

STEVENSON-WYDLER (15 USC 3710)
COOPERATIVE RESEARCH AND DEVELOPMENT
AGREEMENT (hereinafter "CRADA")

BETWEEN

UChicago Argonne, LLC
as Operator of Argonne National Laboratory
under its U. S. Department of Energy Contract
No. DE-AC02-06CH11357 (hereinafter "Contractor"),

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 Contractor's DOE Contract.
- D. "Generated Information" means information produced in the performance of this CRADA.
- E. "Proprietary Information" means information which is developed at private expense outside of this CRADA, is marked as Proprietary Information; and 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)].
- F. "Protected CRADA Information" means Generated Information which is marked as being Protected CRADA Information by a Party to this CRADA and which would have been Proprietary Information had it been obtained from a non-federal entity.
- G. "Subject Invention" means any invention of the Contractor or Participant conceived or first actually reduced to practice in the performance of work under this CRADA.
- H. "Intellectual Property" means patents, trademarks, copyrights, and mask works 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. "Servicemark" 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. (17 USC 901(a)(2))

Article II. Statement of Work

The statement of work is attached as Appendix A.

Article III. - Funding & Costs

- A. The Participant's estimated contribution is _____. The Government's estimated contribution, which is provided through the Contractor's contract with DOE, is \$_____, subject to available funding. The estimated contribution of the Participant and the Government will be funded annually in accordance with the funding profile set forth in Appendix A. No funds will be transferred between the Parties under this CRADA.
- B. Neither Party shall have an obligation to continue or complete performance of its work at a cost in excess of its estimated cost in III. A. above, including any subsequent amendment.
- C. Each Party agrees to provide thirty (30) days advance notice to the other Party or as soon as practicable if the actual cost to complete performance will exceed its estimated cost. If the Parties mutually agree to continue the project, the estimated cost shall be appropriately amended and the Parties shall agree on the share of each Party of such increase in estimated cost by duly executed amendments to this 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, if any, is identified in Appendix A, Statement of Work. Personal property shall be disposed of as directed by the owner at the owner's expense. All jointly funded property shall be owned by the Government.

Article V. - Disclaimer

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

Article VI. - Product Liability

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

Article VII. - Obligations as to Proprietary Information

- A. Each Party agrees to not disclose Proprietary Information provided by another Party to anyone other than the CRADA Participant and Contractor without written approval of the providing Party, except to Government employees who are subject to the statutory provisions against disclosure of confidential information set forth in the Trade Secrets Act (18 U.S.C. 1905).
- B. If Proprietary Information is orally disclosed to a Party, it shall be identified as such, at the time of disclosure and confirmed in a written summary thereof, appropriately marked by the disclosing Party, within ten (10) days as being Proprietary Information.
- C. All Proprietary Information shall be returned to the provider thereof at the conclusion of this CRADA at the provider's expense.

- D. All information marked as Proprietary Information shall be protected by the recipient as Proprietary Information for a period of five (5) 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.
- E. Proprietary Information disclosed under this CRADA will be used by the recipient only for the purposes of this CRADA.

Article VIII. - Obligations as to Protected CRADA Information

- A. Each Party may designate and mark as Protected CRADA Information (1) any Generated Information produced by its employees which meets the definition of Protected CRADA Information in Article I, and (2) with the agreement of the other Party, any Generated Information produced by the other Party's employees which meets the definition of Protected CRADA Information in Article I. All such designated Protected CRADA Information shall be appropriately marked.
- B. For a period of five (5) years from the date Protected CRADA Information is produced, pursuant to 15 USC 3710 a(c)(7)(B), Parties agree not to further disclose such Information and to use the same degree of care and discretion, but no less than reasonable care and discretion, to avoid disclosure, publication or dissemination of such Information to a third party, as the Party employs for similar protection of its own information which it does not desire to disclose, publish or disseminate except:
 - 1. as necessary to perform this CRADA; or
 - 2. as provided in Article XI (Reports and Abstracts); or
 - 3. as requested by the DOE Contracting Officer to be provided to other DOE facilities for use only at those DOE facilities with the same protection in place;
 - 4. as necessary for the licensing of Intellectual Property developed under this CRADA, provided similar provisions for nondisclosure are included in such licensing; or
 - 5. as mutually agreed by the Parties in advance.
- C. The obligations of (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 (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 D), 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.

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. a final report, upon completion or termination of this CRADA, to include a list of subject inventions with appropriate restrictions marked for the protection of data;
 3. computer software in source and executable object code format as defined within the Statement of Work or elsewhere within the CRADA documentation.
- B. The Parties acknowledge that the Contractor has the responsibility to provide the above information at the time of its completion to the DOE Office of Scientific and Technical Information.
- C. Participant agrees to provide the above information to the Contractor to enable full compliance with paragraph B. of this Article.

Article XII. - Pre-Publication Review

- A. Each Party agrees to secure pre-publication approval for Generated Information from the other Party to this CRADA which shall not be unreasonably withheld or delayed beyond thirty (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 Government has agreed that 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 has the right to assert copyright in its associated copyrightable work produced in the performance of this CRADA.
- C. For Generated Information, the Parties acknowledge that the Government has for itself and others acting on its behalf, a royalty-free, non-transferable, 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, and 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 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 Contractor and 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 Contractor and the Participant and any assignee or exclusive licensee of the copyrighted software to grant a nonexclusive, partially exclusive, or exclusive license to a responsible applicant upon terms that are reasonable under the circumstances, provided such grant does not cause a termination of any licensee's right to use the copyrighted computer software. If the Contractor or the Participant or any assignee or exclusive licensee refuses such request, the Contractor and the Participant agree that DOE has the right to grant the license if DOE determines that the Contractor, the Participant, assignee, or licensee has not made a satisfactory demonstration that it is actively pursuing commercialization of the copyrighted computer software.

Before requiring licensing under this paragraph E, DOE shall furnish the Contractor/Participant written notice of its intentions to require the Contractor/Participant to grant the stated license, and the Contractor/Participant shall be allowed 30 days (or such

longer period as may be authorized by the cognizant DOE Contracting Officer for good cause shown in writing by the Contractor/Participant) after such notice to show cause why the license should not be required to be granted.

The Contractor/Participant shall have the right to appeal the decision by 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 promptly disclose to each other each and every Subject Invention, which may be patentable or otherwise protectable under the Patent Act. The Parties acknowledge that the Contractor 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. The disclosure shall be in the form of a written report and shall identify this CRADA and the inventors. The disclosure 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 subsequent 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 Subject Inventions

- A. Whereas the DOE has granted rights to inventions under this CRADA, each Party has the right to elect to retain title to any Subject Invention made by its employees. Participant shall elect in writing to the DOE whether or not to retain title to any such Subject Invention of its employees within 12 months of disclosure but not later than 60 days prior to the time when any statutory bar might foreclose filing of a U. S. application. Contractor shall follow the election requirements and filing procedures established under its contract with DOE, contract No. DE-AC02-06CH11357. The DOE shall retain title to any Subject Invention which is not retained by Participant and may acquire title to any Subject Invention which is not retained by Contractor.

- B. The Parties acknowledge that the DOE may obtain title to each Subject Invention reported under Article XIV for which a patent application or applications are not filed pursuant to Article XVI and for which any issued patents are not maintained by any Party to this CRADA.
- C. The Parties acknowledge that the Government retains a nonexclusive, nontransferable, irrevocable, paid-up license to practice or to have practiced for or on behalf of the United States every Subject Invention under this CRADA throughout the world. The Parties agree to execute a confirmatory license to affirm the Government's retained license. (15 U.S.C. 3710a (b)&(3) and (35 U.S.C. 202 (c) (4)).
- D. The Participant shall have sixty (60) days from receipt of the written disclosure pursuant to Article XIV of each Subject Invention of Contractor to notify the Contractor in writing of an intent by the Participant to acquire an exclusive license for reasonable compensation in a defined field of use.
- E. The Participant shall retain a non-exclusive, royalty-free license throughout the world in each Subject Invention of the Participant's employees to which the Government obtains title. The Participant's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Participant is a part and includes the right to grant sublicenses of the same scope to the extent that the Participant was legally obligated to do so at the time this CRADA was awarded. The license is transferable only with the approval of the DOE, except when transferred to the successor of that part of the Participant's business to which the invention pertains.

Article XVI. - Filing Patent Applications

- A. The Participant shall file its United States patent application on a Participant elected Subject Invention within 1 year after election or, if earlier, at least 60 days prior to the end of any statutory period wherein valid patent protection can be obtained in the United States after a publication, on sale, or public use. Contractor shall file on a Contractor elected Subject Invention in accordance with the terms of its contract DE-AC02-06CH11357 with DOE. The Parties shall agree among themselves as to who will file patent applications on any joint Subject Inventions.
- B. The Participant agrees that if it does not desire to file a United States patent application for any Subject Invention, notification of such negative intent shall promptly be made in writing to the DOE within the period for filing but not later than 60 days prior to the time when any statutory bar might foreclose filing of a United States 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

Article XVII. - Trademarks

The Government has agreed that the Parties may seek to obtain Trademark/Service mark protection on products or services generated under this CRADA in the United States or foreign countries. The Parties hereby acknowledge that the Government shall have the right to indicate on any similar goods or services produced by or for the Government that such goods or services were derived from and are a DOE version of the goods or services protected by such Trademark/Service mark with the Trademark/Service mark 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 Government has agreed that the Parties may seek to obtain legal protection for Mask Works fixed in semiconductor products generated under this CRADA as provided by Chapter 9 of Title 17 of the United States Code. Each Party has the right to its Mask Works generated under this CRADA. Parties acknowledge that the Government or others acting in 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 Works 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 filing, Trademark/Service mark 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 owned by that Party.

Article XX. - Reports of Intellectual Property Use

The Participant agrees to submit, for a period of five (5) years from the date of termination or completion of this CRADA and upon request of DOE, a nonproprietary report no more frequently than annually on efforts to utilize any Intellectual Property arising under the CRADA.

Article XXI. - DOE March-In Rights

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

Article XXII. - U. S. Competitiveness

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

In exchange for the benefits received under this CRADA, the Parties therefore agree to the following:

- A. Participant agrees that products embodying Intellectual Property developed under this CRADA shall be substantially manufactured in the United States.
- B. Participant also agrees that 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 U.S., shall not result in reduction of the use of the same processes, services, or improvements in the United States.
- C. Contractor agrees that any assignment or licensing of rights to Intellectual Property arising from the performance of this CRADA to Participant shall be in accordance with the terms of paragraphs A. and B. of this Article.

Article XXIII. - Assignment of Personnel

- A. It is contemplated that 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 (whether employees or agents) 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 all costs and expenses which it incurs with regard to its personnel assigned under this CRADA, including but not limited to the costs of reimbursing such personnel for travel and other living expenses and/or payment for salaries, insurance, and allowances. In no event shall the receiving Party be liable for such payments, costs or expenses. The receiving Party shall bear the costs of providing reasonable use of related facilities and work spaces as necessary in the execution of this CRADA.

- D. Each Party agrees to use due care while on the other's premises, to comply with all posted environmental safety and health rules and regulations during its visit, and to enter only those areas previously designated by those in charge of its visit.

Article XXIV. - Force Majeure

No failure or omission by Contractor or by 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 Contractor or Participant as the case may be, 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

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

Article XXVI. - Records and Accounting for Government Property

- A. The Participant shall maintain records of the following with respect to all Government property in its custody, related to the CRADA: receipts, expenditures, and dispositions. Participant represents that its accounting system is in accordance with generally accepted accounting principles.
- B. The Participant shall, with reasonable notice, grant to the Government and to the Contractor periodic access to Participant's premises during regular business hours for the purposes of inspection of CRADA-related Government property in its custody.

Article XXVII. - Notices

- A. Any communications required by this CRADA 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 this CRADA number.

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

Argonne National Laboratory
9700 South Cass Avenue
Lemont, IL 60439
Attention: Marlene Frances Nowotarski
Phone: (630)252-7043
Fax: (630)252-4517
E-mail: nova@anl.gov

COMPANY NAME
ADDRESS
Attention: _____
Phone: _____
Fax: _____
E-mail: _____

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 a reasonable time, the Parties agree to submit the dispute to mediation by a trained, experienced mediator mutually selected by the Parties.

The mediation shall commence after selection of a 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 non-binding 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 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 Illinois

Article XXIX. - Entire CRADA and Modification

A. It is expressly understood and agreed that this CRADA with its Appendices 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.

Article XXX. - Term and Termination

- A. The date of execution of this CRADA shall be the date on which it is signed by the last of the Parties hereto. The term of this CRADA shall continue for a period of _____ months after date of execution unless extended by the mutual agreement of the Parties, with the approval of DOE, or terminated in accordance with the provisions that follow.
- B. This CRADA may be terminated by either Party upon thirty (30) days written notice to the other Party. 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.

(See Next Page for Signature Blocks.)

UCHICAGO ARGONNE, LLC
AS OPERATOR OF ARGONNE NATIONAL LABORATORY:

By: _____

Marlene Frances Nowotarski

Title: _____

Assistant Contract Specialist

Dated: _____

COMPANY NAME:

By: _____

Title: _____

Dated: _____

DOE APPROVAL:

By: _____

Title: _____

Dated: _____