AMENDMENT OF SOLICI	TATION/MODIFICATI	ION OF CONTRA	ACT	1. CONTR	ACT ID CODE	PAGE O	F PAGES
2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PU	RCHASE	REQ.	5. PROJECT NO		
		NO.				, ,,,	,
0175	See Block 16c	7 ADMINISTRA	N/ // ::	- u 4l · · · !'	() 0005	00005	
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U.S. Department of Energy		53 Bell Avenue		0,			
9800 South Cass Avenue		Upton NY 1197		ing to t			
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3. NAME AND ADDRESS OF CONTRAC	TOR (No. street, county, State	and ZIP Code)	(x)	9. A. AMEN	DMENT OF SOLI	ICITATION I	NO.
Brookhaven Science Asso	ociates. LLC			9. B. DATEI	D (SEE ITEM 11)		
Attn: Kevin Fox							
Brookhaven National Labo	oratory						
Building 460, PO Box 500	_			10. A. MOD	IFICATION OF C	ontract/Orde	er NO.
Upton New York 11973-56	000		Χ	DE-SC00	012704		
					ED (SEE ITEM 13	3)	
CODE 027579460	FACILITY CODE N/A			12/22/2			
11. T	HIS ITEM ONLY APPLIE	S TO AMENDME	NTS O	F SOLICI	TATIONS		
gram or letter makes reference to the solic 2. ACCOUNTING AND APPROPRIATION N/A		nd is received prior to th	e openin	g hour and o	date specified.		
13. THIS ITEM APPLIES ONLY TO MOD	IFICATIONS OF CONTRACTS	S/ORDERS ITMODIE		CONTRACT	/ORDER NO AS	DESCRIBE	D IN ITEM 44
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A. THIS CHANGE ORDER IS ISSI ORDER NO. IN ITEM 10A.	JED PURSUANT TO: (Specify	authority) THE CHANG	GES SET	FORTH IN	ITEM 14 ARE MA	ADE IN THE	CONTRACT
B. THE ABOVE NUMBERED CON	ITRACT/ORDER IS MODIFIED	D TO REFLECT THE A	DMINIS	TRATIVE CH	HANGES (such as	changes in	paying office,
appropriation date, etc.) SET F							
X FAR 43.103(a) Agreen							
D. OTHER (Specify type of modific		, , , , , , , , , , , , , , , , , , ,	<i>.</i>				
E. IMPORTANT: Contractor	is not, 🛛 is required to						
14. DESCRIPTION OF AMENDMENT/MO	ODIFICATION (Organized by U	ICF section heading, inc	cluding s	olicitation/co	ntract subject mat	tter where fe	easible.)
Coordinate Outbroads 2							
See pages 2 through 3.							
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15A. NAME AND TITLE OF SIGNER <i>(Ty)</i> George Clark	Fausto R.			ACTING OFFICEI	к ( <i>i ype or </i> ;	onnt)	
Chief Financial Officer		Contractin					
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNI				A 160	C. DATE SI	GNED
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George (lar	R						
/(Signature of person authorized to si	ign	(Signatui	re of Con	tracting Office	cer)		

### 14. DESCRIPTION OF AMENDMENT/MODIFICATION continued.

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

### **Contract Sections:**

- a. Part I, The Schedule Section F, Deliveries or Performance
- b. Part II, Section I Contract Clauses
- c. Part III, Section J List of Attachments, Appendix I

### **B.** Table of Changes

### PART I, SECTION F—DELIVERIES OR PERFORMANCE

Clause No.	Title	Change & Explanation
F.1	Period of Performance	Change: Update paragraph (a).  Explanation: The date of this paragraph is being updated to January 4, 2025 to reflect the 5 <sup>th</sup> year award term previously awarded in modification 0156.

## PART II, SECTION I - CONTRACT CLAUSES

Clause No.	Title	Change & Explanation
I.17C	FAR 52.204-25 Prohibition on Contracting for Certain Telecommunications	Change: Update clause.
	and Video Surveillance Services or Equipment (Aug 2019)	Explanation: This clause is being updated to amend section 52.204-25 by—
		a. Revising the date of the clause;
		b. In paragraph (a), adding in alphabetical order the definitions "Backhaul", "Interconnection arrangements", "Reasonable inquiry" and "Roaming";
		c. Revising paragraph (b); and
		d. Removing from paragraph (e) "this paragraph (e)" and adding "this paragraph (e) and excluding paragraph (b)(2)"
		IAW FAC 2020-08, in the Federal Register Vol. 85, No. 135 published July 14, 2020 and effective August 13, 2020.

1.88	FAR 52.244-6 Subcontracts for Commercial Items (Jun 2020)	Change: Update clause.
		Explanation: This clause is being updated to amend section 52.244-6 by—
		a. Revising the date of the clause; and
		b. Removing from paragraph (c)(1)(vi) "AUG 2019" and adding "AUG 2020" in its place.
		IAW FAC 2020-08, in the Federal Register 85 FR 42665 published July 14, 2020 and effective August 13, 2020.

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

### **APPENDIX I**

Appendix	Title	Change & Explanation
I	DOE Directives/List B	Change:
		Replace appendix.
		Explanation:
		This appendix is replacing the prior version with the
		attached Appendix I identified as Modification No. 0175.

# C. ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED. END OF MODIFICATION

# **SECTION F**

# **DELIVERIES OR PERFORMANCE**

# **TABLE OF CONTENTS**

F.1	PERIOD OF PERFORMANCE	1
F.2	AWARD TERM INCENTIVE	1
F.3	FAR 52.242-15 – STOP WORK ORDER (AUG 1989) (ALTERNATE I) (APR 1984)	4
F.4	STOP WORK AND SHUTDOWN AUTHORITY	5
F.5	PRINCIPAL PLACE OF PERFORMANCE	5

### F.1 PERIOD OF PERFORMANCE

- (a) This contract shall be effective as specified in Block No. 28 Award Date, of Standard Form 33, and shall continue up to and including January 4, 2025, unless sooner terminated according to its terms. The contract may be extended in accordance with Section F.2 entitled "Award Term Incentive".
- (b) The contract transition period is from award date through January 4, 2015. The Contractor will assume full operational control of the Laboratory on January 5, 2015.
- (c) The contract's maximum period of performance, including the transition period and award term(s), if earned, shall not exceed 20 years, two (2) months.

# CLAUSE I.17C – FAR 52.204-25 – PROHIBITION ON CONTRACTING FOR CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (AUG 2020)

(a) Definitions. As used in this clause—

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (*e.g.*, connecting cell phones/towers to the core telephone network). Backhaul can be wireless (*e.g.*, microwave) or wired (*e.g.*, fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means-

- (1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);
- (2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);
- (3) Telecommunications or video surveillance services provided by such entities or using such equipment; or
- (4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means-

- Defense articles or defense services included on the United States Munitions
   List set forth in the International Traffic in Arms Regulations under subchapter
   M of chapter I of title 22, Code of Federal Regulations;
- (2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled-

- (i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or
- (ii) For reasons relating to regional stability or surreptitious listening;
- (3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);
- (4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);
- (5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or
- (6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

### (b) Prohibition.

(1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending

or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

- (2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.
- (c) Exceptions. This clause does not prohibit contractors from providing—
  - (1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or
  - (2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.
- (d) Reporting requirement.
  - (1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <a href="https://dibnet.dod.mil">https://dibnet.dod.mil</a>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department

- of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <a href="https://dibnet.dod.mil">https://dibnet.dod.mil</a>.
- (2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause
  - (i) Within one business day from the date of such identification or notification: the contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.
  - (ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.
- (e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

# CLAUSE I.88 – FAR 52.244-6 - SUBCONTRACTS FOR COMMERCIAL ITEMS (AUG 2020)

(a) Definitions. As used in this clause—

Commercial item and commercially available off-the-shelf item have the meanings contained in Federal Acquisition Regulation (FAR) 2.101.

Subcontract includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or non-developmental items as components of items to be supplied under this contract.

(c)

- (1) The Contractor shall insert the following clauses in subcontracts for commercial items:
  - (i) <u>52.203-13</u>, Contractor Code of Business Ethics and Conduct (JUN 2020) (<u>41 U.S.C. 3509</u>), if the subcontract exceeds the threshold specified in FAR <u>3.1004</u>(a) on the date of subcontract award, and has a performance period of more than 120 days. In altering this clause to identify the appropriate parties, all disclosures of violation of the civil False Claims Act or of Federal criminal law shall be directed to the agency Office of the Inspector General, with a copy to the Contracting Officer.
  - (ii) <u>52.203-15</u>, Whistleblower Protections Under the American Recovery and Reinvestment Act of 2009 (Jun 2010) (Section 1553 of Pub. L. 111-5), if the subcontract is funded under the Recovery Act.
  - (iii) <u>52.203-19</u>, Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (JAN 2017).
  - (iv) <u>52.204-21</u>, Basic Safeguarding of Covered Contractor Information Systems (Jun 2016), other than subcontracts for commercially available off-the-shelf items, if flow down is required in accordance with paragraph (c) of FAR clause <u>52.204-21</u>.
  - (v) <u>52.204-23</u>, Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (Jul 2018) (Section 1634 of Pub. L. 115-91).

- (vi) <u>52.204-25</u>, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (Aug 2020) (Section 889(a)(1)(A) of Pub. L. 115-232).
- (vii) 52.219-8, Utilization of Small Business Concerns (OCT 2018) (15 U.S.C.637(d)(2) and (3)), if the subcontract offers further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds the applicable threshold specified in FAR 19.702(a) on the date of subcontract award, the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.
- (viii) 52.222-21, *Prohibition* Segregated Facilities (APR 2015).
- (ix) <u>52.222-26</u>, Equal Opportunity (*Sept* 2015) (E.O.11246).
- (x) <u>52.222-35</u>, Equal Opportunity for Veterans (Jun 2020) (38 U.S.C.4212(a));
- (xi) <u>52.222-36</u>, Equal Opportunity for Workers with Disabilities (Jun 2020) (29 U.S.C.793).
- (xii) <u>52.222-37</u>, Employment Reports on Veterans (Jun 2020) (38 U.S.C.4212).
- (xiii) <u>52.222-40</u>, Notification of Employee Rights Under the National Labor Relations Act (DEC 2010) (E.O. 13496), if flow down is required in accordance with paragraph (f) of FAR clause 52.222-40.
- (xiv)
- (A) <u>52.222-50</u>, Combating Trafficking in Persons (JAN 2019) (22 U.S.C. chapter 78 and E.O. 13627).
- (B) Alternate I (MAR 2015) of <u>52.222-50(22 U.S.C. chapter 78</u> and E.O. 13627).
- (xv) <u>52.222-55</u>, Minimum Wages under Executive Order 13658 (DEC 2015), if flow down is required in accordance with paragraph (k) of FAR clause 52.222-55.
- (xvi) <u>52.222-62</u>, Paid Sick Leave Under Executive Order 13706 (JAN 2017) (E.O. 13706), if flow down is required in accordance with paragraph (m) of FAR clause <u>52.222-62</u>.

(xvii)

- (A) <u>52.224-3</u>, Privacy Training (JAN 2017) (<u>5 U.S.C. 552a</u>) if flow down is required in accordance with <u>52.224-3</u>(f).
- (B) Alternate I (Jan 2017) of <u>52.224-3</u>, if flow down is required in accordance with <u>52.224-3</u>(f) and the agency specifies that only its agency-provided training is acceptable).
- (xviii) <u>52.225-26</u>, Contractors Performing Private Security Functions Outside the United States (OCT 2016) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).
- (xix) <u>52.232-40</u>, Providing Accelerated Payments to Small Business Subcontractors (DEC 2013), if flow down is required in accordance with paragraph (c) of FAR clause <u>52.232-40</u>.
- (xx) <u>52.247-64</u>, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (<u>46 U.S.C. App.1241</u> and <u>10 U.S.C.2631</u>), if flow down is required in accordance with paragraph (d) of FAR clause 52.247-64).
- (2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.
- (d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

Contract No. DE-SC0012704 Section J | Appendix I Modification No. 0175

## **APPENDIX I**

**DOE Directives/List B** 

Applicable to the Operations of Brookhaven National Laboratory

Contract No. DE-SC0012704 Section J | Appendix I Modification No. 0175

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

			THROUGH	TITLE
ISSUED	TYPE	NUMBER	CHANGE	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
10/14/2010	Order	142.3A	Chg.2 (LtdChg.) 12/13/2019	Unclassified Foreign Visits and Assignments 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

# Appendix I - Part I DOE DIRECTIVES LIST

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
10/28/2008	Order	413.1B		Internal Control Program
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. 5 (Minor Chg.) 4/12/2018	Program and Project Management for the Acquisition of Capital Assets
4/25/2011	Order	414.1D	Chg. 1 (Admin Chg.) 5/8/2013	Quality Assurance
12/3/2012	Order	415.1	Chg. 2 (Minor Chg.) 1/17/2017	Information Technology Project Management

# Appendix I - Part I DOE DIRECTIVES LIST

ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
			CHANGE	Facility Safety
12/4/2012	Order	420.1C	Chg.3 (Ltd Chg.) 11/14/2019	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. 1 (Pg Chg) 8/28/2001	Radioactive Waste Management
7/9/1999	Manual	435.1-1	Chg. 2 (Admin Chg.) 6/8/2011	Radioactive Waste Management Manual
5/2/2011	Order	436.1		Departmental Sustainability
6/15/2011	Order	440.2C	Chg. 1 (Admin Chg.) 6/22/2011	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
2/11/2011	Order	458.1	Chg. 3 (Admin Chg.) 1/15/2013	Radiation Protection of the Public and the Environment

# Appendix I - Part I DOE DIRECTIVES LIST

		1	TURQUEU	TITI E
ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
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		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
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)]

# Appendix I - Part I

## DOE DIRECTIVES LIST

ISSUED	TYPE	NUMBER	THROUGH CHANGE	TITLE Includes Compliance Notes as Necessary
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
6/7/2019	Order	486.1		Department of Energy Foreign Government Talent Recruitment Programs
8/2/2018	Order	522.1A		Pricing of Departmental Materials and Services
1/6/2003	Order	534.1B		Accounting
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