

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>		1. CONTRACT ID CODE	PAGE OF PAGES 1   12
2. AMENDMENT/MODIFICATION NO. 0970	3. EFFECTIVE DATE See Block 16C	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)
6. ISSUED BY Berkeley Site Office U.S. Department of Energy Berkeley Site Office One Cyclotron Rd., MS90-1023 Berkeley CA 94720	CODE 06008	7. ADMINISTERED BY (If other than Item 6) Berkeley Site Office U.S. Department of Energy One Cyclotron Rd., MS90-1023 Berkeley CA 94720	CODE 06008
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) THE REGENTS OF THE UNIVERSITY OF CALIFORNIA Attn: ANDREW BOULTER 1111 FRANKLIN ST 11TH FL OAKLAND CA 94607		(x) 9A. AMENDMENT OF SOLICITATION NO.	9B. DATED (SEE ITEM 11)
CODE 003985512	FACILITY CODE	X 10A. MODIFICATION OF CONTRACT/ORDER NO. DE-AC02-05CH11231	10B. DATED (SEE ITEM 13) 04/19/2005

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)

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

CHECK ONE	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: FAR 43.103(a)
	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 headings, including solicitation/contract subject matter where feasible.)

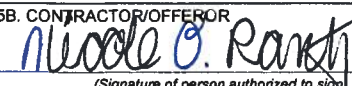

Tax ID Number: 94-3067788

DUNS Number: 003985512

The purpose of this modification is to update Sections H and I. See SF30 continuation pages for details.

THIS PERFORMANCE-BASED MANAGEMENT CONTRACT (P BMC) IS FOR THE MANAGEMENT AND OPERATION OF THE ERNEST ORLANDO LAWRENCE BERKELEY NATIONAL LABORATORY (LBNL). THE CONTRACTOR SHALL IN ACCORDANCE WITH THE PROVISIONS OF THIS CONTRACT ACCOMPLISH THE MISSIONS AND PROGRAMS ASSIGNED BY THE U.S. DEPARTMENT OF ENERGY (DOE) AND MANAGE AND OPERATE THE LABORATORY. THE LABORATORY IS ONE OF THE DOE'S OFFICE OF SCIENCE (SC) MULTI-PROGRAM LABORATORIES. THE  
Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) Nicole O. Rantz, Associate Director Business and Contracts	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Maria C. Robles
15B. CONTRACTOR/OFFICER  (Signature of person authorized to sign)	15C. DATE SIGNED 9/28/10
16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED  
DE-AC02-05CH11231/0970

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NAME OF OFFEROR OR CONTRACTOR  
THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>LABORATORY IS A FEDERALLY FUNDED RESEARCH AND DEVELOPMENT CENTER (FFRDC) ESTABLISHED IN ACCORDANCE WITH THE FEDERAL ACQUISITION REGULATION (FAR) PART 35 AND OPERATED UNDER THIS MANAGEMENT AND OPERATING (M&amp;O) CONTRACT AS DEFINED IN FAR 17.6 AND DEAR 917.6.</p> <p>Payment:     Payment - Direct Payment     from U.S. Dept of Treasury Period of Performance: 06/01/2005 to 05/31/2020</p>				

Block 14 continued:

1. Clause H.52 Multifactor Authentication for Contractor Information Systems is added as follows:

H.52 - MULTIFACTOR AUTHENTICATION FOR CONTRACTOR INFORMATION SYSTEMS (JUN 2016)

The Contractor shall take actions to achieve multifactor authentication (MFA) for standard and privileged user accounts of all classified and unclassified networks by September 30, 2016. Any delays that are due to DOE's failure to provide adequate Government Furnished Equipment in a timely manner will be taken into account in assessing the accomplishment of this requirements.

2. Clause I.29D 52.223-11 Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons is modified to add requirements of the Clean Air Act.

I.29D - FAR 52.223-11 Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons (JUN 2016)

- (a) Definitions. As used in this clause--

Global warming potential means how much a given mass of a chemical contributes to global warming over a given time period compared to the same mass of carbon dioxide. Carbon dioxide's global warming potential is defined as 1.0.

High global warming potential hydrofluorocarbons means any hydrofluorocarbons in a particular end use for which EPA's Significant New Alternatives Policy (SNAP) program has identified other acceptable alternatives that have lower global warming potential. The SNAP list of alternatives is found at 40 CFR part 82, subpart G, with supplemental tables of alternatives available at (<http://www.epa.gov/snap/>).

Hydrofluorocarbons means compounds that only contain hydrogen, fluorine, and carbon.

Ozone-depleting substance means any substance the Environmental Protection Agency designates in 40 CFR part 82 as—

- (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or
- (2) Class II, including, but not limited to, hydrochlorofluorocarbons.

- (b) The Contractor shall label products that contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), (d), and (e) and 40 CFR part 82, subpart E, as follows:

Warning: Contains (or manufactured with, if applicable) \* \_\_\_\_\_, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere.

\* The Contractor shall insert the name of the substance(s).

- (c) Reporting. For equipment and appliances that normally each contain 50 or more pounds of hydrofluorocarbons or refrigerant blends containing hydrofluorocarbons, the Contractor shall—

- (1) Track on an annual basis, between October 1 and September 30, the amount in pounds of hydrofluorocarbons or refrigerant blends containing hydrofluorocarbons contained in the equipment and appliances delivered to the Government under this contract by--

(i) Type of hydrofluorocarbon (e.g., HFC-134a, HFC-125, R-410A, R-404A, etc.);

(ii) Contract number; and

(iii) Equipment/appliance;

- (2) Report that information to the Contracting Officer for FY16 and to [www.sam.gov](http://www.sam.gov), for FY17 and after--

(i) Annually by November 30 of each year during contract performance; and

(ii) At the end of contract performance.

- (d) The Contractor shall refer to EPA's SNAP program (available at <http://www.epa.gov/snap>) to identify alternatives. The SNAP list of alternatives is found at 40 CFR part 82, subpart G, with supplemental tables available at <http://www.epa.gov/snap>.

(End of clause)

3. Clause I.30 -52.223-12 Maintenance, Service, Repair, or Disposal of Refrigeration Equipment and Air Conditioners is modified to add requirements of the Clean Air Act.

I.30 - FAR 52.223-12 MAINTENANCE, SERVICE, REPAIR, OR DISPOSAL OF REFRIGERATION EQUIPMENT AND AIR CONDITIONERS (JUN 2016)

(a) Definitions. As used in this clause--

Global warming potential means how much a given mass of a chemical contributes to global warming over a given time period compared to the same mass of carbon dioxide. Carbon dioxide's global warming potential is defined as 1.0.

High global warming potential hydrofluorocarbons means any hydrofluorocarbons in a particular end use for which EPA's Significant New Alternatives Policy (SNAP) program has identified other acceptable alternatives that have lower global warming potential. The SNAP list of alternatives is found at 40 CFR part 82, subpart G, with supplemental tables of alternatives available at (<http://www.epa.gov/snap/>).

Hydrofluorocarbons means compounds that contain only hydrogen, fluorine, and carbon.

- (b) The Contractor shall comply with the applicable requirements of sections 608 and 609 of the Clean Air Act (42 U.S.C. 7671g and 7671h) as each or both apply to this contract.
- (c) Unless otherwise specified in the contract, the Contractor shall reduce the use, release, or emissions of high global warming potential hydrofluorocarbons under this contract by—
- (1) Transitioning over time to the use of another acceptable alternative in lieu of high global warming potential hydrofluorocarbons in a particular end use for which EPA's SNAP program has identified other acceptable alternatives that have lower global warming potential.
  - (2) Preventing and repairing refrigerant leaks through service and maintenance during contract performance;
  - (3) Implementing recovery, recycling, and responsible disposal programs that avoid release or emissions during equipment service and as the equipment reaches the end of its useful life; and
  - (4) Using reclaimed hydrofluorocarbons, where feasible.
- (d) For equipment and appliances that normally each contain 50 or more pounds of hydrofluorocarbons or refrigerant blends containing

hydrofluorocarbons, that will be maintained, serviced, repaired, or disposed under this contract, the Contractor shall--

- (1) Track on an annual basis, between October 1 and September 30, the amount in pounds of hydrofluorocarbons or refrigerant blends containing hydrofluorocarbons added or taken out of equipment or appliances under this contract by--
  - (i) Type of hydrofluorocarbon (e.g., HFC-134a, HFC-125, R-410A, R-404A, etc.);
  - (ii) Contract number;
  - (iii) Equipment/appliance; and
- (2) Report that information to the Contracting Officer for FY16 and to [www.sam.gov](http://www.sam.gov), for FY17 and after--
  - (i) No later than November 30 of each year during contract performance; and
  - (ii) At the end of contract performance.
- (e) The Contractor shall refer to EPA's SNAP program to identify alternatives. The SNAP list of alternatives is found at 40 CFR part 82, subpart G, with supplemental tables available at <http://www.epa.gov/snap/>.

(End of clause)

4. Clause I.50 - FAR 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS is modified to define "Commercial Item" add a new paragraph 52.204-21, Basic Safeguarding of Covered Contractor Information Systems (June, 2016), other than subcontracts for commercially available off-the-shelf items, if flow down is required in accordance with paragraph (c) of FAR clause 52.204-21.

I.50 - FAR 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (JUN 2016)

- (a) Definitions. As used in this clause—

"Commercial item and commercially available off-the-shelf item" have the meanings contained Federal Acquisition Regulation 2.101, Definitions.

"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) 52.203-13, Contractor Code of Business Ethics and Conduct (Oct 2015) (41 U.S.C. 3509), if the subcontract exceeds \$5.5 million 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) 52.203-15, 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) 52.204-21, Basic Safeguarding of Covered Contractor Information Systems (June, 2016), other than subcontracts for commercially available off-the-shelf items, if flow down is required in accordance with paragraph (c) of FAR clause 52.204-21.
  - (iv) 52.219-8, Utilization of Small Business Concerns (Oct 2014) (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 \$700,000 (\$1.5 million for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.
  - (v) 52.222-21, Prohibition of Segregated Facilities (Apr 2015).
  - (vi) 52.222-26, Equal Opportunity (Apr 2015) (E.O. 11246).
  - (vii) 52.222-35, Equal Opportunity for Veterans (Oct 2015) (38 U.S.C. 4212(a));
  - (viii) 52.222-36, Equal Opportunity for Workers with Disabilities (Jul 2014) (29 U.S.C. 793).

- (ix) 52.222-37, Employment Reports on Veterans (Oct 2015) (38 U.S.C. 4212)
- (x) 52.222-40, 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.
- (xi) (A) 52.222-50, Combating Trafficking in Persons (Mar 2015) (22 U.S.C. chapter 78 and E.O. 13627).  
(B) Alternate I (Mar 2015) of 52.222-50 (22 U.S.C. chapter 78 and E.O. 13627).
- (xii) 52.222-55, Minimum Wages under Executive Order 13658 (Dec 2015).
- (xiii) 52.225-26, Contractors Performing Private Security Functions Outside the United States (Jul 2013) (Section 862, as amended, of the National Defense Authorization Act for Fiscal Year 2008; 10 U.S.C. 2302 Note).
- (xiv) 52.232-40, Providing Accelerated Payments to Small Business Subcontractors (Dec 2013), if flow down is required in accordance with paragraph (c) of FAR clause 52.232-40.
- (xv) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. App. 1241 and 10 U.S.C. 2631), 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.

5. Clause I.80 DEAR 970.5204-3 Access to and Ownership of Records is modified to reflect the changes in Policy Flash 2015-23.

I.80 - DEAR 970.5204-3 ACCESS TO AND OWNERSHIP OF RECORDS (OCT 2014) (DEVIATION PER POLICY FLASH 2015-23)



- (a) Government-owned records. Except as provided in paragraph (b) of this clause, all records acquired or generated by the **contractor** in its performance of this contract, including records series described within the contract as Privacy Act systems of records, shall be the property of the Government and shall be maintained in accordance with 36 Code of Federal Regulations (CFR), Chapter XII, -- Subchapter B, "Records Management." The contractor shall ensure records classified as Privacy Act system of records are maintained in accordance with FAR 52.224.2 "Privacy Act."
- (b) Contractor-owned records. The following records are considered the property of the **contractor** and are not within the scope of paragraph (a) of this clause.
- (1) Employment-related records (such as worker's compensation files; employee relations records, records on salary and employee benefits; drug testing records, labor negotiation records; records on ethics, employee concerns; records generated during the course of responding to allegations of research misconduct; records generated during other employee related investigations conducted under an expectation of confidentiality; employee assistance program records; and personnel and medical/health-related records and similar files), and non-employee patient medical/health-related records, except those records described by the contract as being **operated and maintained by the Contractor** in Privacy Act system of records.
  - (2) Confidential contractor financial information, **internal corporate governance records** and correspondence between the **contractor** and other segments of the **contractor** located away from the DOE facility (i.e., the **contractor's** corporate headquarters);
  - (3) Records relating to any procurement action by the **contractor**, except for records that under 48 CFR 970.5232-3 are described as the property of the Government; and
  - (4) Legal records, including legal opinions, litigation files, and documents covered by the attorney-client and attorney work product privileges; and
  - (5) The following categories of records maintained pursuant to the technology transfer clause of this contract:
    - (i) Executed license agreements, including exhibits or appendices containing information on royalties, royalty rates,

other financial information, or commercialization plans, and all related documents, notes and correspondence.

- (ii) The [contractor's](#) protected Cooperative Research and Development Agreement (CRADA) information and appendices to a CRADA that contain licensing terms and conditions, or royalty or royalty rate information.
  - (iii) Patent, copyright, mask work, and trademark application files and related [contractor](#) invention disclosures, documents and correspondence, where the [contractor](#) has elected rights or has permission to assert rights and has not relinquished such rights or turned such rights over to the Government.
- (c) Contract completion or termination. [Upon contract completion or termination, the contractor shall ensure final disposition of all Government-owned records to a Federal Record Center, the National Archives and Records Administration, to a successor contractor, its designee, or other destinations, as directed by the Contracting Officer. Upon the request of the Government, the contractor shall provide either the original contractor-owned records or copies of the records identified in paragraph \(b\) of this clause, to DOE or its designees, including successor contractors. Upon delivery, title to such records shall vest in DOE or its designees, and such records shall be protected in accordance with applicable federal laws \(including the Privacy Act\) as appropriate. If the contractor chooses to provide its original contractor-owned records to the Government or its designee, the contractor shall retain future rights to access and copy such records as needed.](#)
- (d) Inspection, copying, and audit of records. All records acquired or generated by the Contractor under this contract in the possession of the Contractor, including those described at paragraph (b) of this clause, shall be subject to inspection, copying, and audit by the Government or its designees at all reasonable times, and the Contractor shall afford the Government or its designees reasonable facilities for such inspection, copying, and audit; provided, however, that upon request by the Contracting Officer, the Contractor shall deliver such records to a location specified by the Contracting Officer for inspection, copying, and audit. The Government or its designees shall use such records in accordance with applicable federal laws (including the Privacy Act), as appropriate.
- (e) Applicability. [This clause applies to all records created, received and maintained by the contractor without regard to the date or origination of such records including all records acquired from a predecessor contractor.](#)

- (f) Records maintenance and retention. Contractor shall create, maintain, safeguard, and disposition records in accordance with 36 Code of Federal Regulations (CFR), Chapter XII, -- Subchapter B, "Records Management" and the National Archives and Records Administration (NARA)-approved Records Disposition Schedules. Records retention standards are applicable for all classes of records, whether or not the records are owned by the Government or the contractor. The Government may waive application of the NARA-approved Records Disposition Schedules, if, upon termination or completion of the contract, the Government exercises its right under paragraph (c) of this clause to obtain copies of records described in paragraph (b) and delivery of records described in paragraph (a) of this clause.
- (g) Subcontracts.
- (1) The contractor shall include the requirements of this clause in all subcontracts that contain the Radiation Protection and Nuclear Criticality clause at 952.223-72, or whenever an on-site subcontract scope of work (i) could result in potential exposure to: A) radioactive materials; B) beryllium; or C) asbestos or (ii) involves a risk associated with chronic or acute exposure to toxic chemicals or substances or other hazardous materials that can cause adverse health impacts, in accordance with 10 CFR part 851. In determining its flow-down responsibilities, the Contractor shall include the requirements of this clause in all on-site subcontracts where the scope of work is performed in: (A) Radiological Areas and/or Radioactive Materials Areas (as defined at 10 CFR 835.2); (B) areas where beryllium concentrations exceed or can reasonably be expected to exceed action levels specified in 10 CFR 850; (C) an Asbestos Regulated area (as defined at 29 CFR 1926.1101 or 29 CFR 1910.1001); or (D) a workplace where hazard prevention and abatement processes are implemented in compliance with 10 CFR 851.21 to specifically control potential exposure to toxic chemicals or substances or other hazardous materials that can cause long term health impacts.
- (2) The Contractor may elect to take on the obligations of the provisions of this clause in lieu of the subcontractor, and maintain records that would otherwise be maintained by the subcontractor.

(End of clause)

6. All other terms and conditions remained unchanged.