10 CFR Part 710, may result.

ARTICLE II: STATEMENT OF WORK

Appendix A, Statement of Work, is an integral part of this CRADA.

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 or (2) the date on which it is approved by DOE/NNSA. The work to be performed under this CRADA shall be completed within _____ months/years from the effective date. The term of this CRADA may be extended by mutual, written agreement of the Parties. A copy of this time-only extension, signed by both Parties, shall be provided to DOE/NNSA by LANS.

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- B. The estimated contribution by the Participant and the Government for this cooperative research project shall be as set forth in Appendix A Section E. Term, Funding and Costs under this CRADA, subject to available funding.
- 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 Appendix A., Section E. Term, Funding and Costs, including any subsequent amendment.
- D. Each Party agrees to provide at least _____ () 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/NNSA policy.]

OR [FUNDS-IN ONLY]

- E. [The Participant shall provide LANS sufficient advance funds to maintain approximately a 90-day advance of funds during the entire period of work. No work will begin before the receipt of a cash advance. Failure of Participant to provide the necessary advance funding is cause for termination of the CRADA.]

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 LANS 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 LANS 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 LANS, the Participant indemnifies the Government and LANS 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 LANS shall be considered assignees or licensees of the Participant, as a result of reserved Government and LANS 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 LANS 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 LANS and/or the Government shall have provided all reasonably available information and reasonable

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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 LANS 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 _____ days as being Proprietary Information.
- C. Proprietary Information shall be returned to the provider thereof at the conclusion of this CRADA at the provider's expense.
- D. All information marked as Proprietary Information shall be protected by the recipient as Proprietary Information for a period of __ years from the effective date of this CRADA, unless, as shown by the recipient, such Proprietary Information becomes publicly known without the fault of the recipient, comes into recipient's possession from a third party without an obligation of confidentiality on the recipient, is independently developed by recipient's employees who did not have access to such Proprietary Information, is released by the disclosing Party to a third party without restriction, or is released for disclosure with the written consent of the disclosing Party.

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 written 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 five] 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/NNSA Contracting Officer to be provided to other DOE/NNSA facilities for use only at those DOE/NNSA facilities with the same protection in place;
 - (4) to existing or potential licensees, affiliates, customers, or suppliers of the Parties in support of commercialization of the technology with the same protection in place. Disclosure of the Participant's Protected CRADA Information under this subparagraph shall only be done with the Participant's consent; or
 - (5) as mutually agreed by the Parties in advance.

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- 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 agree that they shall have no obligations of nondisclosure or limitations on their use of, and the Government shall have unlimited rights in, all Generated Information produced and information provided by the Parties under this CRADA, except for (a) information which is marked as being Copyrighted (subject to Article XIII) or as Protected CRADA Information (subject to Article VIII B) or as Proprietary Information (subject to Article VII B), or (b) information that discloses an invention which may later be the subject of a U.S. or foreign Patent application.

ARTICLE X: EXPORT CONTROL

THE PARTIES UNDERSTAND THAT MATERIALS AND INFORMATION USED IN AND/OR RESULTING FROM THE PERFORMANCE OF THIS CRADA ARE SUBJECT TO EXPORT CONTROL LAWS AND THAT EACH PARTY IS RESPONSIBLE FOR ITS OWN COMPLIANCE WITH SUCH LAWS. FAILURE TO OBTAIN AN EXPORT CONTROL LICENSE OR OTHER AUTHORITY FROM THE U.S. GOVERNMENT MAY RESULT IN CRIMINAL LIABILITY UNDER THE U.S. LAWS.

ARTICLE X.1.: NOTIFICATION REGARDING CHANGE IN FOREIGN OWNERSHIP AND CONTROL

Participant agrees to notify LANS when the Participant becomes any of the following:

- (1) any form of business enterprise organized under the laws of any country other than the United States or its possessions; or
- (2) any form of business enterprise organized or incorporated under the laws of the United States, or a state or other jurisdiction within the United States, which is owned or controlled by a foreign government, agency, firm, corporation, or person.

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/NNSA (see Appendix A);
- (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.

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- B. The Parties acknowledge that LANS has the responsibility to provide the above information at the time of its completion to the DOE/NNSA Office of Scientific and Technical Information.
- C. The Participant agrees to provide the above information to LANS to enable full compliance with Paragraph B of this article.
- D. The Parties acknowledge that LANS and DOE/NNSA have a need to document the long-term economic benefit of the cooperative research under this CRADA. Therefore, the Participant shall respond to LANS' 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 _____ () 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. Each Party shall have the first option to assert copyright in works authored by its employees. Copyrights in works that are co-authored by employees of the Parties shall be held jointly, and use by either Party shall be without accounting. A Party electing not to assert copyright in a work authored by its employees agrees to assign such copyright to the other Party upon the request of, and at the expense of, the other Party.
- C. For Generated Information, the Parties acknowledge that the 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 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/NNSA'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. LANS and the Participant agree that, with respect to any Copyrighted computer software produced in the performance of this CRADA, DOE/NNSA has the right, at the end of the period set forth in paragraph B of Article VIII hereof and at the end of each two-year interval thereafter, to request LANS 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 LANS or the Participant or any

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assignee or exclusive licensee refuses such request, LANS and the Participant agree that DOE/NNSA has the right to grant the license if DOE/NNSA determines that LANS, 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/NNSA shall furnish LANS/Participant written notice of its intentions to require LANS/Participant to grant the stated license, and LANS/Participant shall be allowed thirty (30) days (or such longer period as may be authorized by the cognizant DOE/NNSA Contracting Officer for good cause shown in writing by LANS/Participant) after such notice to show cause why the license should not be required to be granted.

LANS/Participant shall have the right to appeal the decision by the DOE/NNSA 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. The Parties agree that LANS and Participant will disclose their respective Subject Inventions to the DOE/NNSA 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 United States. The Parties further agree to disclose to each other and DOE/NNSA 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/NNSA has granted the Participant and LANS the right to elect to retain title to their respective Subject Inventions, and wherein the Participant has the option to choose an exclusive license, for the reasonable compensation, for the pre-negotiated field of use to LANS' Subject Invention.

- A. For purposes of this article, "Inventing Party" means a Party whose employees conceived or first actually reduced to practice a Subject Invention. Each Inventing Party shall have the first option to elect to retain title to its Subject Invention(s) and that election shall be made: (1) for the electing Participant within twelve (12) months of disclosure of the Subject Invention to DOE/NNSA or (2) for LANS within the time period specified in its prime contract for electing to retain title to the Subject Invention. Title to Subject Inventions that are jointly made by employees of the Parties shall be jointly owned by the Parties. If an inventing Party elects not to retain title to its Subject Invention(s), then the other Party shall have the second option, during the term of this CRADA and for a period of Six (6) months after the termination of the first option, to request to obtain title to such

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Subject Invention(s) under this CRADA. DOE/NNSA shall take title to any Subject Invention that is not retained or obtained by any Party, and, where applicable, each non-electing Party shall assist DOE/NNSA in perfecting title to its Subject Invention(s). Each Inventing Party agrees to notify the other Party if it decides not to retain ownership of any Subject Invention(s). Such notification must occur at least ninety (90) days prior to the end of the one-year statutory period initiated by any publication, "on sale", or public use. If no Party elects title, then DOE/NNSA must be notified at least sixty (60) days prior to the end of that period.

- B. The Parties acknowledge that the DOE/NNSA 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

ARTICLE XV.1: SPECIAL LICENSE TERMS AND CONDITIONS

As noted in Article XV, the Participant has the option to choose an exclusive license, for reasonable compensation, for a pre-negotiated field of use to LANS' Subject Inventions. Accordingly, the Parties agree to enter into a separate Option Agreement with mutually agreed terms and conditions.

The Parties understand that rights in Intellectual Property generated under subcontracts for tasks under this CRADA are treated in accordance with the terms of the subcontracts. Accordingly, neither Party will enter into any subcontract for tasks under this CRADA without the prior written approval of the other Party.

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 Participant does not file such applications within one year after election, or if LANS does not file such applications within the filing time specified in its prime contract, the other Party to this CRADA exercising an option to elect to retain title 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.
- B. The Parties agree that DOE/NNSA 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/NNSA Contracting Officer within three (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.

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- 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 where permitted) 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 a title and retain the Patent rights in the United States or in any such foreign country.

ARTICLE XVII: TRADEMARKS

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 ownership and other rights relating to this trademark shall be as mutually agreed to in writing by the Parties. 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/NNSA 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.

ARTICLE XVIII: MASK WORKS

The Parties may seek to obtain legal protection for Mask Works fixed in semiconductor products generated under this agreement as provided by Chapter 9 of Title 17 of the United States Code. The rights to any Mask Work covered by this provision shall be as mutually agreed to in writing by the Parties. 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.

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 filed or registered by that Party. Government/DOE/ NNSA laboratory funds contributed as DOE/NNSA'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/NNSA, a nonproprietary report no more frequently than annually on efforts to utilize any Intellectual Property arising under the CRADA.

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ARTICLE XXI: DOE/NNSA MARCH-IN RIGHTS

The Parties acknowledge that the DOE/NNSA 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. LANS 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 LANS 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 LANS 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,

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insurrection, riot, sabotage, invasion, quarantine, restriction, transportation embargoes, or failures or delays in transportation.

ARTICLE XXV: ADMINISTRATION OF THE CRADA

LANS enters into this CRADA under the authority of its prime contract with DOE/NNSA. LANS 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 LANS to DOE/NNSA or its designee with notice of such transfer to the Participant, and LANS 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 LANS:
 - a. FORMAL NOTICES AND COMMUNICATIONS

<Technology Transfer Division Staff Member>
Telephone: <Phone Number>
Facsimile: <Phone Number>

For Fed. Ex., UPS, Freight:
Attn: [Specialist], MS C334
Los Alamos National Laboratory
Technology Transfer Division
TA-3, SM30 Bikini Atoll Road
DDP 001325, 01U
Los Alamos, NM 87545

For U.S. Mail Only:
Los Alamos National Laboratory
Technology Transfer Division
P.O. Box 1663, Mail Stop C334
Los Alamos, NM 87545

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b. TECHNICAL CONTACT, REPORTS, AND COPIES OF FORMAL NOTICES AND COMMUNICATIONS

<Principal Investigator>
Telephone: <Phone Number>
Facsimile: <Phone Number>

For Fed. Ex., UPS, Freight:
Los Alamos National Laboratory
<Group, Mail Stop>
TA-3 Bldg. SM-43, Room No. D37
Los Alamos, NM 87545

For U.S. Mail Only:
Los Alamos National Laboratory
P.O. Box 1663
<Group, Mail Stop <Mail Stop>
Los Alamos, NM 87545

2. For <Participant Industry Name>

a. FORMAL NOTICES AND COMMUNICATIONS

<Participant Business Contact Name>
Telephone: <Phone Number>
Facsimile: <Phone Number>

For Fed. Ex., UPS, Freight:
<Participant Company Name>
<Address>
<City, State, Zip>

For U.S. Mail Only:
<Participant Company Name>
<Address>
<City, State, Zip>

b. TECHNICAL CONTACT, REPORTS, AND COPIES OF FORMAL NOTICES AND COMMUNICATIONS

<Participant Technical Contact Name>
Telephone: <Phone Number>
Facsimile: <Phone Number>

For Fed. Ex., UPS, Freight:
<Participant Company Name>
<Address>
<City, State, Zip>

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For U.S. Mail Only:

<Participant Company Name>

<Address>

<City, State, Zip>

ARTICLE XXVIII: DISPUTES

In the event of any controversy or claim arising under this CRADA, the Parties shall attempt to resolve the dispute through good faith negotiations. If the dispute cannot be resolved within thirty (30) days, the Parties agree to submit the dispute to mediation by a trained, experienced mediator mutually selected by the Parties. The Parties agree to attempt to make such selection within thirty (30) days after the dispute arises (the DOE/NNSA Office of Disputes Resolution (GC-12) is available to assist with such selection).

The mediation shall commence within thirty (30) days of selection of the mediator and shall be held in a mutually convenient location. The mediator's role shall be to facilitate an agreement between the Parties, based on their mutual interests. In the event that the Parties are unable to reach a resolution in mediation and they wish the mediator to proffer a nonbinding evaluation or a binding resolution, they must jointly request it in writing. Should the Parties select a binding resolution by the mediator, the maximum dollar value of the award, whether in money, property, or services, must be agreed to by the Parties and approved by the cognizant DOE/NNSA Contracting Officer. The Parties agree to share the costs of mediation equally.

Neither Party will be prevented from resorting to a judicial proceeding if (1) good faith efforts to resolve the dispute have been unsuccessful or (2) interim relief from a court is necessary to prevent serious injury. 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 _____.

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, 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/NNSA.

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 LANS 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. The confidentiality, use and/or nondisclosure obligations of this CRADA shall survive any termination of this CRADA.

MODEL ONLY

I hereby represent that I have the requisite authority to sign this instrument on behalf of:

LOS ALAMOS NATIONAL SECURITY, LLC:

Signature: _____

Name: Michael R. Anastasio

Title: Director, Los Alamos National Laboratory

Date: _____

PARTICIPANT:

Signature: _____

Name: _____
(Typed or Printed)

Title: _____

Date: _____

APPENDIX A

STATEMENT OF WORK

A. NON-PROPRIETARY ABSTRACT

(Please provide a brief non-proprietary, non-sensitive description of work to be performed under this CRADA for reporting to OSTI. This should not exceed 800 characters)

B. PURPOSE

(A one or two sentence statement of project purpose.)

Reasons for Cooperation:

(Briefly describe each party's interests and strengths and how they are complementary with respect to developing the CRADA technology.)

C. SCOPE OF WORK

Technical Objective:

(Describe the technical goals of the project.)

Phases/Tasks of the Project, Duration, and Responsible Parties:

(Describe the phases/tasks of the project, if appropriate. Identify the individual tasks within each phase (if applicable) in table format. Subtasks may also be included. Subtasks should provide enough detail so that progress can be easily tracked. (See suggested table layout below.) The duration and responsible party for each task/subtask should be listed. In the section following the table, provide a discussion of the objective of the task and the deliverable that will be produced as a result of the task.)

Phase No.	Task No.	Task Name	Duration (Months)		Responsible Party
			(Start)	(Finish)	

Task Descriptions and Deliverables:

Task 1:

Discussion:

Deliverables:

Duration of Entire Project:

(Express, in months, the proposed length of the project from start to finish.)

D. PROPERTY

List any tangible property to be produced or purchased, who will pay for it and who will own it as requested under Article IV of the CRADA.

LANL:

Participant:

Note: If any materials or equipment will be transferred out from LANL to the Participant, a list of all equipment, identify piece, and identifying numbers (serial, etc.) must be identified in the Statement of Work. Steve Remde and Michael J. Shepherd of LANL SUP-2 need to be notified with a copy of the Statement of Work.

The CRADA Administrator's Property Representative (CAPR) for this CRADA is Michael J. Shepherd or his/her designee. Any questions concerning the government property provided, acquired, or used in the performance of this CRADA should be addressed to his/her attention at the following e-mail address and/or telephone number: disposition@lanl.gov / (505) 665-8063. In addition, the Property Representative is authorized to take any action necessary to comply with the Federal Property Management Regulations, DOE Property Management Regulations, the Albuquerque Property Management instructions, the LANL Property Management Manual and the terms of the CRADA regarding the appropriate acquisition, use, loss, replacement, transfer or return of government-furnished property/CRADA-acquired property.

E. TERM, FUNDING AND COSTS

The Participant's estimated contribution is \$ _____. The Government's estimated contribution, which is provided through LANS' contract with DOE/NNSA, is \$ _____, subject to available funding. The total value of this CRADA is estimated to be \$ _____.

OR

The Participant's estimated total contribution is \$ _____ and includes \$ _____ In-Kind and \$ _____ Funds-In and \$ _____ in Federal Administrative charges. The Government's estimated total contribution, which is provided through LANS' contract with DOE/NNSA is \$ _____, subject to available funding. The total value of this CRADA is estimated to be \$ _____.

**F. FUNDING TABLE (all \$ in K)
Base CRADA**

Funding	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Project Year 5	TOTALS
Government						
DOE/NNSA						
Other						
Total Govt.						
Participant						
In-Kind						
Funds-In						
FAC						
Total Participant						
TOTAL CRADA Value						

Amendment 1

FUNDING TABLE (All money in \$K):

Funding	Project Year 1	Project Year 2	Project Year 3	Project Year 4	Project Year 5	TOTALS
Government						
DOE/NNSA						
Other						
Total Govt.						
Participant						
In-Kind						
Funds-In						
FAC						
Total Participant						
TOTAL CRADA Value						

AMENDMENT FUNDING SUMMARY TABLE (All money in \$K):

CRADA Amend.	DOE NNSA Contrib	Other Govt. Contr.		Participant Funds-In	Participant In-Kind	Participant FAC	Subtotals
Original			Original				
Amend 1			Amend 1				
Amend 2			Amend 2				
Amend 3			Amend 3				
Amend 4			Amend 4				
Amend 5			Amend 5				
Cum. Government Totals			Cum. Participant Totals				

G. ESTIMATED TOTAL PROGRAM COST

(For use in multi-laboratory CRADAs and others as warranted.)

H. MANAGEMENT STRUCTURE

(For use in multi-laboratory CRADA and others as warranted.)

APPENDIX B

DESCRIPTION OF EXPANDED ABSTRACT OF COPYRIGHTED COMPUTER SOFTWARE

Energy Science and Technology Software Center

(Note: The abstract submittal requirement will be in accordance with the current requirements and guidelines of the Energy Science and Technology Software Center. The following is the current abstract format.)

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. 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 descriptions, but rather a string of keywords and phases. 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 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 requirements 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:

Reference documents that are provided with the submittal package.

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--1), 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--1). 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 materials.

*c) **EDB Subject Categories** - Energy-related categories (6 digit) to be assigned by ESTSC per the Energy Science and Technology Database (EDB) schema for a further breakdown of subject area.

*17. **Sponsor.** This field, input by ESTSC from information provided on the Primary Submittal Form, represents the program office or division responsible for funding the software.

*18. **Material Available.** This field, input by ESTSC, is taken from information provided on the submittal forms. It will be composed of:

a) Contents of the package available for distribution.

b) Computer media quantity.

*19. **Status.** This field, input by ESTSC for submittals other than from SIACs, consist of a dialog of information concerning: when the package was announced; subsequent versions and dates; what level of testing has been performed at NESC, SIACs, or ESTSC, etc.

Note: The areas above indicated by asterisk (*) are data elements that will be determined by ESTSC, consisting of data extracted from other information provided within the submittal package.

APPENDIX C

BACKGROUND INTELLECTUAL PROPERTY (BIP)

Relevant BIP to this CRADA includes but is not limited to the following listing, is subject to change, and includes Intellectual Property developed or owned by LANS at the Los Alamos National Laboratory and Intellectual Property developed or owned by the CRADA Participant. The LANL BIP listed below does not guarantee either an implied or an express license or option for the CRADA Participants. Licensing of BIP, if agreed to by the Participants, shall be the subject of separate licensing agreements between LANS and CRADA Participant. CRADA Participants are cautioned that rights to the BIP may be limited by existing encumbrances.

LANL:

LANL's final BIP review from the IPM/BIP Team is entered here.

PARTICIPANT:

If the CRADA Participant wishes to identify any BIP it should be listed here.

APPENDIX D

NET BENEFIT

If the Participant is unable to meet the requirements of A and B of Article XXII U.S. Competitiveness, the Participant must provide an explanation of the net benefit to the U.S. economy as an Appendix D to the CRADA. If Participant is able to meet the requirements of A and B, Appendix D is deleted.