#### July 26, 2012

#### **VIA STRIPES**

The Office of Chief Operating Officer National Renewable Energy Laboratory (NREL) 15013 Denver West Parkway Golden, CO 80401

SUBJECT: Contract No. DE-AC36-08GO28308- Modification No. 549

To Whom it May Concern:

Subject Modification is hereby submitted for your review and execution. The purpose of this Modification is to:

- Delete and replace Section I, Clause I.16, 52.204-10 Reporting Executive Compensation and First-Tier Subcontract Awards (Feb 2012)
- II. Delete and replace Section J, Appendix A, Personnel
- III. Delete and replace Section J, Attachment B, Key Personnel
- IV. Delete and replace Section J, Attachment E, Applicable Law and Regulations (List A)
- V. Delete and replace Section J, Attachment F, Operating and Administrative Requirements (List B)
- VI. Delete and replace Section J, Attachment I, Subcontracts, Purchase Orders And Other Actions Requiring DOE Review And Approval And Other Agreements Between The Parties
- VII. Incorporate Section J, Attachment J, Performance Evaluation And Measurement Plan dated July 5, 2012
- VIII. Incorporate Section J, Attachment K, NREL's Diversity Plan CY2012

Please return one signed copy of the Modification to the Golden Field Office, attention Jessica Finley, by close-of-business, **August 26, 2012**.

If you have questions regarding this modification, please contact me at 720-356-1778.

Sincerely,

Jean M. Siekerka Contracting Officer

AMEND	MENT OF SOLICITATION/MODIFIC	CATION OF CONTRACT		1. CONTRACT ID CODE	PAGE OF PAGE	S
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	Department of Energy		l)	Department of Energy	•	
Golden	r Field Office	•	Gold	en Field Office		
1617 C	Cole Blvd.		1617	Cole Blvd.		
Golden	n CO 80401-3393		Gold	en CO 80401-3393		
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STANDARD FORM 30 (REV. 10-83) Prescribed by GSA FAR (48 CFR) 53.243

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NAME OF OFFEROR OR CONTRACTOR
ALLIANCE FOR SUSTAINABLE ENERGY, LLC

ITEM NO.	SUPPLIES/SERVICES	QUANTIT	1 E	UNIT PRICE	ŀ	AMOUNT
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	II.Delete and replace Section J, Appendix A, Personnel					
	III.Delete and replace Section J, Attachment B, Key Personnel					
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	July 5, 2012 VIII.Incorporate Section J, Attachment K, NREL's Diversity Plan CY2012					
	This Contract is to operate and manage the National Renewable Energy Laboratory. Delivery Location Code: 03601 Golden Field Office U.S. Department of Energy Golden Field Office 1617 Cole Blvd. Golden CO 80401-3393					
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This Modification incorporates the following significant changes to contract DE-AC36-08GO28308:

I. Section I, Clause I.16, 52.204-10 Reporting and Subcontract Awards (Sept 2007) is hereby deleted and replaced as follows

# I.16 52.204-10 Reporting Executive Compensation and First-Tier Subcontract Awards (Feb 2012)

a) Definitions. As used in this clause:

"Executive" means officers, managing partners, or any other employees in management positions.

"First-tier subcontract" means a subcontract awarded directly by a Contractor to furnish supplies or services (including construction) for performance of a prime contract, but excludes supplier agreements with vendors, such as long-term arrangements for materials or supplies that would normally be applied to a Contractor's general and administrative expenses or indirect cost.

"Total compensation" means the cash and noncash dollar value earned by the executive during the Contractor's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

- (1) Salary and bonus.
- (2) Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Financial Accounting Standards Boards' Accounting Standards Codification (FASB ASC) 718, Compensation-Stock Compensation.
- (3) Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
- (4) Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.
- (5) Above-market earnings on deferred compensation which is not tax-qualified.
- (6) Other compensation, if the aggregate value of all such other compensation (e.g., severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds \$10,000.
- (b) Section 2(d) of the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. No. 109-282), as amended by section 6202 of the Government Funding Transparency Act of

- 2008 (Pub. L. 110-252), requires the Contractor to report information on subcontract awards. The law requires all reported information be made public, therefore, the Contractor is responsible for notifying its subcontractors that the required information will be made public.
- (c)(1) Unless otherwise directed by the contracting officer, by the end of the month following the month of award of a first-tier subcontract with a value of \$25,000 or more, (and any modifications to these subcontracts that change previously reported data), the Contractor shall report the following information at <a href="http://www.fsrs.gov">http://www.fsrs.gov</a> for each first-tier subcontract. (The Contractor shall follow the instruction s at <a href="http://www.fsrs.gov">http://www.fsrs.gov</a> to report the data.)
  - (i) Unique identifier (DUNS Number) for the subcontractor receiving the award and for the subcontractor's parent company, if the subcontractor has a parent company.
  - (ii) Name of the subcontractor.
  - (iii) Amount of the subcontract award.
  - (iv) Date of the subcontract award.
  - (v) A description of the products or services (including construction) being provided under the subcontract, including the overall purpose and expected outcomes or results of the subcontract.
  - (vi) Subcontract number (the subcontract number assigned by the Contractor).
  - (vii) Subcontractor's physical address including street address, city, state, and country. Also include the nine-digit zip code and congressional district.
  - (viii) Subcontractor's primary performance location including street address, city, state, and country. Also include the nine-digit zip code and congressional district.
  - (ix) The prime contract number, and order number if applicable.
  - (x) Awarding agency name and code.
  - (xi) Funding agency name and code.
  - (xii) Government contracting office code.
  - (xiii) Treasury account symbol (TAS) as reported in FPDS.
  - (xiv) The applicable North American Industry Classification System code (NAICS).

- (2) By the end of the month following the month of a contract award, and annually thereafter, the Contractor shall report the names and total compensation of each of the five most highly compensated executives for the Contractor's preceding completed fiscal year in the Central Contractor Registration (CCR) database via <a href="https://www.acquisition.gov">https://www.acquisition.gov</a>, if—
  - (i) In the Contractor's preceding fiscal year, the Contractor received—
    - (A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
    - (B) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
  - (ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <a href="http://www.sec.gov/answers/execomp.htm">http://www.sec.gov/answers/execomp.htm</a>.)
- (3) Unless otherwise directed by the contracting officer, by the end of the month following the month of a first-tier subcontract with a value of \$25,000 or more, and annually thereafter, the Contractor shall report the names and total compensation of each of the five most highly compensated executives for each first-tier subcontractor for the subcontractor's preceding completed fiscal year at <a href="http://www.fsrs.gov">http://www.fsrs.gov</a>, if—
  - (i) In the subcontractor's preceding fiscal year, the subcontractor received—
    - (A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
    - (B) \$25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and
  - (ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at <a href="http://www.sec.gov/answers/execomp.htm">http://www.sec.gov/answers/execomp.htm</a>.)

- (d)(1) If the Contractor in the previous tax year had gross income, from all sources, under \$300,000, the Contractor is exempt from the requirement to report subcontractor awards.
  - (2) If a subcontractor in the previous tax year had gross income from all sources under \$300,000, the Contractor does not need to report awards to that subcontractor.
- (e) Phase-in of reporting of subcontracts of \$25,000 or more.
  - (1) Until September 30, 2010, any newly awarded subcontract must be reported if the prime contract award amount was \$20,000,000 or more.
  - (2) From October 1, 2010, until February 28, 2011, any newly awarded subcontract must be reported if the prime contract award amount was \$550,000 or more.
  - (3) Starting March 1, 2011, any newly awarded subcontract must be reported if the prime contract award amount was \$25,000 or more.
  - II. Section J, Appendix A, Personnel is hereby deleted and replaced as attached. Section J, Appendix A, Section 11. Travel and Relocation has been changed as requested and all other sections remain unchanged. (not posted)
  - III. Section J, Attachment B, Key Personnel is hereby deleted and replaced as follows

(not posted)

IV. Section J, Attachment E, Applicable Law and Regulations (List A) is hereby deleted and replaced as follows

# Attachment E Applicable Laws And Regulations (List A)

### Necessary and Sufficient Environmental, Safety and Health Standards Revised: 07/20/2012

CODE OF FEDERAL REGULATIONS (CFR)
7 CFR 340-Biotechnology Permits
10 CFR 8.4 - Interpretation by the General Counsel: AEC Jurisdiction
10 CFR 707 Workplace Substance Abuse Programs at DOE Sites
10 CFR 835 - Occupational Radiation Protection
10 CFR 851 – Worker Safety and Health Program
10 CFR 1008 Records Maintained on Individuals (Privacy Act)
10 CFR 1021 - DOE NEPA Implementing Regulations, Subtitle B - DOE Decision making
10 CFR 1021 - DOE NEPA Implementing Regulations, Subtitle D - Typical Classes of Actions (Including ref. Appendices A-D)
10 CFR Part 1022 Department of Energy Floodplain and Wetland Regulations
10 CFR 1046.11 Medical and Physical Fitness Qualification Standards
14 CFR 77; Objects Affecting Navigable Airspace
27 CFR Part 19; Distilled Spirits Plants
27 CFR Part 22; Distribution and Use of Tax-Free Alcohol
33 CFR 320 - General Regulatory Policies
33 CFR 323 - Permits for Discharges of Dredged or Fill Material into Waters of the United States
33 CFR 325 - Processing of Department of the Army Permits
33 CFR 328 - Definition of Waters of the United States
33 CFR 330 - Nationwide Permits
36 CFR 63 - Determination of Eligibility for Inclusion in the National Register of Historic Places
36 CFR 65 - National Historic Landmarks Program
36 CFR 78 - Waiver of Federal agency responsibilities under section 110 of the National Historic Preservation Act
36 CFR 79 - Curation of Federally-Owned and Administered Archaeological Collections.
36 CFR 800 - Protection of Historic and Cultural Properties
40 CFR 50 - National Primary and Secondary Ambient Air Quality Standards

40 CFR Parts 51, 52, 70, and 71 – Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule
40 CFR 60 – Standards of Performance for New Stationary Sources
40 CFR 61- National Emission Standards for Hazardous Air Pollutants
40 CFR 66 - Assessment and Collection of Noncompliance Penalties by EPA
40 CFR 79 - Registration of Fuels and Fuel Additives
40 CFR 82 - Protection of Stratospheric Ozone
40 CFR Parts 86, 87, 89, 90, 94, 98, 1033, 1039, 1042, 1045, 1051, 1054, and 1065 - Mandatory Reporting of
Greenhouse Gas
40 CFR 88 - Clean-Fuel Vehicles
40 CFR 110 - Discharge of Oil
40 CFR 112 - Oil Pollution Prevention
40 CFR 113 - Liability Limits for Small Onshore Storage Facilities
40 CFR 116 - Designation of Hazardous Substances
40 CFR 117 - Determination of Reportable Quantities for Hazardous Substances
40 CFR 122 - EPA Administered Permit Programs: The National Pollutant Discharge Elimination System (NPDES)
40 CFR 131 - Water Quality Standards
40 CFR 141 - National Primary Drinking Water Regulations
40 CFR 142 - National Primary Drinking Water Regulations Implementation
40 CFR 166 - Exemption of Federal and State Agencies for use of Pesticides under Emergency Conditions
40 CFR 171 - Certification of Pesticide Applicators
40 CFR 260-270 - Resource Conservation and Recovery Act (RCRA)
40 CFR 273 - Standards for Universal Waste Management
40 CFR 279 - Standards for the Management of Used Oil
40 CFR 302 - Designation, Reportable Quantities, and Notification (CERCLA)
40 CFR 355 - Emergency Planning and Notification (CERCLA)
40 CFR 370 - Hazardous Chemical Reporting: Community Right -To-Know
40 CFR 401 - General Provisions - Effluent Guideline and Standards
40 CFR 403 - General Pretreatment Regulations for Existing and New Sources of Pollution
40 CFR Parts 1500-1508 – Council on Environmental Quality Regulations for Implementing NEPA
48 CFR 970.5223 – Integration of Environment, Safety and Health into Work Planning and Execution
49 CFR 107-199 - Transportation - Hazardous Materials Regulations
49 CFR 382-399 - Transportation - Federal Motor Carrier Safety Regulations
50 CFR 17 - Endangered and Threatened Wildlife and Plants
50 CFR 402 - Interagency Cooperation - Endangered Species Act of 1973
50 CFR 450 - General Provisions - Endangered Species Exemption Process
50 CFR 451 - Application Process

UNITED STATES CODE (USC)
7 USC 136 et seq Environmental Pesticide Control Act
7 USC 136 et seq Federal Insecticide, Fungicide, and Rodenticide Act
7 USC 7701 Plant Protection Act 2000 (as amended by the Noxious Weed Control and Eradication Act 2004)
7 USC 2814 – Federal Noxious Weed Act of 1974 as amended
16 USC 431 et seq Antiquities Act of 1906
16 USC 470 et seq Archaeological Resources Protection Act of 1979 (ARPA)
16 USC 470 et seq National Historic Preservation Act of 1966 (NHPA)
16 USC 661 et seq Fish and Wildlife Coordination Act
16 USC 668 et seq Bald and Golden Eagle Protection Act
16 USC 703 et seq Migratory Bird Treaty Act
16 USC 1531 et seq Endangered Species Act of 1973
26 USC Chapter 51; Distilled Spirits, Wines, and Beer
33 USC 403 – Rivers and Harbors Act
33 USC 1251, et seq Clean Water Act
33 USC 1321 - Oil and Hazardous Substances Liability (Clean Water Act, Section 311)
42 USC Sec. 300f et seq Safe Drinking Water Act, and 42 USC 201 - Safe Drinking Water Act Amendments of 1996
42 USC 4321-4347 The National Environmental Policy Act of 1969, as amended
42 USC 6901 et seq Resource Conservation and Recovery Act (RCRA)
42 USC 7401 et seq Clean Air Act & Amendments
42 USC 9602 - CERCLA, Title I, Section 102 - Reportable Quantities and Additional Designations
42 USC 9603 - CERCLA, Title I, Section 103 - Notices, Penalties
42 USC 11000-11050 - Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA)
42 USC 13101-13109 - Pollution Prevention Act of 1990
42 USC 17094 Sec 438 – Storm Water Runoff Requirements for Federal Development Projects
EXECUTIVE ORDER (EO)
EO 11593 - Protection and Enhancement of Cultural Environment 1971
EO 11738 - Providing for Administration of the Clean Air Act and the Federal Water Pollution Control Act with
Respect to Federal Contracts, Grants or Loans EO 11988 - Floodplain Management
EO 11966 - Protection of Wetlands
EO 12114 - Environmental Effects Abroad of Major Federal Actions
EO 12898 - Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations
EO 13112 - Invasive Species 1999
EO 13112 - Invasive Species 1999  EO 13186 - Responsibilities of Federal Agencies to Protect Migratory Birds
EO 13423 – Strengthening Federal Environmental, Energy, and Transportation Management
LO 13723 — Strongtholding a coordi Environmontal, Enorgy, and Transportation Francesinone

TO 12514 E. L. H. Linkin Emission and Engage and Engagements
EO 13514 – Federal Leadership in Environmental, Energy, and Economic Performance
CODE OF COLORADO REGULATIONS (CCR)
2 CCR 402-2 - Water Well Construction
2 CCR 402-4 - Rules for Small Capacity Well Permits in Designated Ground Water Basins
2 CCR 402-10 – Geothermal Walls
2 CCR 406-8 Chapter 10, Article 2 and 3 - Non-Game Wildlife
5 CCR 1001. 1-20 - Colorado Department of Public Health & Environment, Air Quality Control Commission Regulations
5 CCR 1002-31 - Basic Standards and Methodologies for Surface Water
5 CCR 1002-41 - The Basic Standards for Groundwater
5 CCR 1002-42 - Site-Specific Water Quality Classifications and Standards for Ground Water (Rocky Flats Area)
5 CCR 1002-61 - Colorado Discharge Permit System Regulations
5 CCR 1002-62 - Regulations for Effluent Limits
5 CCR 1002-63 - Pretreatment Regulations
5 CCR 1002-65 - Regulations Controlling Discharges to Storm Sewers
5 CCR 1003 -1 - Primary Drinking Water Regulations
5 CCR 1003-6 - Guidelines on Individual Sewage Disposal Systems
6 CCR 1007-1, Part 1 - General Provisions
6 CCR 1007-1, Part 2 - Registration of Radiation Producing Machines
6 CCR 1007-1, Part 8 - Radiation Safety Requirements for Analytical X-Ray Equipment
6 CCR 1007-1, Part 10 - Notices, Instructions, and Reports to Workers: Inspections
6 CCR 1007-1, Part 17 - Transportation of Radioactive Material
6 CCR 1007-3, Colorado Hazardous Waste Regulations
7 CCR 1101-5, Colorado Boiler and Pressure Vessel Rule
7 CCR 1101-8, Conveyance Regulations
7 CCR 1101-14 – Underground Storage Tanks and Aboveground Storage Tanks
8 CCR 1507-1 - Colorado Operation of Commercial Vehicles and Transportation of Hazardous Materials
8 CCR 1507-25 – Rules and Regulations Concerning the Permitting, Routing & Transportation of Hazardous and Nuclear Materials and the Intrastate Transportation of Agricultural Products in the State of Colorado
COLORADO REVISED STATUTES (CRS)
8 CRS 20.5, Parts 1-3 - Petroleum Storage Tanks
9 CRS 4 – Boiler Inspection
25 CRS 7 - Air Quality Control
25 CRS 8 - Colorado Water Quality Control Act
25 CRS 10 - Individual Sewage Disposal Systems Act
25 CRS 15, Part 1, Part 3 - State Hazardous Waste Management Program
25 CRS 15, Part 1, Part 4 - Infectious Waste

29 CRS 22 - Hazardous Substances Incidents
33 CRS 2 - Nongame and Endangered Species Conservation
33 CRS 6 - Law Enforcement and Penalties
33 CRS 6-109 – Wildlife – Illegal possession
33 CRS 6-128 – Wildlife – Damage or destruction of dens or nests – harassment of wildlife
35 CRS 5 - Pest Control Districts
35 CRS 5.5 - Colorado Weed Management Act
35 CRS 9 - Pesticide Act
35 CRS 10 - Pesticide Applicators Act
37 CRS 90 - 101, et seq Colorado Ground Water Management Act
AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)
INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS
International Building Code (IBC) 2009
International Fire Code (IFC) 2009
INTERNATIONAL STANDARDS ORGANIZATION (ISO)
ISO 14001:2004, Environmental Management Systems
OTHER LOCAL STANDARDS
Consolidated Mutual Water Company Rules
Jefferson County Dept. of Health and Environment, Individual Sewage Disposal Sys. Reg.
Jefferson County Planning and Zoning Land Development Regulation, Section 18 (Drainage) and Section 20
(Floodplain)
Jefferson County Planning and Zoning Storm Drainage and Technical Criteria
Jefferson County Department of Health and Environment, Ozone-Depleting Substance Equipment Inspection
Metro Wastewater Reclamation District Rules and Regulations
Pleasant View Water and Sanitation District Rules and Regulations
West Metro Fire Rescue Amendments to the International Fire Code

V. Section J, Attachment F, OPERATING AND ADMINISTRATIVE REQUIREMENTS (LIST B) is deleted and replaced as follows to reflect deletions and additional DOE Directives:

### SECTION J - LIST OF DOCUMENTS, EXHIBITS AND OTHER ATTACHMENTS

# OPERATING AND ADMINISTRATIVE REQUIREMENTS (LIST B) Prime Contract No. DE-AC36-08GO28308

Prime Contract No. DE-AC36-08GO28308

The operating and administrative requirements, including the Contractor Requirements Documents of DOE directives listed below are applicable in whole or in part in accordance with clauses H-18 Application of DOE Contractor Requirements Documents and 970.5204-2, Laws, Regulations, and DOE Directives (DEC 2000). The concurrence analysis documenting applicability for each requirement below is maintained in the DOE Master File as well as any assurances as required by Clause H-18, are made a part of this Contract by reference and are managed through a formal change control process.

Operating and Administrative Requirements	Applicability
DOE O 130.1 CRD	CRD applicable in
Budget Formulation	whole
Approved: 09/29/95	
DOE O 142.3A CRD	CRD applicable in
Unclassified Foreign Visits and Assignments Program	whole
Approved: 10/14/2010	·
DOE O 151.1C CRD	CRD applicable in
Comprehensive Emergency Management System	whole
Approved: 11/02/05	
DOE O 200.1A	CRD applicable in
Information Technology Management	whole
Approved: 12/23/2008	
DOE N 203.1 CRD	CRD applicable in
Software Quality Assurance	whole
Approved: 10/02/00	
DOE O 205.1B CRD	CRD applicable in part
Department of Energy Cyber Security Program	
Approved: 05/16/11	
DOE N 206.3 CRD	CRD applicable in part
Personal Identity Verification	
Approved: 11/22/05	
(DOE N 251.67 extends DOE N 206.3 until 03/22/07)	
DOE O 210.2A CRD	CRD applicable in
DOE Corporate Operating Experience Program	whole
Approved: 04/08/11	

Operating and Administrative Requirements	Applicability
DOE O 221.1A CRD	CRD applicable in
Reporting Fraud, Waste, and Abuse to the Office of Inspector General	whole
Approved: 04/19/08	
DOE O 221.2 CRD	CRD applicable in
Cooperation with the Office of Inspector General	whole
Approved: 03/22/01	
DOE O 225.1B CRD	CRD applicable in
Accident Investigations	whole
Approved: 03/04/11	•
DOE O 226.1B CRD	CRD applicable in
Implementation of Department of Energy Oversight Policy	whole
Approved 04/25/11	
DOE O 227.1 CRD	CRD applicable in
Independent Oversight Program	whole
Approved: 08/30/11	
DOE M 231.1-1A CRD	CRD applicable in
Change 2	whole
Environment, Safety and Health Reporting Manual	
Approved: 03/19/04	
Change 2: 06/12/07	
DOE O 232.2 CRD	CRD applicable in
Occurrence Reporting and Processing of Operations Information	whole
Approved: 08/30/11	
DOE O 241,1B CRD	CRD applicable in
Scientific and Technical Information Management	whole
Approved: 12/13/10	
DOE O 243.1A CRD	CRD applicable in
Records Management Program	whole
Approved: 11/07/11	,,,11512
DOE O 243.2 CRD	CRD applicable in
Vital Records	whole
Approved: 02/02/06	
DOE O 350.1 CRD(s)	CRD applicable in
Change 1	whole
Contractor Human Resource Management Programs	WHOIG
Approved: 09/30/96	
Change 1: 05/08/98	
DOE O 350.2B CRD	CRD applicable in
Use of Management and Operating or Other Facility Management Contractor	whole
Employees for Services to DOE in Washington, D.C. Area	1733030
Approved: 05/31/11	
DOE O 412.1 CRD	CRD applicable in
Work Authorization System	whole
Approved: 04/20/99	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
DOE O 413,1A CRD	CRD applicable in
	whole
Management Control Program	WHOIC
Approved: 04/18/02	I

Operating and Administrative Requirements	Applicability
DOE O 413,2B CRD	CRD applicable in
Laboratory Directed Research and Development	whole
Approved: 04/19/06	
DOE O 413.3B CRD	CRD applicable in
Program and Project Management for the Acquisition of Capital Assets	whole
Approved: 11/29/2010	
DOE O 414.1D CRD	CRD applicable in part
Quality Assurance	
Approved: 04/25/11	
DOE O 430.1B CRD Change 2	CRD applicable in
Real Property Asset Management	whole
Approved: 09/24/03	
DOE O 430.2A CRD	CRD applicable in
Departmental Energy and Utilities Management	whole
Approved: 04/15/02	WHOLE
DOE O 436.1 CRD	CRD is applicable in
	whole
Departmental Sustainability	whole
Approved: 05/02/11  DOE O 442.1A CRD	CRD applicable in
	whole
Department of Energy Employee Concerns Program	WHOIE
Approved: 06/06/01	CDD andiashlain
DOE O 442.2 CRD	CRD applicable in
Differing Professional Opinions for Technical Issues Involving	whole
Environmental, Safety, and Health Technical Concerns	
Approved: 07/29/11	CDD1'1-1
DOE O 450.1A CRD	CRD applicable in
Environmental Protection Program	whole
Approved: 06/04/08	CDD 1' 11 '
DOE M 450.4-1 CRD	CRD applicable in
Integrated Safety Management System Manual	whole
Approved: 11/01/06	
DOE O 456.1 CRD	CRD applicable in part
The Safe Handling of Unbound Engineered Nanoparticles	
Approved: 05/31/11	
DOE O 458.1 Chg 2	CRD applicable in part
Radiation Protection of the Public and the Environment	
Approved: 06/06/11	
DOE M 470,4-2 CRD	CRD applicable in part
Change 1	
Physical Protection	
Approved: 08/26/05	
Change 1: 03/07/06	
DOE M 470.4-3 CRD	CRD applicable in part
Change 1	
Protective Force	
Approved: 08/26/05	·
Change 1: 03/07/06	

Operating and Administrative Requirements	Applicability
DOE O 470.4B CRD	CRD applicable in part
Safeguards and Security Program	
Approved: 07/21/11	74 PV (10 PV )
DOE O 471.3 CRD	CRD applicable in
Identifying and Protecting Official Use Only Information	whole
Approved: 04/09/03	
DOE M 471.3-1 CRD	CRD applicable in
Manual for Identifying and Protecting Official Use Only Information	whole
Approved: 04/09/03	
DOE O 472.2 CRD	CRD applicable in part
Personnel Security	
Approved: 07/21/11	
DOE O 475.1 CRD	CRD applicable in
Counterintelligence Program	whole
Approved: 12/10/04	
DOE O 482.1 CRD	CRD applicable in
DOE Facilities Technology Partnering Programs	whole
Approved: 01/12/01	
DOE O 483.1 CRD	CRD applicable in
DOE Cooperative Research and Development Agreements	whole
Approved: 01/12/01	
DOE O 484.1 CRD	CRD applicable in
Reimbursable Work for the Department of Homeland Security	whole
Approved: 08/17/06	
DOE O 522.1 CRD	CRD applicable in
Pricing of Departmental Materials and Services	whole
Approved: 11/03/04	
DOE O 534.1B CRD	CRD applicable in
Accounting	whole
Approved: 01/06/03	
DOE O 551.1D CRD	CRD applicable in
Official Foreign Travel	whole
Approved: 04/02/12	
DOE O 580.1A CRD	CRD applicable in
Department of Energy Personal Property Management Program	whole
Approved: 03/30/12	

## Summary of Modifications to Attachment F Operating and Administrative Requirements Mod 549

Deleted	DOE O 243.1	CRD applicable in
	Records Management Program	whole
PARAMATA	Approved: 02/03/06	
Added	DOE O 243.1A	CRD applicable in
	Records Management Program	whole
	Approved: 11/07/11	

Deleted	DOE O 551.1C CRD	CRD applicable in
	Official Foreign Travel	whole
	Approved: 06/24/08	
Added	DOE O 551.1D CRD	CRD applicable in
	Official Foreign Travel	whole
	Approved: 04/02/12	
Deleted	DOE O 580.1 CRD	CRD applicable in
	Department of Energy Personal Property Management	whole
	Program	
	Approved: 12/07/05	
Added	DOE O 580.1A CRD	CRD applicable in
	Department of Energy Personal Property Management	whole
	Program	
	Approved: 03/30/12	

- VI. Section J, Attachment I, Subcontracts, Purchase Orders And Other Action Requiring DOE Review And Approval And Other Agreements Between The Parties is hereby deleted and replaced as follows (not posted)
- VII. Section J, Attachment J, Performance Evaluation And Measurement Plan dated July 5, 2012 is hereby incorporated into this contract by reference. (not posted)
- VIII. Section J, Attachment K, NREL's Diversity Plan CY2012 is hereby incorporated into this contract by reference. (not posted)
- **IX.** All other terms and conditions of the contract remain the same.