

MODULAR8 CRADA
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Sample

STEVENSON-WYDLER (15 USC 3710)
COOPERATIVE RESEARCH AND DEVELOPMENT
AGREEMENT (hereinafter "CRADA") NO. CRADA00 _____

BETWEEN

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA
ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY

under its U. S. Department of Energy Contract
No. DE-AC02-05CH11231 (hereinafter "The Regents")

AND

_____ (hereinafter "Participant")

both being hereinafter jointly referred to as the "Parties"

ARTICLE I. DEFINITIONS

- A. "Government" means the United States of America and agencies thereof.
- B. "DOE" means the Department of Energy, an agency of the United States of America.
- C. "Contracting Officer" means the DOE employee administering The Regents' 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 USC 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 Regents 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 other 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 D, Background Intellectual Property, which were in existence prior to or are 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.

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 Regents. The work to be performed under this CRADA shall be completed within _____ months/years from the effective date.
- B. The Participant's estimated contribution is \$ _____, which includes \$ _____ in-kind and \$ _____ funds-in. The Government's estimated contribution, which is provided through The Regents' contract with DOE, is \$ _____, 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 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. Sufficient advance funds shall be obtained to maintain approximately a 90-day advance of funds during the entire period of work covered by the funds provided by the Participant under the CRADA. 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 this CRADA.

F. The Participant shall pay the Contractor the following advance payment: (Full Advance)

1. **Advance Payment.** The Participant shall advance the following amount at the time shown:

<u>Amount Due</u>	<u>Date Due</u>
\$ _____.	prior to start

This is a full advance for the estimated cost.

All advance payments must be made in US dollars. For foreign wire transfers, please add \$30 to the invoice amount to cover payment charges levied by the Participant's banking institution.

2. **Monthly Expense Statements.**

When work commences, monthly expense statements showing actual costs incurred for the month and the balance remaining in the account are mailed to the Participant for information only. The expense statements are not requests for payment.

If the estimated cost is increased during the project or the project is expected to be renewed, an additional advance may be requested of the Participant. Contractor is not obligated to continue the work unless it is holding an adequate advance.

Upon completion of the project there will be a reconciliation of the total costs incurred to total payments received and a final expense statement along with any remaining advance will be returned to the Participant.

3. Expense statements shall be sent to: (this information is mandatory)

Participant Reference No. if applicable _____

Contact Name _____

Street Address _____

City, State, Zip Code _____

Country _____

Telephone with area code _____

Email: _____

Tax ID Number (TIN) _____

ARTICLE IV. PERSONAL PROPERTY

Participant shall have title to any tangible personal property the Contractor produces or acquires using solely the Participant's funds under this CRADA whose cost is greater than \$5,000 (unless identified otherwise in Appendix A). The Government shall have title to all other tangible personal property produced or acquired by the Contractor.

ARTICLE V. DISCLAIMER

THE GOVERNMENT, THE PARTICIPANT, AND THE REGENTS 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 REGENTS 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

The Participant indemnifies the Government and The Regents 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 Regents shall be considered assignees or licensees of the Participant, as a result of reserved Government and The Regents 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 Regents 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 Regents 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 The Regents 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 USC 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 30 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 information marked as Proprietary Information shall be protected by the recipient as Proprietary Information for a period of 3 years from the effective date of this CRADA, unless, as shown by the recipient, such Proprietary Information shall become publicly known without the fault of the recipient, shall come into recipient's possession from a third party without an obligation of confidentiality on the recipient, shall be 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.
- E. In no case shall The Regents provide Proprietary Information of the Participant to any person or entity for commercial purposes, unless otherwise agreed to in writing by said Participant.

ARTICLE VIII. OBLIGATIONS AS TO PROTECTED CRADA INFORMATION

- A. Each Party may designate as Protected CRADA Information, which meets the definition of Article I.F. any Generated Information produced by its employees, and with the agreement of the other Party, 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, 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) 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 Participant's Protected CRADA Information under this subparagraph shall only be done with Participant's consent; or
 - (5) 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 agree that they shall have no obligations of non-disclosure 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 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.

Participant acknowledges that The Regents has many foreign employees and students. The Participant agrees that The Regents will conduct this project as fundamental research with no restrictions on publication. Accordingly, The Regents does not intend to mark any of its Generated Information as Protected CRADA Information and the Participant agrees not to direct The Regents to create export controlled information and not to transfer to Principal Investigator or to other employees or students of The Regents any Proprietary Information or Protected CRADA Information that is export controlled under the Export Administration Regulations or the International Traffic in Arms Regulations.

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) an annual signed financial report of the Participant's in-kind contributions to the project;
- (5) other topical/periodic reports where the nature of research and magnitude of dollars justify; and
- (6) computer software in source and executable object code format as defined within the Statement of Work or elsewhere within the CRADA documentation.

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 Regents has the responsibility to provide the above information at the time of its completion to the DOE Office of Scientific and Technical Information.

C. Participant agrees to provide the above information to The Regents to enable full compliance with Paragraph B. of this Article.

D. The Parties acknowledge that The Regents and the DOE have a need to document the long-term economic benefit of the cooperative research being done under this CRADA. Therefore, the Participant shall respond to The Regents' reasonable requests, during the term of this CRADA and for a period of three years 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 any 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 Copyrights in works authored by its employees. The Parties shall have an undivided half interest in copyrights in jointly developed works without obligation to account to the other Party. If either Party decides not to retain ownership of copyright in a work created by its employee(s), that Party agrees to assign such copyright to the other Party, at the other Party's request. Participant agrees to notify The Regents if it decides not to retain ownership of copyright in any work created by its employee(s); The Regents agrees to notify DOE if Participant or The Regents decide not to retain ownership of copyright in any work created by its employee(s). The Parties agree to assign to DOE, upon request, copyrights not retained by either Party.
- C. For Generated Information, the Parties acknowledge that the Government has for itself and others acting on its behalf, a royalty-free, non-transferable, non-exclusive, 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'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 subparagraph C. of this Article.

- E. The Regents 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 two-year interval thereafter, to request The Regents and the Participant and any assignee or exclusive licensee of the Copyrighted software to grant a non-exclusive, 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 Regents or the Participant or any assignee or exclusive licensee refuses such request, The Regents and the Participant agree that DOE has the right to grant the license if DOE determines that The Regents, 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 Regents/Participant written notice of its intentions to require The Regents/Participant to grant the stated license, and The Regents/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 Regents/Participant) after such notice to show cause why the license should not be required to be granted.

The Regents/Participant shall have the right to appeal the decision by the 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. The Parties agree that The Regents and Participant will disclose their respective Subject Inventions to the DOE 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 country. 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 USC 205.

ARTICLE XV. TITLE TO INVENTIONS

Wherein DOE has granted the Participant and The Regents the right to elect to retain title to their own 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 Regent's Subject Inventions,

- A. Subject Invention(s) conceived or reduced to practice solely by the employees of one Party shall be the property of that Party. Subject Invention(s) conceived or reduced to practice by employees of both Parties jointly shall be the joint property of both Parties, each having an undivided one half (1/2) interest. Each Party's undivided interest shall be available for use and licensing without obligation to account to the other party.

Title to Subject Invention(s) shall be obtained by means of an election to retain title from the Department of Energy. Each Party shall have the first option to elect to retain title to any Subject Invention made by its employees and said election shall be made: (1) for the Participant within 12 months of disclosure of the Subject Invention to DOE or (2) for The Regents within the time period specified in its prime contract for electing to retain title to Subject Inventions. If a Party elects not to retain title to any Subject Invention of its employees, then the other Party shall have the second option to elect to retain title thereto from DOE.

The Participant acknowledges that the Contractor has offered to the Participant the option to choose an exclusive license for a pre-negotiated field of use for reasonable compensation for any Subject Invention made in whole or in part by a Contractor employee.

- 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 non-exclusive, non-transferable, 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.

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 The Regents does not file such applications within the filing time specified in its prime contract, 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.

- 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 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.
- 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 the 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 the 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

The Parties may seek to obtain Trademark/Service Mark protection on products or services generated under this agreement in the United States or foreign countries. The Party originating the Trademark/Service Mark on products or services generated under this CRADA in the United States or foreign countries, shall have right, title and interest in such Trademark or Service Mark subject only to the Government's retained right to use the mark on any similar goods or services as set forth below. 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.

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. Allocation of rights to Mask Works will be commensurate with the distribution of copyrights under Article XIII, Paragraph B of this CRADA. The Parties hereby acknowledge that the Government or others acting on its behalf shall retain a non-exclusive, 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 solely owned by that Party. Government/DOE laboratory funds contributed as DOE's cost share to a CRADA cannot be given to Participant for payment of Participant's costs of filing and maintaining patents or filing for Copyrights, Trademarks and Mask Works.

ARTICLE XX. REPORTS OF INTELLECTUAL PROPERTY USE

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

ARTICLE XXI. DOE MARCH-IN RIGHTS

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

OR USE Optional Paragraph A below:

- A. A plan for providing net benefit to the U.S. economy is attached in Appendix ____.

(Note to Contracting Officers: The following Paragraph B is used no matter which Paragraph A option is used.)

- B. The Regents 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 purposes.

- 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.
- D. LBNL will provide access to its facilities in accordance with LBNL Site Access Policy, Regulations and Procedure Manual, RPM 1.06 (summarized in Appendix C). Full responsibility for the conduct and safety of Participant's personnel at The Regents' sites during the performance of the CRADA Work shall be and remain with Participant. Participant shall maintain Workers' Compensation Insurance at levels sufficient to cover its obligations under this CRADA. While at The Regents' sites, the Participant's personnel are responsible for and shall take all reasonable precautions in the performance of their work under this CRADA to protect the environment and the safety of employees and members of the public and shall comply with all applicable environmental health and safety regulations and requirements of LBNL. In accordance with Chapter 24, "Environmental Health and Safety Training", of LBNL's Publication 3000, "Health and Safety Manual", environmental health and safety orientation and training shall be obtained by Participant's personnel at the earliest possible time upon arrival at The Regents' site and in all cases before they work unsupervised or are exposed to any special hazards.

ARTICLE XXIV. FORCE MAJEURE

No failure or omission by The Regents or 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 Regents or 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 Regents enters into this CRADA under the authority of its prime contract with DOE. The Regents 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 Regents to DOE or its designee with notice of such transfer to the Participant, and The Regents shall have no further responsibilities except for the confidentiality, use and/or nondisclosure obligations of this CRADA.

ARTICLE XXVI. RECORDS & 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:

For The Regents:

For the Participant:

ARTICLE XXVIII. DISPUTES

At the request of either Party, after reasonable attempt to settle without arbitration, any controversy or claim arising out of or relating to the CRADA shall be settled by arbitration conducted in the State of California in accordance with the then current and applicable rules of the American Arbitration Association. Judgment upon the award rendered by the Arbitrator (s) shall be nonbinding on the Parties.

ARTICLE XXIX. ENTIRE CRADA AND MODIFICATIONS

- A. It is expressly understood and agreed that this CRADA with its Appendices; which are attached hereto and incorporated herein by reference, contains the entire agreement between the Parties with respect to the subject matter hereof and that 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 Appendices shall be valid only if the change is made in writing, executed by the Parties hereto, and approved by DOE.
- C. The Appendices to this CRADA are Appendix A - Statement of Work, Appendix B - Description of Expanded Abstract of Copyrighted Computer Software, Appendix C - LBNL Site Access Policy, and Appendix D - Background Intellectual Property.

ARTICLE XXX. TERMINATION

This CRADA may be terminated by either Party upon 60 days written notice to the other party. This CRADA may also be terminated by The Regents in the event of failure by the Participant to provide the necessary advance funding or to promptly pay the invoices rendered by The Regents is cause for termination of the CRADA 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 non-disclosure obligations of this CRADA shall survive any termination of this CRADA.

**FOR THE REGENTS OF THE
UNIVERSITY OF CALIFORNIA,
ERNEST ORLANDO LAWRENCE
BERKELEY NATIONAL
LABORATORY**

FOR PARTICIPANT

By: _____

By: _____

Name: Jeff Weiner
Manger, Sponsored Projects

Name: _____

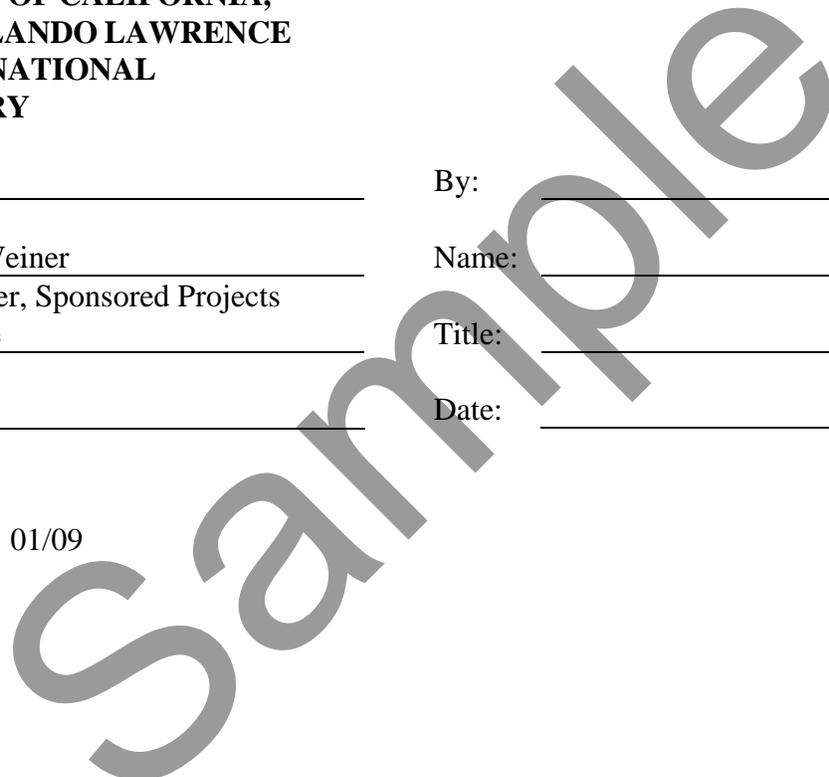
Title: Office

Title: _____

Date: _____

Date: _____

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APPENDIX A - STATEMENT OF WORK

[PROJECT TITLE]

BACKGROUND

[Provide summary background information addressing previous work by LBNL or the Participant in this research area and previous interactions, if any]

EXPECTED ACCOMPLISHMENTS AND GOALS

[Describe what products the Participant might be manufacturing or commercializing as a result of the efforts under this CRADA. { If no products can be identified, then state so.}]

TECHNICAL OBJECTIVES

[Provide an explanation of the means of achieving the result/product(s).]

TASKS, RESPONSIBILITIES, AND SCHEDULE

[Summarize the tasks, noting which party is responsible for each task. Explain the relationship between phases, including timing if relevant. Provide a schedule of work in terms of the time needed to complete each milestone and/or phase. You may use the table below, modified for months or quarters as needed..]

Task/Milestone	Work Done by:		Completion, Quarters After Start of Project															
	LBN L	[Part]	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16

DELIVERABLES

[List the items (reports, prototypes, etc.) to be delivered for each phase or task. Give due dates in terms of months from project start and note which party is responsible for each deliverable]

TOTAL FUNDING SUMMARY

[Insert section A.5., Funding Table, from the JWS.]

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 descriptions, but rather 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 shortage 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:
 - a. Reference documents that are provided with the submittal package.
 - b. Any additional background reference material 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 - LBNL SITE ACCESS

The following materials are excerpted from the LBNL Regulations and Procedures Manual (RPM) Section 1.06 LBNL Site Access. Questions may be addressed to the Reception Center at (510)486-6155.

A. Site Access Policy

1. Site access is a privilege granted in accordance with LBNL policy and procedures to individuals who do not have regular-employee status and may be withdrawn at any time. Access privileges granted to any guest pursuant to this Site Access Policy do NOT confer The Regents' LBNL employee status nor any benefits attendant thereto.
2. Participant's representatives, those professionals and their associates engaged in LBNL-approved research, are considered "participating guests".

B. Procedures

1. Before a participating guest will be allowed access, the guest must present the following to the Pass Office for approval;
 - a. Proof of either Worker's Compensation Coverage through his/her regular employer, or evidence of other adequate insurance coverage,
 - b. Completed Participating Guest Information Sheet (PGI),
 - c. Executed CRADA,
 - d. Completed Medical Information for Participating Guests (Form 7600-63177).

In addition, foreign nationals must present their passports when reporting to the Pass Office.

2. A Guest Identification Card will be issued after the above forms have been approved by the Pass Office. The card can be renewed by the Pass Office.

Parking permits may be obtained from the Pass Office for the approved period of the guest visit and must be returned to that office upon termination of guest status.

APPENDIX D - BACKGROUND INTELLECTUAL PROPERTY

Each Party may use the other Party's Background Intellectual Property identified hereunder solely in performance of research under the Statement of Work. This CRADA does not grant to either Party any option, grant, or license to commercialize, or otherwise use the other Party's 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.

The Regents Background Intellectual Property: _____

Participant's Background Intellectual Property: _____

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.

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