

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		<b>1. CONTRACT ID CODE</b>	<b>PAGE OF PAGES</b> 1   8
<b>2. AMENDMENT/MODIFICATION NO.</b> M158	<b>3. EFFECTIVE DATE</b> See Block 16C	<b>4. REQUISITION/PURCHASE REQ. NO.</b> WPAS-NOPR	<b>5. PROJECT NO. (If applicable)</b>
<b>6. ISSUED BY</b> U.S. Department of Energy Oak Ridge Office Procurement and Contracts Division ATTN: Mark A. Millon P.O. Box 2001 Oak Ridge, TN 37831-8758	<b>CODE</b>	<b>7. ADMINISTERED BY (If other than Item 6)</b>	<b>CODE</b>
<b>8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)</b>  UT-Battelle, LLC Attn: Michael J. Fietze, Director Prime Contract Administration Post Office Box 2008 Oak Ridge, TN 37831-6231		<input type="checkbox"/>	<b>9A. AMENDMENT OF SOLICITATION NO.</b>
		<input type="checkbox"/>	<b>9B. DATED (SEE ITEM 11)</b>
		<input checked="" type="checkbox"/>	<b>10A. MODIFICATION OF CONTRACT/ORDER NO.</b>  DE-AC05-00OR22725
<b>CODE</b>		<b>10B. DATED (SEE ITEM 13)</b> October 18, 1999	
<b>FACILITY CODE</b>			

**11. THIS ITEM APPLIES TO AMENDMENTS OF SOLICITATIONS**

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers  is extended,  is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning \_\_\_\_\_ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

**12. ACCOUNTING AND APPROPRIATION DATA (If required)**

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

<b>CHECK ONE</b>	<b>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority)</b> THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT/ORDER NO. IN ITEM 10A.
<input type="checkbox"/>	
<input type="checkbox"/>	<b>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as change in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</b>
<input type="checkbox"/>	<b>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</b>
<input checked="" type="checkbox"/>	<b>D. OTHER (Specify type of modification and authority)</b> Clause H-46, Mutual Agreement and P.L. 95-91

**E. IMPORTANT: Contractor**  is not,  is required to sign this document and return 2 copies to the issuing office.

**14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)**

The purpose of this modification is to revise clause H-46, Other Patent Related Matters, to 1) enable the contractor to elect a total of ten subject inventions for commercialization in the Privately Funded Technology Transfer (PFTT) program that were previously outside the contractually agreed window for election of Government funded inventions into the PFTT program, 2) change the time periods for the first two financial commitment periods, 3) increase by ten percent the Government share of net income from royalties generated by licensing of the ten subject inventions, 4) reflects the reimbursement by the contractor to the Government of costs associated with the ten subject inventions, and 5) changes the "Contract Year" commitments and associated reporting to a fiscal year basis.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

<b>15A. NAME AND TITLE OF SIGNER (Type or print)</b> Greg L. Turner Chief Financial Officer		<b>16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)</b> Mark A. Millon Contracting Officer	
<b>15B. CONTRACT/OFFEROR</b>	<b>16C. DATE SIGNED</b>	<b>16B. UNITED STATES OF AMERICA</b>	<b>16C. DATE SIGNED</b>
BY <u>Greg L. Turner</u> (Signature of person authorized to sign)	4/11/07	BY <u>Mark A. Millon</u> (Signature of Contracting Officer)	4/13/07

**H-46 Other Patent Related Matters****(a) Contractor's Commitment**

For the Contractor's privately-funded technology transfer (PFTT) effort during the 5-year option term of this Contract, the Contractor shall commit to at least \$3,500,000 of private monies for expenses including those related to patenting, marketing, licensing, and development of Subject Inventions and shall file a minimum of twenty-five (25) patent applications during the 5-year option period and prior to the contract expiration date of March 31, 2010. Included as a part of the \$3,500,000 private monies commitment and the 25 patent application commitment, the Contractor further agrees to the following minimum commitments for the first two PFTT Time Periods:

PFTT Time Period 1 (March 31, 2005- September 30, 2006)	\$500,000 plus carryover from previous Contract year and three (3) patent applications
PFTT Time Period 2 (October 1, 2006- September 30, 2007)	\$500,000 and five (5) patent applications

At the end of PFTT Time Period 2, the Government will review annual reports submitted by the Contractor in accordance with subsection (c)(4) of this clause and determine if metrics should be prescribed for the remainder of the Contract or if the remaining commitments may be fulfilled at the discretion of the Contractor.

**(b) Transfer of Patent Rights to a Successor Contractor**

As consideration for the Contractor's Commitment defined in paragraph (a) of this clause, the Parties agree that at the termination or expiration of this Contract, the following terms and conditions shall apply to Subject Inventions which were elected to be pursued under the Contractor's PFTT program, and to the licenses and royalties generated therefrom:

- (1) In the event Contractor has executed a license, assignment or other commercialization agreement to a Subject Invention prior to termination or expiration of this Contract in which royalties, fees, equity or other consideration is to be or has been paid (hereinafter "agreement"), the distribution of net income from royalties, equity, or any other consideration received or to be received under such agreement shall remain as prior to Contract termination or expiration and shall continue for the duration of such agreement. As set forth in paragraph (e) below, fifty-one percent (51%) of such net income shall go to the Successor Contractor at the Facility for use at the Facility pursuant to its contract or, in the absence of a Successor Contractor, to such other entity designated by the Government, and forty-nine percent (49%) may be retained by the Contractor for use in accordance with 35 USC Section 200 et seq. Administration of agreements

related to such Subject Invention, shall remain with the Contractor. Title to such Subject Invention shall remain with the Contractor provided the Contractor has fulfilled the commitments set forth in paragraph (a) above. If the Contractor has not fulfilled the commitments set forth in paragraph (a) above, upon request, title to such Subject Invention shall be transferred to the Successor Contractor, or such other entity designated by the Government.

- (2) In the event Contractor has not executed an agreement (as defined in paragraph (1) above) to a Subject Invention, upon request, title to such Subject Invention shall be transferred to the Successor Contractor, or to such other entity designated by the Government, unless Contractor can demonstrate that it has expended at least twenty thousand dollars (\$20,000) of private monies in its PFTT program toward the patenting, licensing, marketing and/or development of such Subject Invention, and the Contractor has fulfilled the commitments set forth in paragraph (a) above. In the event Contractor retains title to a Subject Invention under this paragraph, the distribution of royalties, fees, equity or other consideration from such agreement shall be as set forth in paragraph (1) above.
- (3) In the event Contractor retains title to Subject Inventions under paragraphs (1) or (2) above, and executes an agreement (as defined in paragraph (1) above) to such Subject Inventions after the termination or expiration of this Contract the distribution of royalties, fees, equity or other consideration from such agreement shall be as set forth in paragraph (1) above.
- (4) The Contractor and the Government shall enter negotiations prior to such termination or expiration with respect to retention of the title to Subject Inventions. Such negotiations shall consider the equities of the Parties with respect to each Subject Invention and shall take into consideration the presence of private investment, DOE's need for continued operation of the Facility, potential commercial use, assumption of patent related liabilities, effective technology transfer, and the need to market the technology. Such negotiations shall not change the disposition of title provided for in paragraphs (1) and (2) above unless mutually agreed by the Contractor and the Government.
- (5) For any Subject Invention to which the Contractor maintains title or administration of an agreement under paragraphs (a)(1)-(2) above, the Contractor agrees that, to the extent it is able to do so in view of prior licenses or assignments, it will negotiate in good faith to enable the Successor Contractor to practice such subject invention in the form of CRADAs, Work For Others agreements, licenses or other appropriate agreements, in order to fulfill the missions and programs of the Facility. It is the intention of the Contractor to enable the Successor Contractor to continue operation of the Facility, including the Facility's technology transfer program. In any event, the Successor Contractor retains the nonexclusive royalty-free right to practice the Subject Invention on behalf of the U.S. Government.

- (6) The provisions of paragraph (a)(1), (2), (3), and (5) above survive expiration or termination of the Contract.

(c) Costs

- (1) Except as otherwise specified in the clause of this Contract entitled, "Technology Transfer Mission," as allowable costs for conducting activities pursuant to provisions of that clause, no costs are allowable as direct or indirect costs for the preparation, filing, or prosecution of patent applications or the payment of maintenance fees, licensing, marketing and development costs after the Contractor elects to pursue commercialization of a Subject Invention under its PFTT program pursuant to paragraph (g) below.
- (2) If an extension of time for election of a Subject Invention for PFTT is approved in accordance with paragraph (g) below, Contractor shall reimburse all allowable costs incurred with respect to such Subject Invention during the time period of the extension. The Contractor shall also reimburse all patent costs which are incurred under the Contract for all Subject Inventions elected to be treated under PFTT regardless, of when such costs are incurred.
- (3) In the case of Contractor's PFTT program, the Contractor shall certify annually that all costs incurred, including, but not limited to, those for licensing, marketing, and development after the Contractor elects to treat a subject invention as PFTT have been and will be paid solely from the Contractor's PFTT program.
- (4) Within 90 days after the end of each Fiscal Year or at contract termination or expiration, the Contractor shall submit a report covering the previous PFTT Time Period which:
- (i) lists the invention disclosures elected and/or patent applications filed under its PFTT program,
  - (ii) certifies the total amount of private monies it expended during the PFTT Time Period, including those expenses related to patenting, marketing, licensing and development of Subject Inventions as required by H-46 subsection (a), and
  - (iii) certifies the amount of gross income received from its PFTT program during the PFTT Time Period.

(d) Liability of the Government

- (1) All costs, including litigation costs, associated with and attributed to Contractor's privately funded technology transfer program are unallowable regardless of the stage of technology development or background intellectual property existing at the time the Subject Invention is chosen for management under the PFTT program, and notwithstanding the inclusion

of publicly funded intellectual property in the Contractor's PFTT program activities.

- (2) The Contractor shall not include in any license agreement or assignment any guarantee or requirement which would obligate the Government to pay any costs or create any liability on behalf of the Government.
- (3) The Contractor shall include in all licensing agreements and in any assignment of title the following clauses unless otherwise approved or directed by the Contracting Officer following consultation with DOE Patent Counsel:
  - (i) "This agreement is entered into by UT-Battelle, LLC (UT-Battelle) in its private capacity. It is understood and agreed that the U.S. Government is not a party to this agreement and in no manner whatsoever shall be liable for nor assume any responsibility or obligation for any claim, cost or damages arising out of or resulting from this agreement or the subject matter licensed assigned."
  - (ii) "Nothing in this Agreement shall be deemed to be a representation or warranty by UT-Battelle or the U.S. Government of the validity of any of the patents or the accuracy, safety, or usefulness for any purpose, of any TECHNICAL INFORMATION, techniques, or practices at any time made available by UT-Battelle. Neither the U.S. Government nor UT-Battelle nor any member company of UT-Battelle shall have any liability whatsoever to LICENSEE or any other person for or on account of any injury, loss, or damage of any kind or nature sustained by, or any damage assessed or asserted against, or any other liability incurred by or imposed upon LICENSEE or any other person, arising out of or in connection with or resulting from:
    - (A) The production, use, or sale of any apparatus or product, or the practice of the INVENTIONS;
    - (B) The use of any TECHNICAL INFORMATION, techniques, or practices disclosed by UT-Battelle; or
    - (C) Any advertising or other promotional activities with respect to any of the foregoing, and LICENSEE shall hold the U.S. Government, UT-Battelle, and any member company of UT-Battelle harmless in the event the U.S. Government, UT-Battelle, or any member company of UT-Battelle is held liable.

UT-Battelle represents that it has the right to grant all of the rights granted herein, except as to such rights as the Government of the United States of America may have or may assert."

(c) Distribution of net income

In the event the Contractor engages in a PFTT program under the clause of this Contract entitled, "Patent Rights – Management and Operating Contracts,

Nonprofit Organization or Small Business Firm Contractor” or the clause of this Contract entitled, “Rights in Data – Technology Transfer,” such that private funds are utilized for technology transfer after the Contractor elects to pursue privately-funded commercialization of a Subject Invention or after the Contractor has received permission from the Contracting Officer to assert statutory copyright in a software program and received DOE approval to commercialize such software under its PFTT program under paragraph (i) below, net income from such PFTT program shall be distributed as follows:

- (1) Fifty-one percent (51%) of net income shall be used at the Facility for scientific research, development and education consistent with the research and development mission and objectives of the Facility. Forty-nine percent (49%) of such net income may be used by the Contractor at a location other than the Facility if such use is for scientific research, development, and education consistent with the research and development mission and objectives of the Facility in accordance with 35 USC Section 200 et seq.
- (2) "Net income" is defined as that amount remaining after the expense of patenting costs, licensing and marketing costs, payments to inventors, and other expenses incidental to the administration of subject inventions is deducted from gross income received.

(f) Equity Plan

It is the intent of the Government and the Contractor that the Contractor shall, in its discretion, take reasonable and prudent actions from both a commercial and stewardship of the Facility’s technology transfer perspective related to the ownership of equity received from third parties under this Contract. Contractor shall submit to the Contracting Officer a plan which shall set forth principles for the Contractor’s acquisition, retention and disposition of equity received from third parties as consideration for licenses or assignments granted to such third party. Such plan shall consider, at a minimum,

- (1) the manner in which the Contractor shall acquire such equity in a third party, including the manner in which Contractor shall apportion capital contributions to such third party between the relative value of private Contractor contributions and the value of contributions representing a license under a Subject Invention;
- (2) the manner in which the Contractor shall hold such equity, given that the Government has an undivided interest in that portion of such equity representing the value of contributions resulting from a license to such Subject Invention;
- (3) the manner in which the Contractor shall dispose of such equity, giving due consideration to the potential for a conflict of interest between the interests of the Government and the Contractor; and
- (4) the manner in which Contractor’s inventors are compensated.

- (g) (1) The Contractor shall indicate whether a Subject Invention will be pursued under its government-funded technology transfer program or its PFTT

program within six (6) months after the Subject Invention is reported to the Contractor, unless an extension is otherwise agreed in writing by the Patent Counsel. Subject Inventions reported to the Contractor on or after the effective date of the contract modification that incorporates this clause into Prime Contract No. DE-AC05-00OR22725 will be eligible for commercialization pursuant to the PFTT program.

- (2) Notwithstanding paragraph (g)(1) above, DOE grants permission for the Contractor to elect the following Subject Inventions for commercialization in the PFTT program which were reported to the Contractor prior to the effective date of the contract modification that incorporates this clause into the Prime Contract No. DE-AC05-00OR22725 (March 15, 2004):

S-96,741

S-96,776

S-99,304

S-99,385

S-99,395

S-101,885

S-101,894

S-101,922

S-101,930

S-101,935

- (3) As consideration for DOE's granting permission to elect the Subject Inventions in paragraph (g)(2) above, the Contractor agrees that upon reaching net income on the entire PFTT portfolio, 61% of net income from these Subject Inventions shall be used at the Facility for scientific research, development and education consistent with the research and development mission and objectives of the Facility. Net income for all other inventions, as described in paragraph (g)(1) above, shall be distributed in accordance with paragraphs (b)(1) and (e)(1) above.
- (4) With respect to the Subject Inventions set forth in paragraph (g)(2) above, Contractor agrees to reimburse all allowable costs incurred with respect to each Subject Invention during the time period from six (6) months after disclosure to the Contractor until the effective date of the contract modification that incorporates this modified clause into Prime Contract No. DE-AC05-00OR22725. DOE agrees that the amount reimbursed will count toward PFTT Time Period 1 spending commitments.

- (h) In its PFTT program, the Contractor shall be substantially guided by the principles of U.S. Competitiveness and Fairness of Opportunity as set forth herein.

- (i) When requesting approval from DOE to assert statutory copyright in a particular software package pursuant to the clause entitled "Rights in Data—Technology Transfer" (Clause I-129(e) herein), Contractor may request that commercialization of such software proceed under the provisions of this Clause H-46. If approved, no costs of such commercialization thereafter shall be allowable, and the proceeds of such commercialization shall be treated in accordance with paragraph (a) above as if such proceeds had resulted from the commercialization of a Subject Invention. Upon termination or expiration of the Contract, such software will be treated as if such software were a Subject Invention elected under Contractor's PFTT program. Disposition of title to such software will be governed by the provisions of paragraphs (b)(1)-(b)(5) above, except that the \$20,000 expenditure requirement for Subject Inventions set forth in paragraph (b)(2) is not applicable to such software.
- (j) Contractor's PFTT program shall be conducted so as to avoid interference with or adverse effects on Contractor's performance of other activities authorized by the Contract, including its government-funded technology transfer program.
- (k) The Contractor shall have procedures implementing its PFTT program. Such implementing procedures shall be provided to the Contracting Officer for review and approval within ninety (90) days after execution of the contract modification authorizing PFTT. The Contractor shall provide any proposed changes to such procedures to the Contracting Officer for review and approval prior to implementation. The Contracting Officer shall have thirty (30) days thereafter to approve or require specific changes to such procedures.
- (l) To the extent DOE unilaterally determines:
  - (1) the Laboratory's mission or function is being negatively impacted; or
  - (2) it provides the most effective technology transfer program.

DOE retains the right to require all or certain portions of Contractor's PFTT program to be administered by a non-laboratory employee(s). Non-laboratory employees shall not utilize any Laboratory facilities without the prior written approval of the Contracting Officer.