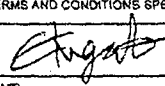
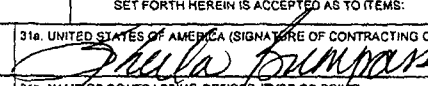


SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, & 30				1. REQUISITION NO.		PAGE 1 OF	
2. CONTRACT NO. NRC-04-09-163		3. AWARD/EFFECTIVE DATE 9/30/2009		4. ORDER NO.		5. SOLICITATION NUMBER	
7. FOR SOLICITATION INFORMATION CALL:		a. NAME Sheila Bumpass		b. TELEPHONE NO. (No Collect Calls) 301-492-3484		8. OFFER DUE DATE/LOCAL TIME	
9. ISSUED BY U.S. Nuclear Regulatory Commission Div. of Contracts Attn: Neha S. Dhir Mail Stop: TWB-01-B10M Washington, DC 20555				10. THIS ACQUISITION IS <input type="checkbox"/> UNRESTRICTED OR <input type="checkbox"/> SET ASIDE: % FOR: <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> EMERGING SMALL BUSINESS <input type="checkbox"/> HUBZONE SMALL BUSINESS <input type="checkbox"/> SERVICE-DISABLED VETERAN-OWNED SMALL BUSINESS <input type="checkbox"/> 8(A) NAICS: SIZE STANDARD: \$7M			
11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED <input type="checkbox"/> SEE SCHEDULE		12. DISCOUNT TERMS N/A		13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700) <input type="checkbox"/>		13b. RATING N/A	
15. DELIVER TO U.S. Nuclear Regulatory Commission Washington DC 20555				16. ADMINISTERED BY U.S. Nuclear Regulatory Commission Div. of Contracts Mail Stop: TWB-01-B10M Washington, DC 20555			
17a. CONTRACTOR/OFFEROR CODE		FACILITY CODE		18a. PAYMENT WILL BE MADE BY		CODE 3100	
Vegter, Ltd. Attn: Dr. Ed Kingston, Managing Director University Gate East Park Row Bristol, BS1 5UB UK				Department of Interior / NBC NRCPayments@nbc.gov Attn: Fiscal Services Branch - D2770 7301 W. Mansfield Avenue Denver CO 80235-2230			
TELEPHONE NO. 44(0) 117-887-8015				18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a UNLESS BLOCK BELOW IS CHECKED <input type="checkbox"/> SEE ADDENDUM			
<input type="checkbox"/> 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER							
19. ITEM NO.	20. See CONTINUATION Page SCHEDULE OF SUPPLIES/SERVICES			21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	The contractor shall provide services described in the Statement of Work and in accordance with the terms and conditions of this contract. Contract Title: "Deep Hole Drilling Residual Stress Measurements" Contract Type: Fixed Price, Indefinite Delivery/Indefinite Quantity (IDIQ) Total Obligated Amount: \$50,000 Total Contract Ceiling: \$336,020.04 Period of Performance: September 30, 2009 - September 30, 2010 (Use Reverse and/or Attach Additional Sheets as Necessary)						
25. ACCOUNTING AND APPROPRIATION DATA See CONTINUATION Page B&R 960-15-111-127 JCN N6864 BOC 252A APPN 31X020C-960 OBLIGATION \$50,000				26. TOTAL AWARD AMOUNT (For Govt. Use Only) \$336,020.04			
<input type="checkbox"/> 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1, 52.212-4, FAR 52.212-3 AND 52.212-5 ARE ATTACHED. ADDENDA <input type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED.							
<input checked="" type="checkbox"/> 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4, FAR 52.212-5 IS ATTACHED. ADDENDA <input checked="" type="checkbox"/> ARE <input type="checkbox"/> ARE NOT ATTACHED							
<input type="checkbox"/> 28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN COPIES TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED				<input type="checkbox"/> 29. AWARD OF CONTRACT: REF. _____ OFFER DATED _____ YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN IS ACCEPTED AS TO ITEMS:			
30a. SIGNATURE OF OFFEROR/CONTRACTOR 				31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER) 			
30b. NAME AND TITLE OF SIGNER (TYPE OR PRINT) DR. ED KINGSTON - MANAGING DIRECTOR		30c. DATE SIGNED 28/9/09		31b. NAME OF CONTRACTING OFFICER (TYPE OR PRINT) Sheila Bumpass		31c. DATE SIGNED Sep 28, 2009	

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PREVIOUS EDITION IS NOT USABLE

STANDARD FORM 1449 (REV. 5/2005)
Prescribed by GSA - FAR (48 CFR) 63.212

OCT 02 2009

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SECTION B - CONTINUATION BLOCK**B.1 BRIEF DESCRIPTION OF WORK (MAR 1987) ALTERNATE 1 (JUN 1988)****(a) Brief description of work:**

Veqter Ltd will use its proprietary Deep Hole Drilling technique to measure through-wall weld residual stresses for NRC supplied pressurize surge and safety/relief nozzle-to-safe end DM butt weld mockups before and after the application of a full structural weld overlay and the mechanical stress improvement processes.

(b) Orders will be issued for work required by the NRC in accordance with 52.216-18 - Ordering. Only Contracting Officers of the NRC or other individuals specifically authorized under this contract may authorize the initiation of work under this contract. The provisions of this contract shall govern all orders issued hereunder.

B.2 CONSIDERATION AND OBLIGATION--DELIVERY ORDERS (JUN 1988)

(a) The total estimated amount of this contract (ceiling) for the products/services ordered, delivered, and accepted under this contract is **\$336,020.04**. The Contracting Officer may unilaterally increase this amount as necessary for orders to be placed with the contractor during the contract period provided such orders are within any maximum ordering limitation prescribed under this contract.

(b) The amount presently obligated with respect to this contract is **\$50,000.00**. The Contracting Officer may issue orders for work up to the amount presently obligated. This obligated amount may be unilaterally increased from time to time by the Contracting Officer by written modification to this contract. The obligated amount shall, at no time, exceed the contract ceiling as specified in paragraph a above. When and if the amount(s) paid and payable to the Contractor hereunder shall equal the obligated amount, the Contractor shall not be obligated to continue performance of the work unless and until the Contracting Officer shall increase the amount obligated with respect to this contract. Any work undertaken by the Contractor in excess of the obligated amount specified above is done so at the Contractor's sole risk.

B.3 PRICE/COST SCHEDULE

Subtask	Description	Qty	Unit Price	Total
1a	International WRS mock-up: <ul style="list-style-type: none"> DHD through DM butt-weld centerline 03mm reference hole, 010mm core =2.5"measure depth 	4	\$9,327.18	\$36,968.78
1b	Weld Residual Stress mock-up: <ul style="list-style-type: none"> DHD through DM butt-weld centerline 03mm reference hole, 010mm core =2.5"measure depth 	4	\$9,327.18	\$36,968.78
1c	Mechanical Stress Improvement mock-up: <ul style="list-style-type: none"> DHD through DM butt-weld centerline 03mm reference hole, 010mm core =2.5"measure depth 	4	\$9,327.18	\$36,968.78
2	Pressuriser Safety/Relief Nozzle-to-Safe-End DM mock-up: <ul style="list-style-type: none"> DHD through DM butt-weld centerline 03mm reference hole, 010mm core =2.5"measure depth 	4	\$9,327.18	\$36,968.78
	2 Day Meeting at NRC Headquarters	1	\$5,000.00	\$5,000.00
			TOTAL	\$336,020.04

SECTION C - CONTRACT CLAUSES

ADDENDUM TO FAR 52.212-4 CONTRACT TERMS AND CONDITIONS--COMMERCIAL ITEMS

Clauses that are incorporated by reference (by Citation Number, Title, and Date), have the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available.

The following clauses are incorporated into 52.212-4 as an addendum to this contract:

C.1 52.216-18 ORDERING (OCT 1995)

(a) Any supplies and services to be furnished under this contract shall be ordered by issuance of delivery orders or task orders by the individuals or activities designated in the Schedule. Such orders may be issued from the effective date of the contract through the expiration date of the contract.

(b) All delivery orders or task orders are subject to the terms and conditions of this contract. In the event of conflict between a delivery order or task order and this contract, the contract shall control.

(c) If mailed, a delivery order or task order is considered "issued" when the Government deposits the order in the mail. Orders may be issued orally, by facsimile, or by electronic commerce methods only if authorized in the Schedule.

C.2 52.216-19 ORDER LIMITATIONS (OCT 1995)

(a) Minimum order. When the Government requires supplies or services covered by this contract in an amount of less than one (1) deep hole drilling measurement, the Government is not obligated to purchase, nor is the Contractor obligated to furnish, those supplies or services under the contract.

(b) Maximum order. The Contractor is not obligated to honor--

(1) Any order for a single item in excess of n/a;

(2) Any order for a combination of items in excess of sixteen deep hole drilling measurements; or

(3) A series of orders from the same ordering office within n/a days that together call for quantities exceeding the limitation in paragraph (b)(1) or (2) of this section.

(c) If this is a requirements contract (i.e., includes the Requirements clause at subsection 52.216-21 of the Federal Acquisition Regulation (FAR)), the Government is not required to order a part of any one requirement from the Contractor if that requirement exceeds the maximum-order limitations in paragraph (b) of this section.

(d) Notwithstanding paragraphs (b) and (c) of this section, the Contractor shall honor any order exceeding the maximum order limitations in paragraph (b), unless that order (or orders) is returned to the ordering office within 10 days after issuance, with written notice stating the Contractor's intent not to ship the item (or items) called for and the reasons. Upon receiving this notice, the Government may acquire the supplies or services from another source.

C.3 52.216-22 INDEFINITE QUANTITY (OCT 1995)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after six months after the expiration date of the contract.

C.4 52.232-19 AVAILABILITY OF FUNDS FOR THE NEXT FISCAL YEAR (APR 1984)

Funds are not presently available for performance under this contract beyond fiscal year 2009. The Government's obligation for performance of this contract beyond that date is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise for performance under this contract beyond fiscal year 2009, until funds are made available to the Contracting Officer for performance and until the Contractor receives notice of availability, to be confirmed in writing by the Contracting Officer.

C.5 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>

52.245-1A	GOVERNMENT PROPERTY	JUN 2007
	ALTERNATE I (JUNE 2007)	
52.245-9	USE AND CHARGES	JUN 2007

C.6 PLACE OF DELIVERY--REPORTS (JUN 1988)

The items to be furnished hereunder shall be delivered, with all charges paid by the Contractor, to:

(a) Project Officer (copies)

(b) Contracting Officer (1 copy)

(a) This is an indefinite-quantity contract for the supplies or services specified, and effective for the period stated, in the Schedule. The quantities of supplies and services specified in the Schedule are estimates only and are not purchased by this contract.

(b) Delivery or performance shall be made only as authorized by orders issued in accordance with the Ordering clause. The Contractor shall furnish to the Government, when and if ordered, the supplies or services specified in the Schedule up to and including the quantity designated in the Schedule as the "maximum." The Government shall order at least the quantity of supplies or services designated in the Schedule as the "minimum."

(c) Except for any limitations on quantities in the Order Limitations clause or in the Schedule, there is no limit on the number of orders that may be issued. The Government may issue orders requiring delivery to multiple destinations or performance at multiple locations.

(d) Any order issued during the effective period of this contract and not completed within that period shall be completed by the Contractor within the time specified in the order. The contract shall govern the Contractor's and Government's rights and obligations with respect to that order to the same extent as if the order were completed during the contract's effective period; provided, that the Contractor shall not be required to make any deliveries under this contract after six months after the expiration date of the contract.

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52.245-1A	GOVERNMENT PROPERTY	JUN 2007
	ALTERNATE I (JUNE 2007)	
52.245-9	USE AND CHARGES	JUN 2007

C.6 PLACE OF DELIVERY--REPORTS (JUN 1988)

The items to be furnished hereunder shall be delivered, with all charges paid by the Contractor, to:

(a) Project Officer (copies)

(PROJ-OFFICER-ADD1) (PROJ-OFFICER-ADD2) (PROJ-OFFICER-ADD3) (PROJ-OFFICER-ADD4)

(b) Contracting Officer (1 copy)

C.7 PROJECT OFFICER AUTHORITY ALTERNATE 2 (FEBRUARY 2004)

(a) The contracting officer's authorized representative hereinafter referred to as the project officer for this contract is:

Name:	Mr. Howard Rathbun
Email:	Howard.Rathun@NRC.GOV
Tel:	301-251-7647

(b) The project officer shall:

(1) Place delivery orders for items required under this contract up to the amount obligated on the contract award document.

(2) Monitor contractor performance and recommend changes in requirements to the contracting officer.

(3) Inspect and accept products/services provided under the contract.

(4) Review all contractor invoices/vouchers requesting payment for products/services provided under the contract and make recommendations for approval, disapproval, or suspension.

(5) Immediately notify the Security Branch, Division of Facilities and Security (SB/DFS) (via e-mail) when a contractor employee no longer requires access authorization and return of any NRC issued badge to SB/DFS within three days after their termination.

(c) The project officer may not make changes to the express terms and conditions of this contract.

C.8 2052.215-78 TRAVEL APPROVALS AND REIMBURSEMENT -ALTERNATE 1 (OCT 1999)

(a) Total expenditure for travel may not exceed without the prior approval of the contracting officer.

(b) All foreign travel must be approved in advance by the NRC on NRC Form 445, Request for Approval of Official Foreign Travel, and must be in compliance with FAR 52.247-63 Preference for U.S. Flag Air Carriers. The contractor shall submit NRC Form 445 to the NRC no later than 30 days prior to the commencement of travel.

(c) The contractor will be reimbursed only for those travel costs incurred that are directly related to this contract and which are allowable subject to the limitations prescribed in FAR 31.205-46.

(d) It is the responsibility of the contractor to notify the contracting officer in accordance with the FAR Limitations of Cost clause of this contract when, at any time, the contractor learns that travel expenses will cause the contractor to exceed the travel ceiling amount identified in paragraph (a) of this clause.

(e) Reasonable travel costs for research and related activities performed at State and nonprofit institutions, in accordance with Section 12 of Pub. L. 100-679, shall be charged in accordance with the contractor's institutional policy to the degree that the limitations of Office of Management and Budget (OMB) guidance are not exceeded. Applicable guidance documents include OMB Circular A-87, Cost Principles for State and Local Governments; OMB Circular A-122, Cost Principles for Nonprofit Organizations; and OMB Circular A-21, Cost Principles for Educational Institutions.

(End of Addendum to 52.212-4)

C.9 52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (AUG 2009)

(a) The Contractor shall comply with the following Federal Acquisition Regulation (FAR) clauses, which are incorporated in this contract by reference, to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

(1) 52.222-50, Combatting Trafficking in Persons (FEB 2009) (22 U.S.C. 7104(g)).

Alternate I (AUG 2007) of 52.222-50 (22 U.S.C. 7104 (g)).

(2) 52.233-3, Protest After Award (Aug 1996) (31 U.S.C. 3553).

(3) 52.233-4, Applicable Law for Breach of Contract Claim (Oct 2004) (Pub. L. 108-77, 108-78)

(b) The Contractor shall comply with the FAR clauses in this paragraph (b) that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

[] (1) 52.203-6, Restrictions on Subcontractor Sales to the Government (Sept 2006), with Alternate I (Oct 1995) (41 U.S.C. 253g and 10 U.S.C. 2402).

[] (2) 52.203-13, Contractor Code of Business Ethics and Conduct (DEC 2008)(Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).

[] (3) 52.203-15, Whistleblower Protections under the American Recovery and Reinvestment Act of 2009 (MAR 2009) (Section 1553 of Pub. L. 111-5). (Applies to contracts funded by the American Recovery and Reinvestment Act of 2009.)

[] (4) 52.204-11, American Recovery and Reinvestment Act-Reporting Requirements (MAR 2009) (Pub. L. 111-5).

[] (5) 52.219-3, Notice of Total HUBZone Set-Aside (Jan 1999) (15 U.S.C. 657a).

[] (6) 52.219-4, Notice of Price Evaluation Preference for HUBZone Small Business Concerns (July 2005) (if the offeror elects to waive the preference, it shall so indicate in its offer) (15 U.S.C. 657a).

[] (7) [Reserved]

[] (8)(i) 52.219-6, Notice of Total Small Business Set-Aside (June 2003) (15 U.S.C. 644).

[] (ii) Alternate I (Oct 1995) of 52.219-6.

[] (iii) Alternate II (Mar 2004) of 52.219-6.

[] (9)(i) 52.219-7, Notice of Partial Small Business Set-Aside (June 2003) (15 U.S.C. 644).

[] (ii) Alternate I (Oct 1995) of 52.219-7.

[] (iii) Alternate II (Mar 2004) of 52.219-7.

[] (10) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)).

- ☐ (11)(i) 52.219-9, Small Business Subcontracting Plan (APR 2008) (15 U.S.C. 637(d)(4)).
- ☐ (ii) Alternate I (Oct 2001) of 52.219-9.
- ☐ (iii) Alternate II (Oct 2001) of 52.219-9.
- ☐ (12) 52.219-14, Limitations on Subcontracting (Dec 1996) (15 U.S.C. 637(a)(14)).
- ☐ (13) 52.219-16, Liquidated Damages--Subcontracting Plan (Jan 1999) (15 U.S.C. 637(d)(4)(F)(i)).
- ☐ (14)(i) 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns (OCT 2008) (10 U.S.C. 2323) (if the offeror elects to waive the adjustment, it shall so indicate in its offer.)
- ☐ (ii) Alternate I (June 2003) of 52.219-23.
- ☐ (15) 52.219-25, Small Disadvantaged Business Participation Program--Disadvantaged Status and Reporting (APR 2008) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- ☐ (16) 52.219-26, Small Disadvantaged Business Participation Program--Incentive Subcontracting (Oct 2000) (Pub. L. 103-355, section 7102, and 10 U.S.C. 2323).
- ☐ (17) 52.219-27, Notice of Total Service-Disabled Veteran-Owned Small Business Set-Aside (May 2004) (15 U.S.C. 657 f).
- ☐ (18) 52.219-28, Post Award Small Business Program Rerepresentation (APR 2009) (15 U.S.C. 632(a)(2)).
- ☒ (19) 52.222-3, Convict Labor (June 2003) (E.O. 11755).
- ☐ (20) 52.222-19, Child Labor--Cooperation with Authorities and Remedies (AUG 2009) (E.O. 13126).
- ☒ (21) 52.222-21, Prohibition of Segregated Facilities (Feb 1999).
- ☒ (22) 52.222-26, Equal Opportunity (Mar 2007) (E.O. 11246).
- ☒ (23) 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).
- ☒ (24) 52.222-36, Affirmative Action for Workers with Disabilities (Jun 1998) (29 U.S.C. 793).
- ☒ (25) 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).
- ☒ (26) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201).
- ☐ (27) 52.222-54, Employment Eligibility Verification (Jan 2009). (Executive Order 12989). (Not applicable to the acquisition of commercially available off-the-shelf items or certain other types of commercial items as prescribed in 22.1803.)
- ☐ (28)(i) 52.223-9, Estimate of Percentage of Recovered Material Content for EPA-Designated Items (May 2008) (42 U.S.C. 6962(c)(3)(A)(ii)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

☐ (ii) Alternate I (MAY 2008) of 52.223-9 (42 U.S.C. 6962(i)(2)(C)). (Not applicable to the acquisition of commercially available off-the-shelf items.)

☐ (29) 52.223-15, Energy Efficiency in Energy-Consuming Products (DEC 2007)(42 U.S.C. 8259b).

☐ (30)(i) 52.223-16, IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products (DEC 2007) (E.O. 13423).

☐ (ii) Alternate I (DEC 2007) of 52.223-16.

☐ (31) 52.225-1, Buy American Act--Supplies (FEB 2009) (41 U.S.C. 10a-10d).

☐ (32)(i) 52.225-3, Buy American Act--Free Trade Agreements-- Israeli Trade Act (JUN 2009) (41 U.S.C. 10a-10d, 19 U.S.C. 3301 note, 19 U.S.C. 2112 note, 19 U.S.C. 3805 note, Pub. L. 108-77, 108-78, 108-286, 108-302, 109-53 and 109-169, 109-283, and 110-138).

☐ (ii) Alternate I (Jan 2004) of 52.225-3.

☐ (iii) Alternate II (Jan 2004) of 52.225-3.

☐ (33) 52.225-5, Trade Agreements (AUG 2009) (19 U.S.C. 2501, et seq., 19 U.S.C. 3301 note).

☒ (34) 52.225-13, Restrictions on Certain Foreign Purchases (JUN 2008) (E.O.'s, proclamations, and statutes administered by the Office of Foreign Assets Control of the Department of the Treasury).

☐ (35) 52.226-4, Notice of Disaster or Emergency Area Set-Aside (Nov 2007) (42 U.S.C. 5150).

☐ (36) 52.226-5, Restrictions on Subcontracting Outside Disaster or Emergency Area (Nov 2007) (42 U.S.C. 5150).

☐ (37) 52.232-29, Terms for Financing of Purchases of Commercial Items (Feb 2002) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

☐ (38) 52.232-30, Installment Payments for Commercial Items (Oct 1995) (41 U.S.C. 255(f), 10 U.S.C. 2307(f)).

☐ (39) 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration (Oct 2003) (31 U.S.C. 3332).

☐ (40) 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration (May 1999) (31 U.S.C. 3332).

☐ (41) 52.232-36, Payment by Third Party (May 1999) (31 U.S.C. 3332).

☐ (42) 52.239-1, Privacy or Security Safeguards (Aug 1996) (5 U.S.C. 552a).

☐ (43)(i) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631).

☐ (ii) Alternate I (Apr 2003) of 52.247-64.

(c) The Contractor shall comply with the FAR clauses in this paragraph (c), applicable to commercial services, that the Contracting Officer has indicated as being incorporated in this contract by reference to implement provisions of law or Executive orders applicable to acquisitions of commercial items:

- ☐ (1) 52.222-41, Service Contract Act of 1965 (Nov 2007) (41 U.S.C. 351, et seq.).
- ☐ (2) 52.222-42, Statement of Equivalent Rates for Federal Hires (May 1989) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.). N/A
- ☐ (3) 52.222-43, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Multiple Year and Option Contracts) (Nov 2006) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- ☐ (4) 52.222-44, Fair Labor Standards Act and Service Contract Act--Price Adjustment (Feb 2002) (29 U.S.C. 206 and 41 U.S.C. 351, et seq.).
- ☐ (5) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements (Nov 2007) (41 U.S.C. 351, et seq.).
- ☐ (6) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services--Requirements (FEB 2009) (41 U.S.C. 351, et seq.).
- ☐ (7) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (MAR 2009)(Pub. L. 110-247)
- ☐ (8) 52.237-11, Accepting and Dispensing of \$1 Coin (SEP 2008) (31 U.S.C. 5112(p)(1)).

(d) Comptroller General Examination of Record. The Contractor shall comply with the provisions of this paragraph (d) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-2, Audit and Records--Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to and right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of type and regardless of form. This does not require the Contractor to create or maintain any record that the Contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e)(1) Notwithstanding the requirements of the clauses in paragraphs (a), (b), (c), and (d) of this clause, the Contractor is not required to flow down any FAR clause, other than those in this paragraph (e)(1) in a subcontract for commercial items. Unless otherwise indicated below, the extent of the flow down shall be as required by the clause--

(i) 52.203-13, Contractor Code of Business Ethics and Conduct (DEC 2008) (Pub. L. 110-252, Title VI, Chapter 1 (41 U.S.C. 251 note)).

(ii) 52.219-8, Utilization of Small Business Concerns (May 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$550,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(iii) [Reserved]

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

(v) 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).

(vi) 52.222-36, Affirmative Action for Workers with Disabilities (June 1998) (29 U.S.C. 793).

(vii) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (Dec 2004) (E.O. 13201).

(viii) 52.222-41, Service Contract Act of 1965 (Nov 2007) (41 U.S.C. 351, et seq.).

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

Alternate I (AUG 2007) of 52.222-50 (22 U.S.C. 7104(g)).

(x) 52.222-51, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Requirements "(Nov 2007)" (41 U.S.C. 351, et seq.).

(xi) 52.222-53, Exemption from Application of the Service Contract Act to Contracts for Certain Services-Requirements (FEB 2009)(41 U.S.C. 351, et seq.).

(xii) 52.222-54, Employee Eligibility Verification (JAN 2009)

(xiii) 52.226-6, Promoting Excess Food Donation to Nonprofit Organizations. (MAR 2009)(Pub. L. 110-247). Flow down required in accordance with paragraph (e) of FAR clause 52.226-6.

(xiv) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (Feb 2006) (46 U.S.C. Appx. 1241(b) and 10 U.S.C. 2631). Flow down required in accordance with paragraph (d) of FAR clause 52.247-64.

(2) While not required, the contractor may include in its subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

C.10 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.

SECTION D - CONTRACT DOCUMENTS, EXHIBITS, OR ATTACHMENTS

Statement of Work

SECTION D - CONTRACT DOCUMENTS, EXHIBITS, OR ATTACHMENTS**D.1 STATEMENT OF WORK**

STATEMENT OF WORK

TITLE: Deep Hole Drilling Residual Stress Measurements

BACKGROUND

In October 2006, the Wolf Creek Nuclear Operating Corporation performed pre-weld overlay inspections using ultrasonic testing (UT) techniques on the surge, spray, relief, and safety nozzle-to-safe end dissimilar metal (DM) and safe end-to-pipe stainless steel butt welds. The inspection identified five circumferential flaws in the surge, relief, and safety nozzle-to-safe end DM butt welds that were attributed to primary water stress corrosion cracking (PWSCC) and were significantly larger and more extensive than previously seen in the industry.

In February 2007, the nuclear power industry's Materials Reliability Program proposed to refine the crack growth analyses pertaining to the Wolf Creek pressurizer DM weld UT indications. The proposed industry advanced finite element analyses (FEA) were performed to address the Nuclear Regulatory Commission (NRC) staff's concerns regarding the potential for rupture without prior evidence of leakage from circumferentially oriented primary water stress corrosion cracking (PWSCC) in pressurizer nozzle welds. The goals of these studies were to reduce conservatisms and uncertainties in previous analyses and demonstrate that PWSCC in pressurizer DM butt welds will progress through wall prior to a potential rupture event.

One of the major results from the industry advanced FEA program and NRC confirmatory research project was identifying the importance of weld residual stresses on the modeled growth of PWSCC cracks in service. As such, the industry and NRC researchers initially validated their individual weld residual stress models to the weld residual stress measurements found in the European Union (EU) report entitled "Assessment of Dissimilar Metal Weld Integrity: Final Report of the NESC-III Project." Nevertheless, this effort, while proving useful, was ultimately conducted on DM welds of a different nature that don't exist in domestic PWRs. The weld metal used in the EU report mockups consisted of 319L stainless steel while the typical PWR nozzle-to-safe end DM weld is comprised of Alloy 82/182.

As a result of this validation issue, the NRC is conducting a research program to validate the through-wall weld residual stresses that may develop at DM butt welds from typical fabrication and potential PWSCC mitigation methods such as full structural weld overlays and mechanical stress improvement process. Deep Hole Drilling (DHD) is a mechanical strain relief technique and the only non-destructive or semi-invasive technique to measure the through-wall residual stresses for this thick of a component. Thus, this DHD technique is the only viable measurement technique to measure the residual stresses before and after the application of potential PWSCC mitigation processes.

OBJECTIVE

Using the proprietary Veqter Ltd. Deep Hole Drilling technique, measure the through-wall weld residual stresses for NRC supplied pressurizer surge and safety/relief nozzle-to-safe end DM butt weld mockups before and after the application of a full structural weld overlay and the mechanical stress improvement mitigation processes.

SCOPE OF WORK

Before and after the application of PWSCC mitigation techniques (e.g. full structural weld overlay, optimized weld overlay, and mechanical stress improvement technique), measure the through-wall residual stresses of the NRC supplied pressurizer surge and safety/relief nozzle-to-safe end DM butt weld mockups using the proprietary Deep Hole Drilling technique.

Subtask #1: Phase II NRC supplied International Wilcoxon Rank Sum (WRS) and Weld Overlay Mockups will be shipped to the Veqter Ltd. laboratory in Bristol, United Kingdom. Deep hole drilling residual stress measurements shall be conducted per the direction of program manager. Up to 12 DHD measurements shall be conducted at the following locations:

- International WRS mockup: 4 DHD measurements through the DM butt weld centerline using a 3mm reference hole, 10mm core, and ~2.5" thick drill
- Weld Residual Stress mockup: 4 DHD measurements through the DM butt weld centerline using a 3mm reference hole, 10mm core, and ~2.5" thick drill
- Mechanical Stress Improvement mockup: 4 DHD measurements through the DM butt weld centerline using a 3mm reference hole, 10mm core, and ~2.5" thick drill

Subtask #2: Phase III NRC supplied Pressurizer Safety/Relief nozzle-to-safe end DM mockups will be shipped to the Veqter Ltd. laboratory in Bristol, United Kingdom. Deep hole drilling residual stress measurements shall be conducted per the direction of program manager. Up to 4 DHD measurements shall be conducted through the DM butt weld centerline using a 3mm reference hole, 10mm core, and ~2.5" thick drill.

The contractor shall identify any areas where additional information is required for any of the stated tasks.

RESEARCH QUALITY

The quality of NRC research programs is 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.

TECHNICAL AND OTHER SPECIAL QUALIFICATIONS REQUIRED

The program manager, key personnel, and any other senior technical staff performing work under this contract shall have experience with measuring weld residual stresses with the deep hole drilling technique.

LEVEL OF EFFORT

Sixteen deep hole drilling weld residual stress measurements shall be made. Note that the contractor bills based on the number of deep hole drilling measurements made, as opposed to specific staff hours, so the number of staff hours is unknown.

PERIOD OF PERFORMANCE: 13 Months

REPORTING REQUIREMENTS

Furnish a summary document detailing the location specific DHD measured residual stresses upon completion of individual delivery orders. The contractor shall identify any areas where additional information is required for any of the stated tasks.

MEETINGS AND TRAVEL

It is anticipated that, throughout the completion of the project, one contractor individual shall need to make approximately three two-day trips to NRC Headquarters to discuss the deep hole drilling locations, techniques, and results.

NRC-FURNISHED MATERIAL

NRC-supplied International Weld Residual Stress, Weld Overlay Mockups and Pressurizer Safety/Relief nozzle-to-safe end Dissimilar Metal weld mockups will be shipped to the Vegter Ltd. laboratory in Bristol, United Kingdom at dates that are to be determined, but within the timeframe required to complete the work by the specified final due date.

D.2 FIXED PRICE BILLING INSTRUCTIONS

General: During performance and through final payment of this contract, the contractor is responsible for the accuracy and completeness of data within the Central Contractor Registration (CCR) database and for any liability resulting from the Government's reliance on inaccurate or incomplete CCR data.

The contractor shall prepare vouchers/invoices as prescribed herein. FAILURE TO SUBMIT VOUCHERS/INVOICES IN ACCORDANCE WITH THESE INSTRUCTIONS WILL RESULT IN REJECTION OF THE VOUCHER/INVOICE AS IMPROPER.

Form: Claims shall be submitted on the payee's letterhead, voucher/invoice, or on the Government's Standard Form 1034, "Public Voucher for Purchases and Services Other than Personal," and Standard Form 1035, "Public Voucher for Purchases Other than Personal--Continuation Sheet."

Number of Copies: A signed original shall be submitted. If the voucher/invoice includes the purchase of any property with an initial acquisition cost of \$50,000 or more, a copy of the signed original is also required.

Designated Agency Billing Office: The preferred method of submitting vouchers/invoices is electronically to the Department of the Interior at NRCPayments@nbc.gov

If the voucher/invoice includes the purchase of any property with an initial acquisition cost of \$50,000 or more, a copy of the signed original shall be electronically sent to: Property@nrc.gov

However, if you submit a hard-copy of the voucher/invoice, it shall be submitted to the following address:

Department of the Interior
National Business Center
Attn: Fiscal Services Branch - D2770
7301 West Mansfield Avenue
Denver, CO 80235-2230

If you submit a hard-copy of the voucher/invoice and it includes the purchase of any property with an initial acquisition cost of \$50,000 or more, a copy of the signed original shall be mailed to the following address:

U.S. Nuclear Regulatory Commission
NRC Property Management Officer
Mail Stop: O-4D15
Washington, DC 20555-0001

HAND-CARRIED SUBMISSIONS WILL NOT BE ACCEPTED

Agency Payment Office: Payment will continue to be made by the office designated in the contract in Block 12 of the Standard Form 26, Block 25 of the Standard Form 33, or Block 18a. of the Standard Form 1449, whichever is applicable.

Frequency: The contractor shall submit a voucher/invoice only after the NRC's final acceptance of services rendered or products delivered in performance of the contract unless otherwise specified in the contract.

Preparation and Itemization of the Voucher/Invoice: The voucher/invoice shall be prepared in ink or by typewriter (without strike-overs). Corrections or erasures must be initialed. To be considered a proper voucher/invoice, all of the following elements must be included:

1. Contractor's Data Universal Number (DUNS) or DUNS+4 number that identifies the contractor's name and address. The DUNS+4 number is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the contractor to identify alternative Electronic Funds Transfer (EFT) accounts for the same parent concern.

2. Contract number.
3. Sequential voucher/invoice number.
4. Date of voucher/invoice.
5. Payee's name and address. Show the name of the Payee as it appears in the contract and its correct address. If the Payee assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Payee shall require as a condition of any such assignment, that the assignee shall register separately in the Central Contractor Registration (CCR) database at <http://www.ccr.gov> and shall be paid by EFT in accordance with the terms of this contract. See Federal Acquisition Regulation 52.232-33(g) Payment by Electronic Funds Transfer - Central Contractor Registration (October 2003).
6. A description of articles or services, quantity, unit price, and total amount.
7. For contractor acquired property, list each item with an initial acquisition cost of \$50,000 or more and provide: (1) an item description, (2) manufacturer, (3) model number, (4) serial number, (5) acquisition cost, (6) date of purchase, and (7) a copy of the purchasing document.
8. Weight and zone of shipment, if shipped by parcel post.
9. Charges for freight or express shipments. Attach prepaid bill if shipped by freight or express.
10. Instructions to consignee to notify the Contracting Officer of receipt of shipment.
11. For Indefinite Delivery contracts or contracts under which progress payments are authorized, the final voucher/invoice shall be marked "FINAL VOUCHER" OR "FINAL INVOICE."

Currency: Billings may be expressed in the currency normally used by the contractor in maintaining his accounting records and payments will be made in that currency. However, the U.S. dollar equivalent for all vouchers/invoices paid under the contract may not exceed the total U.S. dollars authorized in the contract.

Supersession: These instructions supersede any previous billing instructions.