

2. AMENDMENT/MODIFICATION NO. <b>139</b>	3. EFFECTIVE DATE See Block 16c	4. REQUISITION/PURCHASE REQ. <b>16EM001434</b>	5. PROJECT NO. (If applicable) N/A
6. ISSUED BY <b>U.S. Department of Energy Carlsbad Field Office P. O. Box 3090 Carlsbad, NM 88220-3090</b>		7. ADMINISTERED BY (If other than Item 6)	CODE

8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, state, ZIP Code) <b>Nuclear Waste Partnership, LLC Attn: Marty Gonzales Nuclear Waste Partnership 106 Newberry Street SW Aiken, SC 29801</b>	9A. AMENDMENT OF SOLICITATION NO.
	9B. DATED (SEE ITEM 11)
	10A. MODIFICATION OF CONTRACT/ORDER NO. <b>DE-EM0001971</b>
	10B. DATED (SEE ITEM 13) <b>April 20, 2012</b>

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 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 ACKNOWLEDGMENT 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)  
 01250 2016 33 490004 6100000 25400 1110676 0004569 0000000 0000000 \$250,000.00

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

	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO (Specify authority):
	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).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
<b>X</b>	D. OTHER (SPECIFY TYPE OF MODIFICATION AND AUTHORITY) H.55 Work Performed under Section C for other DOE entities

E. IMPORTANT: Contractor  is not,  is required to sign this document and return 2 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

The purposes of this modification are to obligate funding from DOE HQ per Contract Clause H.55 and revise Section B.2.2 (b) of the contract as follows:

- Obligate DOE-HQ funding of \$250,000.00 for delivery of an engineering design with sufficient detail that allows for material ordering, equipment fabrication, and system assembly for the TRU Waste Drum Non-Destructive Examination (NDE) Radioactive Test Bed (subcontractor V. J. Technologies). See attached Work Authorization.
- Increase total contract funding from \$730,005,722.40, by \$250,000.00, to \$730,255,722.40.
- Revise Section B.2.2.(b) to increase FY16 funding from other DOE entities from \$3,688,835.26, by \$250,000.00, to \$3,938,835.26.
- Increase contract value from \$1,658,736,663.40, by \$250,000.00, to \$1,658,986,663.40.

15A. NAME AND TITLE OF SIGNER (Type or print) <b>Kevin S. Donovan, Business Manager</b>	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) <b>Vicki D. Snow, Contracting Officer</b>
15B. CONTRACTOR/OFFEROR BY <b>Exemption 6</b> (Signature of person authorized to sign)	15C. DATE SIGNED <b>4/21/16</b>
16B. UNITED STATES OF AMERICA BY <b>Exemption 6</b> (Signature of Contracting Officer)	16C. DATE SIGNED <b>4/21/16</b>

## Changes to Section B.2-2(b) Transition Cost, Anticipated Funding, and Total Available Award Fee

	Actual Funding	Anticipated Funding	Annual Fee Base***
<b>CLIN 1: Transition</b>			
July 1, 2012 - September 30, 2012	\$1,553,670.00	\$1,553,670.00	
<b>CLIN 2: Base Period – Site Operations</b>			
October 1, 2012 through September 30, 2013	\$141,902,556.74	\$141,902,556.74	\$109,238,604
Funding transferred from WTS contract	\$7,995,864.65	\$7,995,864.65	
Funding from other DOE entities per H.55	\$11,373,074.35	\$11,373,074.35	
October 1, 2013 through September 30, 2014	\$139,265,040.00	\$139,265,040	\$109,238,604
Funding from other DOE entities per H.55	\$1,232,980.92	\$1,232,980.92	
October 1, 2014 through September 30, 2015	\$126,513,115.82	\$126,513,115.82	\$100,097,068
Funding from other DOE entities per H.55	\$5,551,193.66	\$5,551,193.66	
October 1, 2015 through September 30, 2016	\$69,709,306.00	\$143,633,488	\$109,238,604
Funding from other DOE entities per H.55	\$3,938,835.26	\$3,938,835.26	
October 1, 2016 through September 30, 2017	\$0.00	\$133,217,810	\$109,238,604
Funding from other DOE entities per H.55	\$0.00	\$0	
<b>TOTALS</b>	<b>\$507,481,967.40</b>	<b>\$714,623,959.40</b>	<b>\$537,051,484</b>
<b>CLIN 3: Option Period – Site Operations</b>			
October 1, 2017 through September 30, 2018	\$0.00	\$133,217,810	\$109,238,604
October 1, 2018 through September 30, 2019	\$0.00	\$133,217,810	\$109,238,604
October 1, 2019 through September 30, 2020	\$0.00	\$133,217,810	\$109,238,604
October 1, 2020 through September 30, 2021	\$0.00	\$133,217,810	\$109,238,604
October 1, 2021 through September 30, 2022	\$0.00	\$133,217,810	\$109,238,604
<b>TOTALS</b>		<b>\$666,089,050</b>	<b>\$546,193,020</b>
<b>CLIN 4: WBS. 1.7 Performance Measurement Baseline for Recovery Activities</b>			
FY14 WIPP Recovery Project WBS 1.7, Fee, MR: (Note: FY14 funding was obligated to CLIN 2 in STRIPES before Mod 94)	\$31,148,035.00	\$31,148,035	
FY15 WIPP Recovery Project WBS 1.7, Fee, MR - (Note: FY15 funding was obligated to CLIN 2 in STRIPES before Mod 94)	\$122,713,847.00	\$122,713,847	\$82,115,542
FY16 WIPP Recovery Project WBS 1.7, Fee, MR	\$59,278,134.00	\$79,459,008	
FY17 WIPP Recovery Project WBS 1.7, Fee, MR	\$0.00	\$12,322,628	
FY18 WIPP Recovery Project WBS 1.7, Fee, MR	\$0.00	\$358,466	
<b>TOTALS</b>	<b>\$213,140,016.00</b>	<b>\$246,001,984</b>	<b>\$82,115,542</b>
<b>CLIN 5: WBS 1.8 Capital Asset Project(s) for Permanent Ventilation System and Exhaust Shaft</b>			
FY16 funding -Capital Asset Project 15-D-411	\$6,000,000.00	\$23,218,000.00	
FY16 funding – Capital Asset Project 15-D-412	\$2,080,069.00	\$7,500,000.00	
<b>TOTALS</b>	<b>\$8,080,069.00</b>	<b>\$30,718,000.00</b>	
<b>Total Contract Funding to Date</b>	<b>\$730,255,722.40</b>		
<b>Total Contract Value</b>		<b>\$1,658,986,663.40</b>	

OFFICE OF ENVIRONMENTAL MANAGEMENT WORK AUTHORIZATION/TASK CHANGE REQUEST (TCR)								
Project Number:		Date:	March 1, 2016	AFP Change Month:	March 2016			
Project Title:	TRU Waste Drum NDE Radioactive Test Bed							
Site/Contractor:	EM HQ	Project Area from Roadmap:		Technical Task Plan Attached:				
Contract Number if other than National Laboratory or DOE site contractor: CBFO								
Name of Principal Investigator: Linda Suttora								
Name of Budget Analyst at the site where the contract is held:								
New BA (\$K) Requested	Prior Funding (\$K) in this FY	Total Uncosted (\$K) as of Beginning of this FY			Total Available Funding (\$K) including this request (add first three columns)			
250	0	0			250			
<b>Spend Plan for Total Available Funding (use actual costed funds for previous quarters)</b>								
1 <sup>st</sup> Quarter of FY	2 <sup>nd</sup> Qtr of FY	3 <sup>rd</sup> Quarter of FY	4 <sup>th</sup> Quarter of FY	Projected uncosted at the end of this FY				
0	250	0	0	0				
<b>Funding Codes (To be Completed by Budget Office)</b>								
Fund	Year	Allottee	Reporting Entity	SGL	Object Class	Program	Project	Amount
Short Description of Work Scope Authorized /Changed for input in AFP:	<p>Transuranic waste (TRU) contained in 55-gallon drums is in temporary storage at Waste Control Specialist (WCS) Federal Waste Facility (FWF) in Andrews, TX pending the resumption of waste disposal operations at Waste Isolation Pilot Plant (WIPP) in Carlsbad, NM. The 116 drums are over-packed in 74 standard waste boxes (SWB) for secondary containment and, in turn, over-packed in 35 mobile concrete containers (MCC) for tertiary containment all of which are emplaced in a shallow, below-grade cell and covered with sand. Before the TRU waste can be transported to WIPP for permanent disposal, it is now required that the drums are examined to identify the presence and location of absorbent materials, identify organic and inorganic materials, and to estimate absorbed fluid percentages. Real-time radiography (RTR) which is currently used to determine if prohibited items are packed within a drum cannot provide this new NDE requirement. A different solution is needed to accomplish nondestructive examination (NDE) of the drums.</p>							
	<p>VJ Technologies has demonstrated a pilot system that utilizes RTR, cone-beam area detector computed tomography (CT), and highly collimated CT scanning with linear detector array. Utilizing threat assessment protocols similar to those utilized by the Department of Homeland Security for airport checked baggage scanning, an integrated system can be used to interrogate the drums, and satisfy the new NDE programmatic needs.</p>							
	<p>The objective of this radioactive test bed is to demonstrate an innovative technology and new methodology for the NDE of 55-gallon drums using the actual TRU waste drums at WCS. The retrieval and unpacking of the drums from the MCCs and SWBs will be accomplished by separately.</p>							
	<p>Initially, \$250K will be obligated to deliver an engineering design with sufficient detail that allows for material ordering, equipment fabrication, and system assembly.</p>							
Submitted by:	Rodrigo V. Rimando, Jr.	<b>Exemption 6</b>			Date:	3/1/2016		
Headquarters Project Manager (Please Print & Sign)								
Field:	Waste Isolation Pilot Plant with EM-wide implications					Date:		
Field DOE Representative (Please Print & Sign)								

Approved by:		Date:
Office Director (Please Print & Sign)		
Approved by:	Frank Marcinowski	Date: 3/1/16
Associate Principal Deputy Assistant Secretary (Please Print & Sign)		
Submitted to:		Date:
EM-HQ Budget Analyst for TDD to complete AFP change		