AMENDMENT OF SOLICITATION/I	MODIFICATION C	F CONTRACT	1. CONTRACT ID C	ODE	1 2	
AMENDMENT/MODIFICATION NUMBER 0188	3. EFFECTIVE DATE See Block 16c	4. REQUISITION/PURCHAS			T NUMBER (If applicable)	
6. ISSUED BY CODE	892430	7. ADMINISTERED BY (If other than Item 6)	CODE	06005	
SC Consolidated Service Center Office of Science		Brookhaven Site Office of Science				
U.S. Department of Energy 9800 South Cass Avenue			U.S. Department of Energy 53 Bell Avenue Building 464			
NAME AND ADDRESS OF CONTRACTOR (Number, street)	et, county, State and ZIP Co.			NT OF SOLIC	ITATION NUMBER	
Brookhaven Science Associates, LLC		100	98. DATED (SE	E (TEM 44)	Television Alban S. F.	
Attn: Kevin Fox			eo. DATED (SE	LITEMIN		
Brookhaven National Laboratory Building 460, PO Box 5000		1	10A. MODIFICA	ATION OF CON	TRACT/ORDER NUMBE	
Upton NY 11973-5000				- 1		
CODE 027570400	CILITY CODE N/A	- 2	10B. DATED (S 12/22/2014			
02.0.0.0	A COLUMN TO A SECTION OF THE PARTY OF THE PA	AMENDMENTS OF S		15		
The above numbered solicitation is amended as set forth					ot extended.	
CHECK ONE A THIS CHANGE ORDER IS ISSUED PURS NUMBER IN ITEM 10A. B. THE ABOVE NUMBERED CONTRACTION appropriation data, etc.) SET FORTH IN ITEM 10A. C. THIS SUPPLEMENTAL AGREEMENT IS FAR 43.103(a), Agreements of the contraction of the contr	copies of the amendmen ludes a reference to the soli 97 TO FOFENS PRIOR TO ady submitted, such change lendment, and is received pri 97 CONTRACT/ORDER SUANT TO: (Specify authority) RDER IS MODIFIED TO RE TEM 14, PURSUANT TO THE EMTERED INTO PUTSUAN he parties modifying authority)	it (b) By acknowledging recolation and amendment num THE HOUR AND DATE SPI THE HOUR AND THE HOUR AND THE THE HOUR AND THE HOUR AND THE THE HOUR AND THE HOUR AND THE THE AUTHORITY OF FAR 43. IT TO AUTHORITY OF: IT TO AUTHORITY OF: IT THE HOUR AND THE HOUR	ript of this amendment of nibers. FAILURE OF YC ICFIED MAY RESULT ectronic communication date specified. NTRACTS/ORDE RIBED IN ITEM 1 RTH IN ITEM 14 ARE N IVE CHANGES (such a 103(b). Intract.	in each copy of DUR ACKNOW. IN REJECTIO IN REJECTIO Provided each RS. 4. MADE IN THE (LEDGMENT TO BE N OF YOUR OFFER. If letter or electronic CONTRACT ORDER aying office,	
E. IMPORTANT: Contractor is not is	required to sign this of	document and return	1 copie	es to the iss	uing office.	
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organise page 2.	nized by UCF section headi	ings, including solicitation/col	ntract subject matter wh	ere feasible.)		
Except as provided herein, all terms and conditions of the door	ument referenced in Item 9A	or 10A, as heretofore chance	ged, remains unchanged	and in full force	e and effect.	
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF				
George Clark, Chief Financial Officer		Fausto R. Fernand	ez. Contracting (Officer		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF			16C. DATE SIGNED	
George Clark Date: 2021.05.14 14:14:01-04:0		Food & Freeh-	Digitally signed by F FERNANDEZ Date: 2021.05.17 11			
(Signature of person authorized to sign)	05/14/2021	(Signatur	e of Contracting Officer,	F.	05/17/2021	

14. DESCRIPTION OF AMENDMENT/MODIFICATION continued.

A. This modification is issued to update the following contract sections:

Contract Sections:

- a. Part III, Section J List of Attachments
 - Appendix I
- B. Table of Changes

PART III, SECTION J — LIST OF DOCUMENTS, EXHIBITS, ATTACHMENTS

Appendix	Title	Change & Explanation
I	DOE Directives/List B	Change: Update the following directives.
		DOE Oder 142.3B, Unclassified Foreign National Access Program, Issue Date 1/15/2021 Supersedes/Deletes DOE Order 142.3A Chg.2 (LtdChg.), Unclassified Foreign Visits and Assignments Program, dated 12/13/2019
		DOE Order 413.3B Chg 6 (MinChg), Program and Project Management for the Acquisition of Capital Assets, Issue Date 1/12/2021 Supersedes/Deletes DOE Order 413.3B Chg 5 (MinChg), Program and Project Management for the Acquisition of Capital Assets, dated 4/12/2018
		DOE Order 435.1 Chg 2 (AdminChg), Radioactive Waste Management, Issue Date 1/11/2021 Supersedes/Deletes DOE Order 435.1 Chg 1 (Pg. Chg), Radioactive Waste Management, dated 8/28/2001
		DOE Manual 435.1-1 Chg 3 (LtdChg), Radioactive Waste Management Manual, Issue Date 1/11/2021 Supersedes/Deletes DOE Manual 435.1-1 Change 2, Radioactive Waste Management Manual, dated 6/18/2011
		DOE Order 437.1, Bridge and Tunnel Management, Issue Date 12/11/2020 This is a new DOE Directive and does not Supersede or delete another Directive in the contract.
		Explanation: This appendix is replacing the prior version with the attached Appendix I identified as Modification No. 0186.

C. ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED.

END OF MODIFICATION

Contract No. DE-SC0012704
Section J | Appendix I
Modification No. 0188

APPENDIX I

DOE Directives/List B

Applicable to the Operations of Brookhaven National Laboratory

Contract No. DE-SC0012704 Section J | Appendix I Modification No. 0188

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.

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	Chg. 1 (Admin Chg.) 6/27/2013	Manual for Implementation of the Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
12/15/2006	Order	142.2A	Chg. 1 (Admin Chg.) 6/27/2013	Voluntary Offer Safeguards Agreement and Additional Protocol with the International Atomic Energy Agency
1/15/2021	Order	142.3B		Unclassified Foreign National Access Program
3/31/2014	Order	150.1A		Continuity Programs
8/11/2016 6/27/2007	Order Order	151.1D 153.1	Chg.1 (Minor Chg.) 10/4/2019	Comprehensive Emergency Management System 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
5/15/2019	Order	205.1C		Department of Energy Cyber Security Program
1/16/2009	Order	206.1	Chg.1 (Minor Chg.) 11/1/2018	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
12/21/2015	Order	227.1A	Chg. 1 (Admin Chg.) 1/21/2020	Independent Oversight Program
6/27/2011	Order	231.1B	Chg. 1 (Admin Chg.) 11/28/2012	Environment, Safety and Health Reporting
1/17/2017	Order	232.2A	Chg.1 (Minor Chg.) 10/04/2019	Occurrence Reporting and Processing of Operations Information

ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
12/13/2010	Order	241.1B	Chg. 1 (Admin Chg) 4/26/2016	Scientific and Technical Information Management
3/11/2013	Order	243.1B	Chg. 1 (Admin Chg.) 7/8/2013	Records Management Program
2/23/2011	Order	252.1A	Chg. 1 (Admin Chg.) 3/12/2013	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
9/30/1996	Order	350.1	Chg. 7 (LtdChg.) 2/19/2020	Contractor Human Resource Management Programs
8/17/2009	Order	410.2	Chg. 1 (Admin Chg.) 4/10/2014	Management of Nuclear Materials
1/4/2017	Order	411.2		Scientific Integrity
1/4/2017	Policy	411.2A		Scientific Integrity Policy
10/22/2015	Order	413.2C	Chg.1 (Minor Chg.) 8/2/2018	Laboratory Directed Research and Development
11/29/2010	Order	413.3B	Chg. 6 (Minor Chg.) 1/12/2021	Program and Project Management for the Acquisition of Capital Assets
4/25/2011	Order	414.1D	Chg. 2 (LtdChg.) 9/15/2020	Quality Assurance
12/3/2012	Order	415.1	Chg. 2 (Minor Chg.) 1/17/2017	Information Technology Project Management

		<u> </u>	TURQUEU	TITLE
ISSUED	TYPE	NUMBER	THROUGH CHANGE	Includes Compliance Notes as Necessary
12/4/2012	Order	420.1C	Chg.3 (Ltd Chg.) 11/14/2019	Facility Safety Compliance Note:CRD Chapters 1, 3, and 5 only are applicable to BNL Hazardous Category 1, 2, or 3 nuclear facilities. Currently these type of nuclear facilities do not exist at BNL. The requirements of DOE O 420. 1C Chg. 2 CRD Chapters 2 (Fire Protection) and 5 (Natural Phenomena Hazards Mitigation) apply to BNL
7/21/2011	Order	420.2C		Safety of Accelerator Facilities
6/29/2010	Order	422.1	Chg. 3 (Minor Chg.) 10/4/2019	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 approved by BHSO
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	Chg. 2 (Admin Chg.) 1/11/2021	Radioactive Waste Management
7/9/1999	Manual	435.1-1	Chg. 3 (LtdChg.) 1/11/2021	Radioactive Waste Management Manual
5/2/2011	Order	436.1		Departmental Sustainability
12/11/2020	Order	437.1		Bridge and Tunnel Management
6/15/2011	Order	440.2C	Chg. 2 (LtdChg.) 9/15/2020	Aviation Management and Safety
3/7/2008	Manual	441.1-1	Chg. 1 (Admin Chg.) 02/24/2016	Nuclear Material Packaging Manual
1/31/2019	Order	442.1B		Department of Energy Employee Concerns Program
7/29/2011	Order	442.2	Chg.1 (Pg.Chg.) 10/5/2016	Differing Professional Opinions for Technical Issues Involving Environment, Safety and Health
11/26/2019	Order	443.1C		Protection of Human Research Subjects
7/21/2011	Order	452.8		Control of Nuclear Weapon Data
7/15/2016	Order	456.1A		The Safe Handling of Unbound Engineered Nanoparticles

		<u> </u>	TUDOUGU	TITLE
ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
2/11/2011	Order	458.1	Chg. 4 (LtdChg.) 9/15/2020	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
11/23/2016	Order	470.3C	Chg. 1 (LtdChg.) 9/9/2020	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	Chg.1 (Minor Chg.) 1/11/2017	Technical Security Program
3/1/2010	Order	471.1B		Identification and Protection of Unclassified Controlled Nuclear Information
4/9/2003	Order	471.3	Chg. 1 (Admin Chg.) 1/13/2011	Identifying and Protecting Official Use Only Information
4/9/2003	Manual	471.3-1	Chg. 1 (Admin Chg.) 1/13/2011	Manual for Identifying and Protecting Official Use Only Information
6/20/2011	Order	471.6	Chg. 3 (Admin Chg.) 9/12/2019	Information Security
7/21/2011	Order	472.2	Chg. 1 (Pg Chg.) 7/9/2014	Personnel Security
3/23/2016	Order	473.3A	Chg.1 (Minor Chg.) 1/2/2018	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

ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
12/20/2018	Order	481.1E	Chg. 1 (LtdChg.) 12/13/2019	Strategic Partnership Projects [Formerly Known as Work for Others (Non-Department of Energy Funded Work)]
12/20/2016	Order	483.1B	Chg. 2 (LtdChg.) 12/13/2019	DOE Cooperative Research and Development Agreements
8/17/2006	Order	484.1	Chg. 2 (Admin Chg.) 6/30/2014	Reimbursable Work for the Department of Homeland Security
12/13/2019	Policy	485.1A		Foreign Engagements with DOE National Laboratories
9/4/2020	Order	486.1A		Foreign Government Sponsored or Affiliated Activities Compliance Note: BSA is developing a compliance implementation action plan to be approved by BHSO
1/7/2021	Order	520.1B		Financial Management and Chief Financial Officer Responsibilities
8/2/2018	Order	522.1A		Pricing of Departmental Materials and Services
5/2/2019	Order	550.1	Chg. 1 (LtdChg.) 12/13/2019	Official Travel
3/30/2012	Order	580.1A	Chg. 1 (Admin Chg.) 10/22/2012	Department of Energy Personal Property Management Program