ORDER FOR SUPPLIES OR SERVICES

PAGE 1 OF 9 PAGES

IMPORTANT: Mark all packages and papers with contract and/or order numbers. BPA NO.

1. DATE OF ORDER: 11/29/2010
2. CONTRACT NO. (If any):
3. ORDER NO.: NRC-DR-42-11-002
MODIFICATION NO.:
4. REQUISITION/REFERENCE NO.: NRO-11-002 DTD 8/26/10+10/20/10

5. ISSUING OFFICE (Address correspondence to)
U.S. Nuclear Regulatory Commission
Div. of Contracts
Attn: Jerry Purcell Jr.
Mail Stop: TWB-01-B10M
Washington, DC 20555

6. SHIP TO:
a. NAME OF CONSIGNEE: U.S. Nuclear Regulatory Commission
b. STREET ADDRESS:
c. CITY: Washington
d. STATE: DC
e. ZIP CODE: 20555

7. TO:
a. NAME OF CONTRACTOR
UNIVERSITY OF MARYLAND
OFFICE OF RESEARCH ADMINISTRATION & ADVANCEMENT
b. COMPANY NAME
c. STREET ADDRESS: 3112 LEE BUILDING
d. CITY: COLLEGE PARK
e. STATE: MD
f. ZIP CODE: 207425100

f. SHIP VIA:

8. TYPE OF ORDER
[X] a. PURCHASE
REFERENCE YOUR _____
Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.
[ ] b. DELIVERY
Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.

9. ACCOUNTING AND APPROPRIATION DATA
BB&R: 2011-25-17-4-101 JC: Q4281 BOC: 252A APPN: 0200
FFS#: 110254 Amount Obligated: $92,177.00

10. REQUISITIONING OFFICE: NRO
Office of New Reactors

11. BUSINESS CLASSIFICATION (Check appropriate box(es))
[ ] a. SMALL [ ] b. OTHER THAN SMALL [ ] c. DISADVANTAGED [ ] g. SERVICE-DISABLED VETERAN-OWNED
[ ] d. WOMEN-OWNED [ ] e. HUBZone [ ] f. EMERGING SMALL BUSINESS

12. F.O.B. POINT: N/A

13. PLACE OF
a. INSPECTION
b. ACCEPTANCE

14. GOVERNMENT B/L NO.

15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)

16. DISCOUNT TERMS

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	Intergovernmental Personnel Act support for eleven months	[redacted]	MOS	[redacted]	[redacted]	
0002	Intergovernmental Personnel Act support for one month	[redacted]	MOS	[redacted]	[redacted]	
0003	Intergovernmental Personnel Act support for eleven months	[redacted]	MOS	[redacted]	[redacted]	
0004	Intergovernmental Personnel Act support for one month	[redacted]	MOS	[redacted]	[redacted]	

Period of Performance is 24 months. All project support will be conducted in accordance with the attached Statement of Work (SOW).

The NRC Project Officer is Donald Carlson;
PH: 301-415-0109; email: Donald.Carlson@nrc.gov

Contractor Signature: Monique Anderson Date: 12/7/10

AUTHORIZING UNIVERSITY OFFICIAL
Monique Anderson, Asst. Director
Research Administration & Advancement
University of Maryland, College Park, MD 20742
Phone 301-405-6269/Fax 301-314-9569
Email orsa@umd.edu

18. SHIPPING POINT
19. GROSS SHIPPING WEIGHT
20. INVOICE NO.

17(h) TOTAL (Cont. pages): $92,160.00

21. MAIL INVOICE TO:
a. NAME: Department of Interior / NBC
NRCPayments@nbc.gov
b. STREET ADDRESS (or P.O. Box): Attn: Fiscal Services Branch - D2770
7301 W. Mansfield Avenue
c. CITY: Denver
d. STATE: CO
e. ZIP CODE: 80235-2230

SEE BILLING INSTRUCTIONS ON REVERSE

17(i) GRAND TOTAL:

22. UNITED STATES OF AMERICA BY (Signature): Donald A. King

23. NAME (Typed)
Donald A. King
Contracting Officer
TITLE: CONTRACTING/ORDERING OFFICER

AUTHORIZED FOR LOCAL REPRODUCTION
PREVIOUS EDITION NOT USABLE

OPTIONAL FORM 347 (REV. 4/2006)
PRESCRIBED BY GSA/FAR 48 CFR 53.213(f)

TEMPLATE - ADM002

SUNSI REVIEW COMPLETE

DEC 10 2010

ADM002

B. DESCRIPTION/SPECIFICATION/STATEMENT OF WORK

1. BACKGROUND

The US Nuclear Regulatory Commission (NRC) is responsible for the protection of the public health and safety in the civilian use of nuclear power and nuclear materials. The NRC Office of New Reactors (NRO) is seeking temporary support for one of its staff under the Intergovernmental Personnel Act (IPA) of 1970. In September 2010, the NRC's, Director, Office of Human Resources and University of Maryland (UMD) Assistant Director, Research Administration & Advancement, signed the NRC Form 769 Assignment Agreement. This agreement allows a staff member of NRO to utilize the UMD facilities, equipment and staff in pursuit of the NRC staff member's research project.

2. OBJECTIVE

The Contractor shall furnish the personnel and other services necessary to meet the requirements described in this statement of work

3. SCOPE

The scope of this SOW includes work associated with providing temporary support for one of NRC staff under the Intergovernmental Personnel Act (IPA) of 1970.

4. STATEMENT OF WORK

The University of Maryland (UMD) shall provide the following project support:

4.1 **Requirement**- UMD shall provide faculty support, testing, facilities, office space, supplies, and materials to Ms. Cameron S. Goodwin in support of the corrosion method for construction alloys project.

4.2 **Standard**- The daily support provided to Ms. Goodwin shall meet all of the faculty, testing, facilities and office space support required to support her research project on corrosion.

4.3 **Acceptable quality level**- No more than one instance of not providing the required support during a weekly period. Additionally, the quality of NRC research programs are assessed each year by the Advisory Committee on Reactor Safeguards. Within the context of their reviews of RES programs, the definition of quality research is based upon several major characteristics:

Results meet the objectives (75% of overall score)
- Justification of major assumptions (12%)
- Soundness of technical approach and results (52%)
- Uncertainties and sensitivities addressed (11%)

Documentation of research results and methods is adequate (25% of overall score)
- Clarity of presentation (16%)
- Identification of major assumptions (9%)

It is the responsibility of the contractor to ensure that these quality criteria are adequately addressed throughout the course of the research that is performed. The NRC project manager and technical monitor will review all research products with these criteria in mind.

4.4 **Incentive-** There will be a performance continuation decision after a one year period of performance.

4.5 **Guidance-** Under this 2-year assignment, [redacted] will conduct a research project proposed by professors at the UM and agreed upon by the NRC staff. Specifically, she will determine the corrosion method for construction alloys and the type of oxidation the graphite is undergoing in an impure helium environment within a mock-up of a high-temperature gas-cooled reactor (HTGR). This information will be used to predict how these materials will react in the HTGR. In doing so, [redacted] will gain experience and fundamental knowledge that will contribute significantly to building and maintaining the NRC's skills in this important and highly specialized area. Enclosure 2 to the IPA memorandum is a letter from the UM outlining the agreed upon proposed research project and associated cost.

5. PLACE OF PERFORMANCE

University of Maryland/James Clark School of Engineering
2309 Chemical & Nuclear Engineering Building
University of Maryland, College Park Maryland 20742-2114

6. PERSONNEL REQUIREMENTS

The Contractor shall provide competent, experienced, and highly qualified personnel to support the NRC Staff member. UMD personnel support shall be provided by [redacted].

7. Hours of Support and Holiday Schedule

Contractor personnel shall provide support as needed during the hours beginning 6:45 a.m. and ending at 3:30 p.m. Any changes to the support hours shall be approved by the NRC Staff member. These hours coincide with the NRC Staff member business hours.

The following holidays are recognized by the Federal Government:

New Year's Day
President's Day
Independence Day
Columbus Day
Thanksgiving Day
Martin Luther King's Birthday
Memorial Day
Labor Day
Veterans Day
Christmas Day

C.1 52.213-4 TERMS AND CONDITIONS - SIMPLIFIED ACQUISITIONS (OTHER THAN COMMERCIAL ITEMS) (JUL 2010)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses that are incorporated by reference:

(1) The clauses listed below implement provisions of law or Executive order:

(i) 52.222-3, Convict Labor (June 2003) (E.O. 11755).

(ii) 52.222-21, Prohibition of Segregated Facilities (Feb 1999) (E.O. 11246).

(iii) 52.222-26, Equal Opportunity (Mar 2007) (E.O. 11246).

(iv) 52.222-50, Combating Trafficking in Persons (Feb 2009) (22 U.S.C. 7104(g)).

(v) 52.225-13, Restrictions on Certain Foreign Purchases (June 2008) (E.o.s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

(vi) 52.233-3, Protest After Award (Aug 1996) (31 U.S.C. 3553).

(vii) 52.233-4, Applicable Law for Breach of Contract Claim (Oct 2004) (Pub. L. 108-77, 108-78).

(2) Listed below are additional clauses that apply:

(i) 52.204-10, Reporting Executive Compensation and First-Tier Subcontract Awards (JUL 2010) (Pub. L. 109-282) (31 U.S.C. 6101 note).

(ii) 52.232-1, Payments (Apr 1984).

(iii) 52.232-8, Discounts for Prompt Payment (Feb 2002).

(iv) 52.232-11, Extras (Apr 1984).

(v) 52.232-25, Prompt Payment (Oct 2008).

(vi) 52.233-1, Disputes (Jul 2002).

(vii) 52.244-6, Subcontracts for Commercial Items (JUN 2010).

(viii) 52.253-1, Computer Generated Forms (Jan 1991).

(b) The Contractor shall comply with the following FAR clauses, incorporated by reference, unless the circumstances do not apply:

(1) The clauses listed below implement provisions of law or Executive order:

(i) 52.222-19, Child Labor–Cooperation with Authorities and Remedies (JUL 2010) (E.O. 13126). (Applies to contracts for supplies exceeding the micro-purchase threshold.)

(ii) 52.222-20, Walsh-Healey Public Contracts Act (Dec 1996) (41 U.S.C. 35-45) (Applies to supply contracts over $10,000 in the United States, Puerto Rico, or the U.S. Virgin Islands).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (38 U.S.C. 4212) (Applies to contracts of $100,000 or more).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793). (Applies to contracts over $10,000, unless the work is to be performed outside the United States by employees recruited outside the United States.) (For purposes of this clause, United States includes the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.)

(v) 52.222-37, Employment Reports on Special Disabled Veterans, Veterans of the Vietnam Era, and Other Eligible Veterans (Sept 2006) (38 U.S.C. 4212) (Applies to contracts of $100,000 or more).

(vi) 52.222-41, Service Contract Act of 1965 (Nov 2007) (41 U.S.C. 351, et seq.). (Applies to service contracts over $2,500 that are subject to the Service Contract Act and will be performed in the United States, District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, Johnston Island, Wake Island, or the outer continental shelf lands).

(vii) 52.223-5, Pollution Prevention and Right-to-Know Information (Aug 2003) (E.O. 13148) (Applies to services performed on Federal facilities).

(viii) 52.223-15, Energy Efficiency in Energy-Consuming Products (DEC 2007) (42 U.S.C. 8259b) (Unless exempt pursuant to 23.204, applies to contracts when energy-consuming products listed in the ENERGY STAR Program or Federal Energy Management Program (FEMP) will be--

(A) Delivered;

(B) Acquired by the Contractor for use in performing services at a Federally-controlled facility;

(C) Furnished by the Contractor for use by the Government; or

(D) Specified in the design of a building or work, or incorporated during its construction, renovation, or maintenance.)

(ix) 52.225-1, Buy American Act--Supplies (FEB 2009) (41 U.S.C. 10a-10d) (Applies to contracts for supplies, and to contracts for services involving the furnishing of supplies, for use in the United States or its outlying areas, if the value of the supply contract or supply portion of a service contract exceeds the micro- purchase threshold and the acquisition--

(A) Is set aside for small business concerns; or

(B) Cannot be set aside for small business concerns (see 19.502-2), and does not exceed $25,000.)

(x) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (Oct 2003). (Applies when the payment will be made by electronic funds transfer (EFT) and the payment office uses the Central Contractor Registration (CCR) database as its source of EFT information.)

(xi) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (May 1999). (Applies when the payment will be made by EFT and the payment office does not use the CCR database as its source of EFT information.)

(xii) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx 1241). (Applies to supplies transported by ocean vessels (except for the types of subcontracts listed at 47.504(d).)

(2) Listed below are additional clauses that may apply:

(i) 52.209-6, Protecting the Government's Interest When Subcontracting with Contractors Debarred, Suspended, or Proposed for Debarment (Sept 2006) (Applies to contracts over $30,000).

(ii) 52.211-17, Delivery of Excess Quantities (Sept 1989) (Applies to fixed-price supplies).

(iii) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (MAR 2009)(Pub. L. 110-247)(Applies to contracts greater than $25,000 that provide for the provision, the service, or the sale of food in the United States.)

(iv) 52.247-29, F.o.b. Origin (Feb 2006) (Applies to supplies if delivery is f.o.b. origin).

(v) 52.247-34, F.o.b. Destination (Nov 1991) (Applies to supplies if delivery is f.o.b. destination).

(c) FAR 52.252-2, Clauses Incorporated by Reference (Feb 1998). This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

http://www.arnet.gov/far

(d) 52.246-9 Inspection of Research and Development (Short Form) (APR 1984). The Government has the right to inspect and evaluate the work performed or being performed under the contract, and the premises where the work is being performed, at all reasonable times and in a manner that will not unduly delay the work. If the Government performs inspection or evaluation on the premises of the Contractor or a subcontractor, the Contractor shall furnish and shall require subcontractors to furnish all reasonable facilities and assistance for the safe and convenient performance of these duties.

(e) Excusable delays. The Contractor shall be liable for default unless nonperformance is caused by an occurrence beyond the reasonable control of the Contractor and without its fault or negligence, such as acts of God or the public enemy, acts of the Government in either its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, unusually severe weather, and delays of common carriers. The Contractor shall notify the Contracting Officer in writing as soon as it is reasonably possible after the commencement of any excusable delay, setting forth the full particulars in connection therewith, shall remedy such occurrence with all reasonable dispatch, and shall promptly give written notice to the Contracting Officer of the cessation of such occurrence.

(f) Termination for the Government's convenience. The Government reserves the right to terminate this contract, or any part hereof, for its sole convenience. In the event of such termination, the Contractor shall immediately stop all work hereunder and shall immediately cause any and all of its suppliers and subcontractors to cease work. Subject to the terms of this contract, the Contractor shall be paid a percentage of the contract price reflecting the percentage of the work performed prior to the notice of termination, plus reasonable charges that the Contractor can demonstrate to the satisfaction of the Government, using its standard record keeping system, have resulted from the termination. The Contractor shall not be required to comply with the cost accounting standards or contract cost principles for this purpose. This paragraph does not give the Government any right to audit the Contractor's records. The Contractor shall not be paid for any work performed or costs incurred that reasonably could have been avoided.

(g) Cancellation of Purchase Order. The Government may cancel this purchase order in the event that the Contractor fails to comply with any of the Purchase Order terms and conditions.

(h) Best efforts. The University of Maryland (UMD) will provide best efforts in performing the work under this Purchase Order and services will be rendered at a level commensurate with professional standards acceptable in discipline and within the scope of the project. Liability by the University of Maryland under this agreement shall be contingent upon an appropriation by the Maryland General Assembly to the University specifically for this purpose at the time an which may

give rise to the University's obligation to indemnify or save harmless occurs, and the extent that a tortuous claim is involved, the University's liability shall not be greater than the liability that might be determined under the Maryland Tort Claims Act, section 12-101 et. seq. of the State Government Article. Maryland Annotated Code (the "Act"), if the claim had been asserted against the University directly pursuant to the act.

ADDITIONAL SIMPLIFIED ACQUISITION TERMS AND CONDITIONS

C.2 NOTICE LISTING CLAUSES INCORPORATED BY REFERENCE

The following clauses are hereby incorporated by reference (by Citation Number, Title, and Date) in accordance with the clause at FAR "52.252-2 CLAUSES INCORPORATED BY REFERENCE" contained in this document. FAR 52.252-2 contains the internet address for electronic access to the full text of a clause.

NUMBER	TITLE	DATE
	FEDERAL ACQUISITION REGULATION (48 CFR Chapter 1)	
52.213-3	NOTICE TO SUPPLIER	APR 1984
52.222-50	COMBATING TRAFFICKING IN PERSONS	FEB 2009
52.223-6	DRUG-FREE WORKPLACE	MAY 2001
52.225-13	RESTRICTIONS ON CERTAIN FOREIGN PURCHASES	JUN 2008
52.233-1	DISPUTES	JUL 2002
52.233-4	APPLICABLE LAW FOR BREACH OF CONTRACT CLAIM	OCT 2004
52.237-2	PROTECTION OF GOVERNMENT BUILDINGS, EQUIPMENT, AND VEGETATION	APR 1984
52.243-1	CHANGES--FIXED PRICE ALTERNATE I (APR 1984)	AUG 1987

C.3 NRC Acquisition Clauses - (NRCAR) 48 CFR Ch. 20

2052.209-72	CONTRACTOR ORGANIZATIONAL CONFLICTS OF INTEREST	JAN 1993

C.4 Other Applicable Clauses

[] See Addendum for the following in full text (if checked)

[] 52.216-18, Ordering

[] 52.216-19, Order Limitations

[] 52.216-22, Indefinite Quantity

[] 52.217-6, Option for Increased Quantity

[] 52.217-7, Option for Increased Quantity Separately Priced Line Item

[] 52.217-8, Option to Extend Services

[] 52.217-9, Option to Extend the Term of the Contract

C.5 SEAT BELTS

Contractors, subcontractors, and grantees, are encouraged to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company-owned, rented, or personally owned vehicles.

C.6 WHISTLEBLOWER PROTECTION FOR NRC CONTRACTOR AND SUBCONTRACTOR EMPLOYEES (JULY 2006)

(a) The U.S. Nuclear Regulatory Commission (NRC) contractor and its subcontractor are subject to the Whistleblower Employee Protection public law provisions as codified at 42 U.S.C. 5851. NRC contractor(s) and subcontractor(s) shall comply with the requirements of this Whistleblower Employee Protection law, and the implementing regulations of the NRC and the Department of Labor (DOL). See, for example, DOL Procedures on Handling Complaints at 29 C.F.R. Part 24 concerning the employer obligations, prohibited acts, DOL procedures and the requirement for prominent posting of notice of Employee Rights at Appendix A to Part 24.

(b) Under this Whistleblower Employee Protection law, as implemented by regulations, NRC contractor and subcontractor employees are protected from discharge, reprisal, threats, intimidation, coercion, blacklisting or other employment discrimination practices with respect to compensation, terms, conditions or privileges of their employment because the contractor or subcontractor employee(s) has provided notice to the employer, refused to engage in unlawful practices, assisted in proceedings or testified on activities concerning alleged violations of the Atomic Energy Act of 1954 (as amended) and the Energy Reorganization Act of 1974 (as amended).

(c) The contractor shall insert this or the substance of this clause in any subcontracts involving work performed under this contract.

C.7 PROHIBITON OF FUNDING TO ACORN (NOV 2009)

In accordance with section 163 of the Continuing Appropriations Resolution, 2010, Division B of Public Law No. 111-68 (CR), until further notice, no federal funds may be provided to the Association of Community Organizations for Reform Now (ACORN), or any of its affiliates, subsidiaries, or allied organizations. Additional information can be found at: http://www.whitehouse.gov/omb/assets/memoranda_2010/m10-02.pdf

C.8 REDUCING TEXT MESSAGING WHILE DRIVING (OCT 2009)

(a) In accordance with Section 4 of Executive Order 13513, "Federal Leadership on Reducing Text Messaging While Driving,"(October 1, 2009), the Contractor or Recipient is encouraged to:

(1) Adopt and enforce policies that ban text messaging while driving company-owned or rented vehicles or Government-owned vehicles, or while driving privately-owned vehicles when on official Government business or when performing any work for or on behalf of the Government; and

(2) Consider new rules and programs to further the policies described in (a)(1), reevaluate existing programs to prohibit text messaging while driving, and conduct education, awareness, and other outreach programs for employees

about the safety risks associated with text messaging while driving. These initiatives should encourage voluntary compliance with the text messaging policy while off duty.

(b) For purposes of complying with the Executive Order:

(1) "Texting" or "Text Messaging" means reading from or entering data into any handheld or other electronic device, including for the purpose of SMS texting, e-mailing, instant messaging, obtaining navigational information, or engaging in any other form of electronic data retrieval or electronic data communication.

(2) "Driving" means operating a motor vehicle on an active roadway with the motor running, including while temporarily stationary because of traffic, a traffic light or stop sign, or otherwise. It does not include operating a motor vehicle with or without the motor running when one has pulled over to the side of, or off, an active roadway and has halted in a location where one can safely remain stationary.

(c) The Contractor or Recipient shall encourage its subcontractor(s) or sub-recipient(s) to adopt and enforce the policies and initiatives described in this clause.