

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

PAGE OF PAGES

1 2

2. AMENDMENT/MODIFICATION NO.

M476

3. EFFECTIVE DATE

See Block 16C

4. REQUISITION/PURCHASE REQ. NO.

5. PROJECT NO. (If applicable)

6. ISSUED BY CODE

06005

7. ADMINISTERED BY (If other than Item 6) Code

06005

U.S. Department of Energy
Brookhaven Site Office
53 Bell Avenue, Building 464
Upton, NY 11973-5000

8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code)

Brookhaven Science Associates, LLC
40 Brookhaven Avenue
Building 460
Upton, New York 11973-5000

(✓)

9. A. AMENDMENT OF SOLICITATION NO.

9. B. DATED (SEE ITEM 11)

X

10. A. MODIFICATION OF Contract/Order NO.

DE-AC02-98CH10886

10. B. DATED (SEE ITEM 13)

01/05/1998

CODE N/A

FACILITY CODE N/A

11. THIS ITEM ONLY 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)

N/A

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

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

X C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
Mutual agreement of the parties

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not is required to sign this document and return 1 copies to the issuing office.

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

This Modification is issued to revise Section C.6.4 – Recovery Act Project Category 4: “PHENIX Forward Vertex Detector MIE”, to incorporate authorized changes to current Work Authorization; Revise Part I, Section H – Special Contract Requirements, TOC; Add Clause H.28; Delete Clause H.34; Revise Clause I.139, Obligation of Funds; and Replace Section J.9, Appendix I – DOE Directives.

15A. NAME AND TITLE OF SIGNER (Type or print)

Michael Goldman
Secretary and General Counsel

16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)

Evelyn Landini
Contracting Officer

15B. CONTRACTOR/OFFEROR

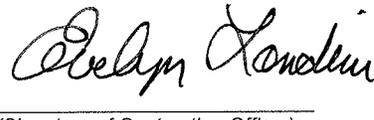
15C. DATE SIGNED

16B. UNITED STATES OF AMERICA

16C. DATE SIGNED


(Signature of person authorized to sign)

6/25/12

BY 
(Signature of Contracting Officer)

6/26/12

Block 14 continued:

1. **Section C.6.4 - Recovery Act Project Category 4:** Replace the pages of this section with the attached revised pages which incorporate Work Authorization changes to the following:
 - a) C.6.4.2: PHENIX Forward Vertex Detector MIE
2. **Part I, Section H – Special Contract Requirements, Table of Contents (TOC):** This section is updated to reflect the addition of Clause H.28, deletion of Clause H.34, and to reflect page number changes; replace the prior version with the revised attachment provided herein.
 - a) Clause H.28, Non-Federal Agreements for Commercializing Technology: This clause is hereby added to the contract as Clause H.28 which was previously RESERVED. The specific language is provided herein as an attachment.
 - b) Clause H.34, Electronic Subcontracting Reporting System: This clause is hereby deleted from the contract since the updated FAR Clause 52.219-9 contains the requirement for electronic reporting. Clause H.34 is now titled RESERVED.
3. **Clause I.139, DEAR 970.5232-4, Obligation of Funds:** The first sentence of paragraph (a) is revised to read as follows: The amount presently obligated by the Government with respect to this Contract is \$7,728,040,633.53.

The revised total reflects an increase of \$16,905,368.12 as a result of modifications A469 through M476 from \$7,711,135,265.41 to \$7,728,040,633.53.

4. **Section J.9, Appendix I – DOE Directives:** The DOE Directives list identified as Modification M456 has been revised; replace the prior version with the attached Appendix I, identified as Modification M476. The revision is as follows:
 - a) Addition of Policy 450.4A, Integrated Safety Management Policy, dated 4-25-11, cancels and removes DOE P 450.7, dated 8-2-04.
 - b) Addition of Order 551.1D, Official Foreign Travel, dated 4-2-12, cancels and removes DOE O 551.1C, dated 6-24-08.
 - c) Addition of Order 580.1A, Department of Energy Personal Property Management Program, dated 3-30-12, cancels and removes DOE O 580.1, Change 1, dated 5-8-08.
 - d) Cancellation and removal of DOE Order 482.1, Facilities Technology Partnering Programs, dated 1-12-01, via DOE Notice 251.111, dated 2-10-12.

Attachments:

Section C.6.4, Recovery Act Project Category 4: Nuclear Physics
 ▪ C.6.4.2: PHENIX Forward Vertex Detector MIE
Part I, Section H – Special Contract Requirements, Table of Contents
Clause H.28
Section J.9, Appendix I – DOE Directives

**C.6.4–Recovery Act Project Category 4:
 Nuclear Physics (NP)**

- A. The American Recovery and Reinvestment Act of 2009 funds obligated under this Category in FY 2009 and FY 2010 are specified below in Section C.
- B. Clause I.139 DEAR 970.5232-4 “Obligation of Funds” has been adjusted accordingly.
- C. The specific work funded under this Category is as follows:

<p><u>1. PHENIX Silicon Vertex MIE (TEC \$.250M)</u></p> <p>Statement of Work: These funds are provided under KB-02-01-02-1 EQU to advance funding for equipment purchases for the PHENIX Silicon Vertex Tracker MIE (71RD) project, including data acquisition crates for front-end modules for strip detectors; data collection modules, and installation fixtures and external cooling system.</p> <p>Per Work Authorization, Rev 02, Attachment A, Contractor Recovery Act Performance Requirements has been revised.</p> <p>Per Work Authorization for FY11, Rev 03, Block 13, “Expected Completion Date” is revised to 12/2010 in order to reflect the correct date of project completion.</p> <p>Per Work Authorization for FY12, Rev 04, Block 13, “Expected Completion Date” is revised from 12/2010 to 09/2012 in order to reflect the correct date of project completion and funds are redistributed.</p> <p><i>The specific Contractor Recovery Act Statement of Work, Milestones, Outcomes and Measures, and Deliverables funded by this modification are identified in the following referenced Work Authorization:</i></p>	
Work Authorization Number	Work Authorization Title
KB/CH13/9/ARRA-1, Rev 01, Rev 02, Rev 03 & Rev 04 Project Code 2005200	Nuclear Physics – PHENIX Silicon Vertex MIE

<p><u>2. PHENIX Forward Vertex Detector MIE (TEC \$.967M)</u></p> <p>Statement of Work: These funds are provided under KB-02-01-02-1 EQU to advance funding for the purchase of two silicon end caps for the PHENIX Forward Vertex Detector MIE (81SF)</p> <p>Rev 03: The revised Work Authorization changes the Expected Completion Date from 6/11 to 12/11.</p> <p>Rev 04: The revised Work Authorization changes the Expected Completion Date from 12/2011 to 09/2012 in order to reflect the correct project completion date and redistribute funds from EQU to OPE.</p> <p><i>The specific Contractor Recovery Act Statement of Work, Milestones, Outcomes and Measures, and Deliverables funded by this modification are identified in the following referenced Work Authorization:</i></p>	
Work Authorization Number	Work Authorization Title
KB/CH13/9/ARRA-2 and Rev 01 Rev 02, Rev 03 & Rev 04 Project Code 2005210	Nuclear Physics – PHENIX Forward Vertex Detector MIE

PART I

SECTION H

SPECIAL CONTRACT REQUIREMENTS

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Clause H.28 - Non-Federal Agreements for Commercializing Technology (Pilot)

This Clause implements a PILOT program for a new technology transfer mechanism, Agreements for Commercialization of Technology (ACT). In accordance with the requirements specified in this Clause, the Contractor may conduct privately-sponsored research at the Contractor's risk for third parties. In performing ACT work, the Contractor may use staff and other resources associated with this Contract for the purposes of conducting research and furthering the technology transfer mission of the Department, on the condition that such use does not interfere with Contractor's activities conducted as authorized by other parts of this Contract. The resources that may be used include Government-owned or leased facilities, equipment, or other property that is either in Contractor's custody or available to the Contractor under this Contract (unless specifically excluded by the Contracting Officer). For Contractor's activities conducted under authority of this Clause, the Contractor shall provide full-cost recovery, assume indemnification and liability as provided in Paragraph 9, below, and may assume other risks normally borne by private parties sponsoring research at the Laboratory. In exchange for accepting such risks, or for other private consideration provided by the Contractor, the Contractor is authorized to negotiate separate agreements (ACT agreements) with the sponsoring third parties. Under ACT agreements, the Contractor may charge those parties additional compensation beyond the direct costs of the work at the Laboratory. Any statement of work involving Federal funds or falling within the scope of a Federally-funded contract or award (other than this Contract) shall not be eligible for an ACT transaction.

DOE and the Contractor recognize that implementation of ACT under this Clause is a PILOT program authorized by the Department and that during the PILOT either party may suggest changes to the program based on the experiences gained. Furthermore, the Contractor recognizes that the Department may decide to end the PILOT at any time and that termination of the PILOT by the Department will be in accordance with Paragraph 12, below.

1. *Authority to Perform work under this Clause.* Pursuant to the Atomic Energy Act of 1954, as amended (42 U.S.C. 2011 et seq.) and other applicable authorities, the Contractor may perform work for non-federal entities, in accordance with the requirements of this Clause.
2. *Contractor's Implementation.* The Contractor must draft, implement, and maintain formal policies, practices, and procedures in accordance with this Clause, which must be approved by the Contracting Officer, and such approval shall not be unreasonably withheld.
3. *Conditions for Participation in ACT.* The Contractor:
 - a. Must not perform ACT activities that would place it in direct competition with the private sector;

- b. May only conduct work under this Clause if the work does not interfere with or adversely affect projects and programs the Contractor conducts on behalf of the Government under this Contract, and complies with FFRDC requirements applicable to the Facility. If the Government determines that an activity conducted under this Clause interferes with the Department's work under the Contract, or that termination/stay/suspension of work under an ACT agreement is in the best interest of the Government, the Contractor must stop the interfering ACT work immediately to the extent necessary to resolve the interference. At any time, the Contracting Officer may require the use of specified Government-owned or leased property and facilities for the exclusive use of the Facility's mission by providing a written notice excluding said property from the Contractor's activities under this Clause. Any cost incurred as a result of Contracting Officer decisions identified in this subparagraph shall be borne by the Contractor. The Contracting Officer shall provide to the Contractor in writing its decision, identifying the issues and reasons for the decisions. The Contractor shall be provided with a reasonable opportunity to address and resolve the issues identified by the Contracting Officer;
- c. Except as otherwise excluded in this Clause, must perform all ACT activities in accordance with the standards, policies, and procedures that apply to performance under this Contract, including but not limited to environmental, safety and health, security, safeguards and classification procedures, and human and animal research regulations;
- d. Contractor must utilize its standard Laboratory subcontracting procedures for any work subcontracted by the Laboratory under the Contract. Otherwise, the Contractor may subcontract ACT work scope that is not performed under the Contract using commercially reasonable subcontracting practices and terms. Costs for performing such subcontracting activities outside the scope of the Contract are not reimbursable under the Contract;
- e. Must make available to DOE a summary of project information for each active ACT project, consisting of: total estimated costs; project title and description; project point of contact; and, estimated start and completion dates;
- f. Is responsible for addressing the following items in ACT agreements as appropriate, as they are in non-federal WFO agreements: disposition of property acquired under the agreement, export control, notice of intellectual property infringement, and a statement that the Government and/or Contractor shall have the right to perform similar services in the Statement of Work for other Parties as otherwise authorized by this Contract subject to applicable data restrictions;

- g. Must include a standard legal disclaimer notice on all publications generated under ACT activities. Each DOE contractor has its own pre-approved publications statement, and this should be used; and
- h. Must insert the following disclaimer in each agreement under ACT, which must be conspicuous (e.g. bold type, all capital letters, or large font) in all Agreements under ACT so as to meet the standards of due notice.

DISCLAIMER

THIS AGREEMENT IS SOLELY BETWEEN BROOKHAVEN SCIENCE ASSOCIATES, LLC ACTING IN A PRIVATE CAPACITY AND [THE OTHER IDENTIFIED PARTY(IES)]. THE UNITED STATES GOVERNMENT IS **NOT** A PARTY TO THIS AGREEMENT, THIS AGREEMENT DOES NOT CREATE ANY OBLIGATIONS OR LIABILITY ON BEHALF OF THE GOVERNMENT AND THE GOVERNMENT MAKES 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 AGREEMENT, OR THE OWNERSHIP, MERCHANTABILITY, OR FITNESS FOR A PARTICULAR PURPOSE OF THE RESEARCH OR RESULTING PRODUCT; THAT THE GOODS, SERVICES, MATERIALS, PRODUCTS, PROCESSES, INFORMATION, OR DATA TO BE FURNISHED HEREUNDER WILL ACCOMPLISH INTENDED RESULTS OR ARE SAFE FOR ANY PURPOSE INCLUDING THE INTENDED PURPOSE; OR THAT ANY OF THE ABOVE WILL NOT INTERFERE WITH PRIVATELY OWNED RIGHTS OF OTHERS. THE GOVERNMENT SHALL NOT BE LIABLE FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES ATTRIBUTED TO SUCH RESEARCH OR RESULTING PRODUCT, INTELLECTUAL PROPERTY, GENERATED INFORMATION, OR PRODUCT MADE OR DELIVERED UNDER THIS AGREEMENT. THIS DISCLAIMER DOES NOT AFFECT ANY RIGHTS THE GOVERNMENT MAY HAVE AGAINST THIRD PARTIES ARISING FROM WORK CONDUCTED IN CONNECTION WITH THIS AGREEMENT.

4. Contracting Authority.

- a. Subject to DOE approval as described in this Paragraph, the Contractor is hereby authorized to negotiate terms and conditions between the Contractor and third parties when entering into ACT agreements. The Contractor will have no authority to bind the Government in any way with such terms and conditions. The Government will have no obligation to the Contractor due to such terms and conditions.

- b. The Contractor shall submit an ACT proposal package (Package) to the Contracting Officer for approval prior to beginning work under an ACT Agreement.
 - i. A complete Package will include at a minimum: the identity of the parties to the ACT Agreement; the principal place of performance; any foreign ownership or control of the ACT Agreement parties; a Statement of Work; an estimate of costs incurred under the Contract; an anticipated schedule; identification of key Government equipment and facilities that will be used under the ACT Agreement; a list of expected deliverables; identification of the IP Lead and proposed selection of IP rights, as defined in DOE Class Waiver W(C)-2011-013; a signed certification by the private party(ies) that the Contractor offered the option to use CRADA and WFO alternatives (see Paragraph 7a) sufficiently that the private parties are aware of the relative costs and other differences between the ACT agreement and the CRADA and WFO alternatives; source of funds, including a statement that no Federal funds, including pass-through funds received as a subcontractor or partner, are being utilized to fund the agreement; applicable ES&H and NEPA documentation; a statement of consideration, summarizing the risk and/or consideration offered the private participants in exchange for charging beyond full cost recovery or for other compensation provided by the participants; and when multiple third parties are parties to the ACT Agreement, or otherwise requested by the Contracting Officer, an IP Management Plan that sets forth the proposed disposition of IP rights, and income and royalty sharing, among the parties to an ACT agreement.
 - ii. If the Contractor, Contractor's parent, member, subsidiary, or other entity in which the Contractor, Contractor's parent, member or subsidiary has an equity interest, is a party to the ACT Agreement, the Contractor shall include as necessary a project-specific addendum to the Master OCI Plan in the Package to address special circumstances not fully anticipated in the prior approved Master OCI Plan (see Paragraph 7).
 - iii. If the ACT Agreement includes a foreign entity as a party or the statement of work includes the use of human subjects, animal subjects, classified or sensitive subject matter or describes a work scope involving high risks or hazards including environmental issues, the Contractor shall include additional information as necessary or as requested by the Contracting Officer.

- c. The Contracting Officer shall use reasonable best efforts to review each complete Package submitted by the Contractor under subparagraph b. of this Paragraph within ten (10) business days of receiving the Package and provide the Contractor with approval or non-approval of the Package. The review of the complete Package by the Contracting Officer shall include a determination that the proposed work: (1) is consistent with or complementary to DOE missions and the missions of the Facility; (2) will not adversely impact programs assigned to the Facility; (3) will not place the Facility in direct competition with the domestic private sector; and (4) will not create a detrimental future burden on DOE resources.
 - d. Except as conditionally allowed under subparagraph i. below, the Contracting Officer must approve the Package before the Contractor may begin work under the proposed ACT Agreement. If the Contracting Officer rejects the Package then the Contracting Officer must provide said rejection to the Contractor in writing including the reasons for the rejection. Upon receipt of the Contracting Officer's written rejection, the Contractor agrees to not further pursue the work described in the package or incur additional costs under the Contract for the work described in the Package.
 - i. The Contractor may request a preliminary determination that the proposed scope of work is consistent with the Facility mission and the Contracting Officer will use his/her best efforts to provide such a determination within three (3) business days. Upon such a determination from the Contracting Officer the Contractor may begin work under the ACT Agreement at the Contractor's risk pending final approval of the complete Package. The Contractor must submit a complete Package, as identified in subparagraph 4b above, within (10) business days of the preliminary determination. All costs associated with the performance of work under a preliminary determination are the responsibility of the Contractor, as no Federal funds will be used to fund any work conducted under this Clause.
 - ii. If the Contractor, Contractor's parent, member, subsidiary, or other entity in which the Contractor, Contractor's parent, member or subsidiary has an equity interest is a party sponsoring work in connection with the ACT agreement, work may not commence until approval of the complete Package by the Contracting Officer
5. *Advance Payment for ACT Projects.* The Contractor shall be responsible for providing adequate advance payment for ACT work conducted under this Clause consistent with procedures defined in the Department's Financial Management Handbook. The Contractor shall be solely responsible for collecting payments from third parties for any work conducted under this Clause and such collections shall be independent of providing advance payment. For such payments and for

any costs, obligations, or liabilities arising due to the Contractor's work under this Clause, the Contractor is entirely at risk and the Government shall have no risk.

6. *Costs.* All direct costs associated with Contractor's work conducted under this Clause shall be directly charged to separate and identifiable accounts in accordance with the requirements of the Department's Financial Management Handbook. An allocable portion of indirect costs normally applied to equivalent work under this Contract shall also be applied to work conducted under this Clause in accordance with the requirements of the Financial Management Handbook. As required by the Financial Management Handbook, changes to the Handbook will be incorporated into this Clause by a unilateral administrative modification to the contract.
 - a. Work conducted under this Clause shall be excluded from Contract award fee calculations and such fee shall not be allocable to work conducted under this Clause.
 - b. No Federal funds will be used to fund work conducted under this Clause.
7. *Organizational Conflict of Interest.* Contractor shall conduct work under this Clause in a manner that minimizes the appearance of conflicts of interest and avoids or neutralizes actual conflicts of interest with Contractor's functions under this Contract. Accordingly, Contractor shall develop a Master Organizational Conflict of Interest Mitigation Plan (OCI Plan). The Master OCI Plan should address OCI issues that arise as a result of the Contractor taking a financial interest in ACT projects, especially in those cases where the Contractor retains rights in ACT IP. Such Master OCI Plan shall be provided to the Contracting Officer for review and approval as soon as practicable after execution of the Contract modification incorporating this Clause into the Contract. In addition to those elements expressly stated in the Master OCI Plan, the Department may condition any ACT transaction on such other mitigating conditions it determines are appropriate. The Master OCI Plan shall, at a minimum, include elements that address the following:
 - a. *Full Disclosure.* Before work can begin under an ACT transaction, all parties to ACT agreements must sign a DOE-approved certification that they have been fully informed about the availability of WFO agreements and CRADAs in addition to ACT. The certification at a minimum shall briefly describe WFO agreements, CRADAs and ACT, and will include the relative disposition of IP rights and the costs (including any additional compensation to the Contractor under ACT) under each agreement for the scope of work being proposed for the Laboratory.
 - b. *Priority of Work.* The Contractor shall not give work under ACT any special attention or priority over other work at the Laboratory. Work under ACT shall be approved by the Contracting Officer and assigned the same priority

funds, where no costs for developing, patenting, and marketing will be allowable under this Contract. The Contractor will share royalties collected on ACT IP with inventors in accordance with paragraph (h) of the Technology Transfer Mission clause of this Contract.

- g. Where terms and conditions governing Data and Subject Inventions under this Contract are inconsistent with the terms of the ACT Class Waiver, the ACT Class Waiver will control. Except as provided in this paragraph 8, licensing of ACT Subject Inventions the Contractor retains in its private capacity will not be subject to the Technology Transfer Mission clause of this Contract.

9. *Contractor Liability and Indemnification.*

a. General Indemnity.

- (i) The Contractor agrees to indemnify and hold harmless the Government, the Department, and persons acting on their behalf from all liability, including costs and expenses incurred, to any person, including the ACT Participants, for injury to or death of persons or other living things or injury to or destruction of property arising out of the performance of an ACT transaction by the Government, the Department, Contractor, or persons acting on their behalf, or arising out of the use of the services performed, materials supplied, or information given hereunder by any person including the Contractor, and not directly resulting from the fault or negligence of the Government, the Department, or persons (other than the Contractor) acting on their behalf.
- (ii) Subject to Contracting Officer approval, the General Indemnity set forth in (i) above may be modified or waived where: (1) ACT Participants are not providing material or equipment to the Contractor to be used in the performance of the Statement of Work under the ACT transaction; and (2) ACT Participants are not sending their employees to the Facility as part of the Statement of Work; and (3) the specific activities performed under the ACT transaction are normally performed by the DOE Contractor at the Facility.
- (iii) Notwithstanding the provisions in a (i) and a (ii) above, the Contractor shall indemnify and hold harmless the Government, the Department, and persons acting on their behalf for loss, damage, or destruction of Government property resulting from the fault or negligence of the Contractor. Such indemnification shall be subject to a liability limit of \$2,000,000 (two million dollars) per year, or such greater liability limit approved by the cognizant DOE/NNSA Program for the Facility. Above the applicable liability limit, Contractor's responsibility to the

Government for such loss, damage or destruction shall be as set forth in the "Property" clause of this Contract.

- b. Intellectual Property Indemnity. The Contractor shall indemnify the Government, its agents, and employees against liability, including costs, for infringement of any United States patent, copyright, or other intellectual property arising out of any acts required or directed to be performed under the Statement of Work under an ACT transaction to the extent such acts are not already performed at the Facility. Such indemnity shall not apply to a claimed infringement that is settled without the consent of the Contractor unless required by a court of competent jurisdiction.
- c. Product Liability Indemnity.
 - (i) Except for any liability resulting from any negligent acts or omissions of the Government, the Contractor agrees to indemnify the Government 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 ACT Participants or the Contractor, their assignees, or licensees, which was derived from the work performed under ACT transactions. In respect to this clause, neither the Government nor the Contractor shall be considered assignees or licensees as a result of reserved Government rights in ACT IP. The indemnity set forth in this paragraph shall apply only if the Contractor shall have been informed as soon and as completely as practical by 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 Government shall have provided all reasonably available information and reasonable assistance requested by the Contractor. No settlement for which the Contractor would be responsible shall be made without the Contractor's consent, unless required by final decree of a court of competent jurisdiction.
 - (ii) Where Contractor assigns the responsibility for indemnifying the Government under subsection c (i) above to other ACT Participants, DOE agrees to seek such indemnification from the Contractor only to the extent not satisfied after reasonable efforts to obtain indemnification from those other ACT Participants.
- d. Claims and liabilities resulting from Contractor's performance of work under an ACT transaction authorized pursuant to this Clause shall not be subject to the Contract clause entitled "Insurance - Litigation and Claims." In no event shall the Contractor be reimbursed under the Contract for liabilities (and expenses incidental to such liabilities, including litigation costs, counsel fees,

and judgment and settlements) incurred as a result of third party claims related to the Contractor's performance under this clause.

- e. Contractor shall not include any guarantee or requirement that will obligate the Government to pay or incur any costs or create any liability on behalf of the Government in any ACT agreement or commitment the Contractor executes under authority of this Clause. The Contractor agrees if the Contractor does include such a guarantee or requirement, it will have no effect on the Government, that is, the Contractor will be responsible for any costs or liability due to such a guarantee or requirement.
10. *ACT Records.* All records associated with Contractor's activities conducted under authority of this Clause shall be treated as Contractor-owned records under the provisions of the Access to and Ownership of Records clause of this Contract.
11. *Reports and Abstracts.* The Contractor shall produce the following deliverables for each ACT Agreement:
- a. An initial abstract suitable for public release at the time the ACT transaction is approved by DOE;
 - b. A non-proprietary final report, upon completion or termination of the Agreement, to include a list of subject inventions; and
 - c. Where pursuant to the ACT Class Waiver, the Government reserves the right to use generated data after the particular project expires, computer software in source and executable object code format as defined within the statement of work or elsewhere within the Agreement.
12. *Termination of ACT Authority.* The PILOT Program implemented by this Clause will terminate three years from the date of the Contract modification adding this Clause to the Contract, unless renewed by the Contracting Officer. The Government may provide the Contractor with written notice to terminate Contractor's authority to conduct work under this Clause at any time. If the Contractor's authority to conduct work under this Clause has expired or been terminated, the Contractor may be permitted, subject to any other provisions of this Clause, to complete any work that was DOE approved work at the time Contractor's authority to conduct work under this Clause was terminated by the Government.
13. *Successor Contractor.*
- a. To minimize the potential for negative Government programmatic impact and to facilitate seamless transition of work to a successor contractor of the Facility, ACT Agreement(s) executed under this Clause and any contractual

instruments associated therewith may be novated to the successor contractor with the mutual consent of the Contractor, the successor contractor, and the parties to the affected ACT Agreement(s). If the ACT Agreement(s) cannot be novated, then the Contractor as a private sponsor shall be permitted to enter into a Non-Federal Work for Others agreement with the successor contractor that will enable completion of the statement of work. Such agreements shall be entered into pursuant to DOE WFO policies. DOE shall make good faith efforts to incorporate the terms of the applicable ACT Agreement.

- b. The Contractor may retain private ownership of any individual piece of ACT IP that it obtained during the term of the Contract if the Contractor demonstrates:
 - i. the ACT IP was successfully commercialized or deployed in the commercial marketplace using private funds; or
 - ii. the Contractor expended at least \$20,000 (USD) of private funds for patenting, marketing, licensing, or maturing the ACT IP.
- c. If the Contractor has not satisfied the criteria of Subparagraph b. to this Paragraph, then the Contractor and Contracting Officer, with input from the DOE Patent Counsel providing oversight to the Facility shall, prior to expiration or termination of the Contract, enter into negotiations to determine an equitable distribution of rights in the affected ACT IP. Such negotiations shall consider the equities of the parties with respect to each piece of intellectual property including, at a minimum, the private expenditures made by the Contractor for patenting, marketing, licensing, and maturing the ACT IP up to the date of Contract expiration or termination; which party is best positioned to appropriately commercialize the ACT IP; and any other equities that may apply under the circumstances.

14. *Minimum Reporting Requirements for ACT Activities.* During the ACT PILOT, the Contractor shall maintain records of its activities related to ACT in a manner and to the extent satisfactory to DOE and specifically including, but not limited to the number of ACT agreements, the amount of funds reimbursed to DOE for work under ACT, the number of private sector entities engaged through ACT that had not previously engaged the Laboratory and the number that had not previously engaged any DOE/NNSA laboratory, the amount of funds reimbursed to DOE by newly engaged entities, the number of parties and types of entities engaged in each individual ACT agreement, and the number of invention disclosures, licenses and start-ups arising from ACT. The Contractor shall obtain from each entity engaged in ACT the entity's reason(s) for selecting ACT for laboratory engagement. Also during the PILOT, the Contractor shall report the above-identified data semiannually to DOE and in such a format which will serve to adequately inform DOE of the Contractor's activities under ACT while protecting any data not subject to disclosure under this Contract. Such records shall be

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made available in accordance with the clauses of this Contract pertaining to inspection, audit and examination of records.

U.S. Department of Energy
and
Brookhaven Science Associates, LLC

ATTACHMENT J.9

APPENDIX I

DOE DIRECTIVES/LIST B

**Applicable to the Operation of
The Brookhaven National Laboratory**

**Contract No. DE-AC02-98CH10886
Modification No. M476**

Appendix I
Modification No.M476
Supplemental Agreement to
Contract No. DE-AC02-98CH10886

APPENDIX I

DOE DIRECTIVES

There is no List A to this Appendix.

List B to this Appendix contains two parts as follows:

Part I: "Directives List"

This section contains a list of Directives that are considered by DOE as applicable to the BNL contract.

Part II: "Partial Deletions of Directives"

This section contains a list of Directives that are applicable, but have subsequently been revised by DOE to remove certain sections.

Appendix I - Part I
DOE DIRECTIVES LIST

DOE Directives may be found at the following address: <http://www.directives.doe.gov>

DATE	TYPE	NUMBER	THROUGH CHANGE	SUBJECT TITLE Contractor Requirements Document (CRD) Includes Compliance Notes as Necessary
9/29/95	Order	130.1		CRD - Budget Formulation Process
5/2/01	Policy	141.1		Department of Energy Management of Cultural Resources
9/4/08	Manual	142.2-1		CRD – Manual for Implementation of the Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
12/15/06	Order	142.2A		CRD – Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
10/14/10	Order	142.3A		CRD – Unclassified Foreign Visits and Assignments Program
5/8/08	Order	150.1		CRD – Continuity Programs
11/2/05	Order	151.1C		CRD - Comprehensive Emergency Management System
6/27/07	Order	153.1		CRD - Departmental Radiological Emergency Response Assets
12/23/08	Order	200.1A		CRD – Information Technology Management
1/7/05	Order	203.1		Limited Personal Use of Government Office Equipment Including Information Technology
5/8/01	Policy	205.1		Departmental Cyber Security Management Policy
4/17/06	Manual	205.1-3		Telecommunications Security Manual
1/16/09	Order	206.1		CRD - Department of Energy Privacy Program
6/29/07	Notice	206.4		CRD - Personal Identity Verification
4/8/11	Order	210.2A		CRD – DOE Corporate Operating Experience Program
4/19/08	Order	221.1A		CRD - Reporting Fraud, Waste, and Abuse to the Office of Inspector General
2/25/08	Order	221.2A		CRD - Cooperation with the Office of Inspector General
3/4/11	Order	225.1B		CRD - Accident Investigations
8-30-11	Order	227.1		CRD – Independent Oversight Program
6-27-11	Order	231.1B		CRD – Environment, Safety and Health Reporting Compliance Note: This order requires additional reporting per DOE O 458.1 by August 2012.
8/30/11	Order	232.2		CRD – Occurrence Reporting and Processing of Operations Information
12/13/10	Order	241.1B		CRD - Scientific and Technical Information Management
11/10/11	Order	243.1A		CRD – Records Management Program
2/2/06	Order	243.2		CRD - Vital Records
4/19/10	Notice	251.79		Extension of DOE N 456.1, The Safe Handling of Unbound Engineered Nanoparticles, Until 4-19-11.
6/23/10	Notice	251.86		Extension of DOE N 234.1, Reporting of Radioactive Sealed Sources, until 5-6-11
2/23/11	Order	252.1A		CRD - Technical Standards Program

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DATE	TYPE	NUMBER	THROUGH CHANGE	SUBJECT TITLE Contractor Requirements Document (CRD) Includes Compliance Notes as Necessary
11/19/09	Order	313.1		CRD – Management and Funding of the Departments Overseas Presence
10/18/07	Order	341.1A Parts: 1.a., 1.b., 2.a., 2.a.(1), 2.a.(2), 2.a.(3), 2.a.(4)(a), 2.a.(4)(b), 2.a.(4)(d), 2.a.(4)(f), 2.a.(4)(g) and 2.a.(4)(h)		CRD - Federal Employee Health Services
2/23/10	Order	350.1	3 2/23/10	CRD - Contractor Human Resource Management Programs
11/16/11	Order	NA 350.2		CRD – Assignments to the Washington, D.C., Area
5/31/11	Order	350.2B		CRD – Use of Management and Operating or Other Facility Management Contractor Employees for Services to DOE in the Washington D.C. Area
8/17/09	Order	410.2		CRD – Management of Nuclear Materials
4/21/05	Order	412.1A		Work Authorization System
10/28/08	Order	413.1B		CRD – Internal Control Program
4/19/06	Order	413.2B	Admin Chg 1 1/31/11	CRD - Laboratory Directed Research and Development
11/29/10	Order	413.3B		CRD – Program and Project Management for the Acquisition of Capital Assets
4/25/11	Order	414.1D		CRD – Quality Assurance
2/8/11	Policy	420.1		Department of Energy Nuclear Safety Policy Compliance Note: Only applicable to BNL facilities categorized as Hazardous Category 1, 2 or 3 nuclear facilities
2/22/05	Order	420.1B	1 4/19/10	CRD – Facility Safety Compliance Note: The Strategic Fire Safety Plan addresses a non-compliance to this Order, which was provided to and acknowledged by DOE. It is expected to take a number of years and additional staff effort to complete.
7/21/11	Order	420.2C		CRD – Safety of Accelerator Facilities
6/29/10	Order	422.1		CRD- Conduct of Operations Compliance Note: Applicable to Hazardous Category 1, 2, or 3 nuclear facilities and other facilities as defined by BSA in a Program Plan, to be approved by BHSO, for incorporating Conduct of Operations principles into BSA operations.

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DATE	TYPE	NUMBER	THROUGH CHANGE	SUBJECT TITLE Contractor Requirements Document (CRD) Includes Compliance Notes as Necessary
4/16/10	Order	425.1D		CRD – Verification of Readiness to Start Up or Restart Nuclear Facilities Compliance Note: Only applicable to BNL facilities categorized as Hazardous Category 1, 2 or 3 nuclear facilities
4/21/10	Order	426.2		CRD - Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities
09/24/03	Order	430.1B	2 4/25/11	CRD – Real Property and Asset Management
4/21/10	Order	433.1B		CRD - Maintenance Management Program for DOE Nuclear Facilities Compliance Note: Only applicable to BNL facilities categorized as Hazardous Category 1, 2 or 3 nuclear facilities
6/5/09	Policy	434.1		Conduct and Approval of Select Agent and Toxin Work at Department of Energy Sites
7/9/99	Order	435.1	1 8/28/01	CRD - Radioactive Waste Management
7/9/99	Manual	435.1-1	1 6/19/01	Radioactive Waste Management Manual
5/2/11	Order	436.1		CRD – Departmental Sustainability
3/7/08	Manual	441.1-1		CRD - Nuclear Material Packaging Manual
6/6/01	Order	442.1A		CRD - Department of Energy Employee Concerns Program
7/29/11	Order	442.2		CRD – Differing Professional Opinions for Technical Issues Involving Environment, Safety and Health
3/17/11	Order	443.1B		CRD – Protection of Human Research Subjects
4-25-11	Policy	450.4A		Integrated Safety Management Policy
7/21/11	Order	452.8		CRD - Control of Nuclear Weapon Data
5/31/11	Order	456.1		CRD – The Safe Handling of Unbound Engineered Nanoparticles
9/15/05	Policy	456.1		Secretarial Policy Statement on Nanoscale Safety
2/11/11	Order	458.1	Admin Chg 2 6/6/11	CRD- Radiation Protection of the Public and the Environment Compliance Note: Environmental Safety and Health Directorate is currently developing an implementation/cost plan. by September 1, 2012.
5/14/10	Order	460.1C		CRD - Packaging and Transportation Safety
12/22/04	Order	460.2A		CRD - Departmental Materials Transportation and Packaging Management
6/4/08	Manual	460.2-1A		Radioactive Material Transportation Practices Manual

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DATE	TYPE	NUMBER	THROUGH CHANGE	SUBJECT TITLE Contractor Requirements Document (CRD) Includes Compliance Notes as Necessary
12/20/10	Order	461.1B		CRD – Packaging and Transportation for Offsite Shipment of Materials of National Security Interest
12/29/10	Policy	470.1A		Safeguards and Security Program
8/12/08	Order	470.3B		Graded Security Protection (GPS) Policy
7/21/11	Order	470.4B		CRD – Safeguards and Security Program
1/16/09	Manual	470.4-4A*	1 10/12/10	CRD – Information Security Manual Compliance Note: This Directive is cancelled by Order 471.6, except for Section D. – Technical Surveillance Countermeasures, which will be retained in its entirety.
3/1/10	Order	471.1B		CRD - Identification and Protection of Unclassified Controlled Nuclear Information
4/9/03	Order	471.3	Admin Chg 1 1/13/11	CRD - Identifying and Protecting Official Use Only Information
4/9/03	Manual	471.3-1	Admin Chg 1 1/13/11	CRD - Manual for Identifying and Protecting Official Use Only Information
6/20/11	Order	471.6		CRD – Information Security Compliance Note: Partial deletion of Manual 470.4-4A;
7/27/11	Order	472.2		CRD – Personnel Security
6/27/11	Order	473.3		CRD - Protection Program Operations
6/27/11	Order	474.2	Admin Chg 1 8/3/11	CRD – Nuclear Material Control and Accountability
12/10/04	Order	475.1		Counterintelligence Program
2/1/11	Order	475.2A		CRD – Identifying Classified Information
1/03/01	Manual	481.1-1A	1 9/28/01	Reimbursable Work for Non-Federal Sponsored Process Manual
1/12/01	Order	483.1		CRD - DOE Cooperative Research and Development Agreements
1/12/01	Manual	483.1-1		DOE Cooperative Research and Development Agreements
8/17/06	Order	484.1	1 3/14/11	CRD - Reimbursable Work for the Department of Homeland Security
11/3/04	Order	522.1		CRD - Pricing of Departmental Materials and Services
1/6/03	Order	534.1B		CRD – Accounting
4-2-12	Order	551.1D		CRD – Official Foreign Travel
3-30-12	Order	580.1A		CRD – Department of Energy Personal Property Management Program

Appendix I - Part II

PARTIAL DELETIONS OF DIRECTIVES

DATE	DOE DIRECTIVE NUMBER	SUBJECT TITLE	DELETION DIRECTIVE DATE	SECTIONS DELETED
10/12/10	M 470.4-4A	Information Security Manual	Order 471.6	All, except for Section D. – Technical Surveillance Countermeasures, which will be retained in its entirety