

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE

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2. AMENDMENT/MODIFICATION NO. 0084	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY U.S. Department of Energy Brookhaven Site Office 53 Bell Avenue, Building 464 Upton, NY 11973-5000	CODE 06005	7. ADMINISTERED BY (If other than Item 6) Code	06005

8. NAME AND ADDRESS OF CONTRACTOR (No. street, county, State and ZIP Code) Brookhaven Science Associates, LLC Attn: Brian Boyle Brookhaven National Laboratory Building 460, PO Box 5000 Upton, New York 11973-5000	<input checked="" type="checkbox"/>	9. A. AMENDMENT OF SOLICITATION NO.
	<input type="checkbox"/>	9. B. DATED (SEE ITEM 11)
	<input checked="" type="checkbox"/>	10. A. MODIFICATION OF Contract/Order NO. DE-SC0012704
CODE N/A	FACILITY CODE N/A	10. B. DATED (SEE ITEM 13) 12/22/2014

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.

<input type="checkbox"/>	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.
<input type="checkbox"/>	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).
<input checked="" type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF: Mutual agreement of the parties
<input type="checkbox"/>	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 Part I, Section H – Special Contract Requirements, TOC, add Clause H.37, delete Clause H.45; revise Part III, Section J – List of Documents, Exhibits, Attachments, TOC, updated Appendix A – Advance Understanding on Human Resources, replace Appendix I – DOE Directives/List B. These changes reflect the Prime Contract Reform initiative.

15A. NAME AND TITLE OF SIGNER (Type or print) George Clark Chief Financial Officer	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Evelyn Landini Contracting Officer
15B. CONTRACTOR/OFFEROR	16B. UNITED STATES OF AMERICA
15C. DATE SIGNED 7/21/17	16C. DATE SIGNED 7/25/17
 (Signature of person authorized to sign)	 BY (Signature of Contracting Officer)

14. Description of Amendment/Modification (continued):

1. **Part I, Section H – Special Contract Requirements, Table of Contents (TOC):** Section H TOC is revised to add H.37 and delete H.45.
 - a. **Clause H.37, Real Property Asset Management (Apr 2017) –** This clause is hereby added to the Contract as Clause H.37 which was previously RESERVED IAW DOE Office of Science Policy Guidance, SC/PG-2017-05 dated April 5, 2017. Accordingly, revised DOE Order 430.1C was issued without a Contractor Requirements Document; therefore, SC issued Program Secretarial direction in an H clause that contains requirements for M&O Contractors.
 - b. **Clause H.45, Multifactor Authentication for Contractor Information Systems (Jun 2016) –** This clause is hereby deleted from the contract. Clause H.45 is now titled “RESERVED”.

2. **Part III, Section J – List of Documents, Exhibits, Attachments, Table of Contents (TOC):** Section J TOC is revised to reflect the following: Update Appendix A – Advance Understanding on Human Resources; Replace Appendix I – DOE Directives/List B.
 - a. **Appendix A – Advance Understanding on Human Resources** has been revised to update Section XI, Costs of Recruiting Personnel paragraph (a). Replace the current language with the language provided herein.

“On an annual basis, the Laboratory will conduct workforce planning, documented in form and substance that is responsive to and aligned with the guidance and direction in the Annual Lab Plan. This information will be provided to the Contracting Officer in advance of its inclusion in the Annual Lab Plan for Contracting Officer review.”
 - b. **Appendix I – DOE Directives/List** identified as Modification No. 0073 has been revised; replace the prior version with the attached Appendix I identified as Modification No. 0084. The revisions are as follows:

SUMMARY OF DIRECTIVE CHANGES
Additions and Updates

ADDITIONS	TITLE	CHANGE	NOTES
O 142.3A, Chg. 1 (Minor Chg.)	Unclassified Foreign Visits and Assignments Program	Update	Supersedes O 142.3A dated 10-14-10.
O 200.1A Chg. 1 (Minor Chg.)	Information Technology Management	Update	Supersedes DOE O 200.1A dated 12-23-08.
O 232.2A	Occurrence Reporting and Processing of Operations Information	Update	Supersedes DOE O 232.2 Admin Chg. 1 dated 3-12-14.
O 411.2	Scientific Integrity	Add	New Directive
O 483.1B	DOE Cooperative Research and Development Agreements	Update	Cancel s DOE O 483.1A dated 11-6-2013.

SUMMARY OF DIRECTIVE CHANGES

Deletions

ADDITIONS	TITLE	CHANGE	NOTES
P 141.1	Department of Energy Management of Cultural Resources	Delete	The policy is duplicative of clause I-122, DEAR 970.5204-2 and contains no CRD.
P 205.1	Departmental Cyber Security Management Policy	Delete	This policy is duplicative of O 205.1B and contains no CRD.
P 226.2	Policy for Federal Oversight and Contractor Assurance Systems	Delete	The policy is duplicative of clause H.3 of the prime contract and contains no CRD.
P 364.1	Health and Safety Training Reciprocity	Delete	The policy contains no CRD.
P 420.1	Department of Energy Nuclear Safety Policy	Delete	The policy is duplicative and contains no CRD. Relevant nuclear safety requirements are captured in other DOE directives, (e.g. O 420.1C).
P 450.4A	Integrated Safety Management Policy	Delete	The policy is duplicative and contains no CRD. The driver for ISM is captured in Dear Clause 970.5223-1 Integration of Environment, Safety, & Health into Work Planning & Execution.
P 456.1	Secretarial Policy Statement on Nanoscale Safety	Delete	The Policy is duplicative and contains no CRD. The requirements for managing nanomaterial hazards were subsequently issued in a CRD that is attached to DOE Order O 456.1A, which is currently in the prime contract.
P 481.1	DOE's Policy Regarding Laboratories, Plants and Sites Engaging in Strategic Partnership Projects with Other Federal Agencies, Independent Organizations, and the Private Sector	Delete	The policy is duplicative and contains no CRD. Requirements are captured in DEAR clause 970.5217-1.
O 412.1A Chg. 1 (Admin Chg.)	Work Authorization System	Delete	This order contains no CRD and the requirements contained within the order apply to DOE Program Offices and not M&O Contractors.
O 430.1B Chg. 2	Real Property Asset Management	Delete	The revised DOE Order 430.1C was issued without a CRD and SC issued an H clause that contains the requirements for M&O Contractors.
O 433.1B Chg. 1 (Admin Chg.)	Maintenance Management Program for DOE Nuclear Facilities	Delete	BSA does not have any HC-1, HC-2, or HC-3 Nuclear Facilities; therefore, this is removed from the Prime Contract.
O 580.1A Admin Chg. 1	Department of Energy Personal Property Management Program	Delete	Order 580.1A Admin Chg. 1 was cancelled by DOE Notice 251.118. BSA Prime Contract Clause 1.162 - DEAR 970.5245-1-Property contains applicable guidance including reference to 41 CFR 101 and 41 CFR 109.

Attachments:

- Part I, Section H – Special Contract Requirements
 - ❖ H.37
- Part III, Section J – List of Documents, Exhibits, Attachments
 - ❖ Appendix A – Advance Understanding on Human Resources, paragraph (a)
 - ❖ Appendix I – DOE Directives/List

CLAUSE H.37 – REAL PROPERTY ASSET MANAGEMENT (MODIFIED JUL 2017)

- A. The Contractor shall acquire, manage, maintain, disposition, and dispose of real property assets to ensure that real property assets are available, utilized, and in a suitable condition to accomplish DOE's missions in a safe, secure, sustainable, and cost-effective manner. Contractors shall meet these functional requirements through tailoring of their business processes and management practices, and use of standard industry practices and standards as applicable. The contractor shall flow down these requirements to subcontracts at any tier to the extent necessary to ensure the contractor's compliance with the requirements.
- B. Contractor shall:
1. Submit all real estate actions to acquire, utilize, and dispose of real property assets to DOE for review and approval and maintain real estate records in accordance with Section I Clause "DEAR 970.5204-3 – Access To and Ownership of Records".
 2. Perform physical condition and functional utilization assessments on each real property asset at least once every five fiscal years or at another risk-based interval as approved by SC-1 based on industry leading practices, voluntary consensus standards, and customary commercial practices.
 3. Establish a maintenance management program including: a computerized maintenance management system (CMMS); a condition assessment system; a master equipment list; maintenance service levels; a method to determine for each asset the minimum acceptable level of condition; methods for categorizing deficiencies as either deferred maintenance and repair (DM) or repair needs; management of the DM backlog; a method to prioritize maintenance work; and a mechanism to track direct and indirect funded expenditures for maintenance, repair, and renovation at the asset level.
 4. Maintain Facilities Information Management System (FIMS) data and records for all lands, buildings, trailers, and other structures and facilities. FIMS data must be current and verified annually.

SECTION XI - COSTS OF RECRUITING PERSONNEL

- (a) On an annual basis, the Laboratory will conduct workforce planning, documented in form and substance that is responsive to and aligned with the guidance and direction in the Annual Lab Plan. This information will be provided to the Contracting Officer in advance of its inclusion in the Annual Lab Plan for Contracting Officer review.

APPENDIX I

DOE Directives/List B

**Applicable to the Operations of
Brookhaven National Laboratory**

There is no List A to this Appendix.

List B to this Appendix contains the following:

Part I: "Directives List"

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

Appendix I - Part I DOE DIRECTIVES LIST

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

ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
9/29/1995	Order	130.1		Budget Formulation
9/4/2008	Manual	142.2-1	Admin Chg. 1 6/27/13	Manual for Implementation of the Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
12/15/2006	Order	142.2A	Admin Chg. 1 6/27/13	Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
10/14/2010	Order	142.3A	Chg.1 (Minor Chg.) 01/18/2017	Unclassified Foreign Visits and Assignments Program
3/31/2014	Order	150.1A		Continuity Programs
8/11/2016	Order	151.1D		Comprehensive Emergency Management System
6/27/2007	Order	153.1		Departmental Radiological Emergency Response Assets
12/23/2008	Order	200.1A	Chg.1 (Minor Chg.) 01/13/2017	Information Technology Management
1/7/2005	Order	203.1		Limited Personal Use of Government Office Equipment Including Information Technology
5/16/2011	Order	205.1B	Admin Chg. 3 4/29/14	Department of Energy Cyber Security Program
1/16/2009	Order	206.1		Department of Energy Privacy Program
2/19/2013	Order	206.2		Identity, Credential and Access Management (ICAM)
4/8/2011	Order	210.2A		DOE Corporate Operating Experience Program
9/27/2016	Order	221.1B		Reporting Fraud, Waste, and Abuse to the Office of Inspector General
2/25/2008	Order	221.2A		Cooperation with the Office of Inspector General
3/4/2011	Order	225.1B		Accident Investigations
8/30/2011	Order	227.1A	12/21/2015	Independent Oversight Program
6/27/2011	Order	231.1B	Admin Chg. 1 11/28/12	Environment, Safety and Health Reporting
1/17/2017	Order	232.2A		Occurrence Reporting and Processing of Operations Information Compliance Note: Implementation will be completed by October 1, 2017 in accordance with ES&H Memo dated 6/27/2017.
12/13/2010	Order	241.1B	Chg.1 4/26/16	Scientific and Technical Information Management
3/11/2013	Order	243.1B	Admin Chg.1 7/8/13	Records Management Program

Appendix I - Part I DOE DIRECTIVES LIST

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

ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
2/23/2011	Order	252.1A	Admin Chg. 1 3/12/13	Technical Standards Program
11/19/2009	Order	313.1		Management and Funding of the Department's Overseas Presence
10/18/2007	Order	341.1A Parts: 1.(a- b) 2.a(1-3) 2.a(4)(a- h)		Federal Employee Health Services
2/23/2010	Order	350.1	Chg. 5 9/30/14	Contractor Human Resource Management Programs
8/17/2009	Order	410.2	Admin Chg. 1 4/10/14	Management of Nuclear Materials
1/4/2017	Order	411.2		Scientific Integrity
10/28/2008	Order	413.1B		Internal Control Program
4/19/2006	Order	413.2C	10/22/2015	Laboratory Directed Research and Development
11/29/2010	Order	413.3B	Chg. 3 (Pg.Chg.) 12/20/16	Program and Project Management for the Acquisition of Capital Assets
4/25/2011	Order	414.1D	Admin Chg. 1 5/8/13	Quality Assurance
12/3/2012	Order	415.1	Chg.2 (Min.Chg.) 1/17/2017	Information Technology Project Management
12/4/2012	Order	420.1C	Chg.1 2/27/15	Facility Safety Compliance Note: Chapters 1, 3, and 5 are applicable to BNL facilities categorized as hazardous category 1, 2, or 3 nuclear facility is proposed by BNL and approved by DOE
7/21/2011	Order	420.2C		Safety of Accelerator Facilities
6/29/2010	Order	422.1	Admin Chg. 1 6/25/13	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
4/16/2010	Order	425.1D	Admin Chg. 1 4/2/13	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
4/21/2010	Order	426.2	Admin Chg. 1 7/19/13	Personnel Selection, Training, Qualification, and Certification Requirements for DOE Nuclear Facilities

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ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
11/25/2016	Policy	434.1B		Conduct and Approval of Select Agent and Toxin Work at Department of Energy Sites
7/9/1999	Order	435.1	Admin Chg. 1 8/28/01	Radioactive Waste Management
7/9/1999	Manual	435.1-1	Admin Chg. 1 6/19/01	Radioactive Waste Management Manual
5/2/2011	Order	436.1		Departmental Sustainability
11/27/2002	Order	440.2C	Admin Chg. 1 6/22/11	Aviation Management and Safety
3/7/2008	Manual	441.1-1	Chg. 1 (Admin Chg.) 02/24/16	Nuclear Material Packaging Manual
6/6/2001	Order	442.1A		Department of Energy Employee Concerns Program
7/29/2011	Order	442.2	Chg.1 (Pg.Chg.) (10/4/2016)	Differing Professional Opinions for Technical Issues Involving Environment, Safety and Health
3/7/2011	Order	443.1B	Chg. 1 (Pg.Chg.) 4/21/16	Protection of Human Research Subjects
7/21/2011	Order	452.8		Control of Nuclear Weapon Data
2/11/2011	Order	458.1	Admin Chg. 3 1/15/13	Radiation Protection of the Public and the Environment
12/20/2016	Order	460.1D		Hazardous Materials Packaging and Transportation Safety
12/22/2004	Order	460.2A		Departmental Material Transportation and Packaging Management
6/4/2008	Manual	460.2-1A		Radioactive Material Transportation Practices Manual
11/10/2008	Order	462.1	Admin Chg. 1 7/10/13	Import and Export of Category 1 and 2 Radioactive Sources Aggregated Quantities
2/10/2016	Policy	470.1B		Safeguards and Security Program
11/23/2016	Order	470.3C		Design Basis Threat (DBT) Order
7/21/2011	Order	470.4B	Chg.2 (Minor Chg.) 1/17/2017	Safeguards and Security Program
6/2/2014	Order	470.5		Insider Threat Program
9/2/2015	Order	470.6		Technical Security Program
3/1/2010	Order	471.1B		Identification and Protection of Unclassified Controlled Nuclear Information

Appendix I - Part I
DOE DIRECTIVES LIST

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

ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
4/9/2003	Order	471.3	Admin Chg. 1 1/13/11	Identifying and Protecting Official Use Only Information
4/9/2003	Manual	471.3-1	Admin Chg. 1 1/13/11	Manual for Identifying and Protecting Official Use Only Information
6/20/2011	Order	471.6	Admin Chg. 2 5/15/15	Information Security
7/27/2011	Order	472.2	Admin Chg. 1 10/8/13	Personnel Security
3/23/2016	Order	473.3A		Protection Program Operations
6/27/2011	Order	474.2	Chg. 4 (Pg.Chg.) 9/13/2016	Nuclear Material Control and Accountability
12/10/2004	Order	475.1		Counterintelligence Program
10/3/2014	Order	475.2B		Identifying Classified Information
1/3/2001	Manual	481.1-1A	Admin Chg. 1 9/28/01	Reimbursable Work for Non Federal Sponsored Process Manual
12/20/2016	Order	483.1B		DOE Cooperative Research and Development Agreements
8/17/2006	Order	484.1	Admin Chg. 2 6/30/14	Reimbursable Work for the Department of Homeland Security
1/19/2017	Policy	485.1		Foreign Engagements with DOE National Laboratories
11/3/2004	Order	522.1		Pricing of Departmental Materials and Services
1/6/2003	Order	534.1B		Accounting
4/2/2012	Order	551.1D	Chg. 2 (Minor Change) 8/11/16	Official Foreign Travel