

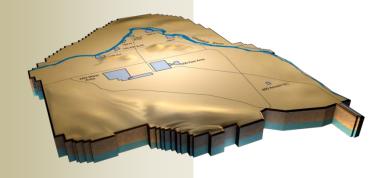
# Appendix A-1

# Contract Performance Reports ARRA

Format 1 - Work Breakdown Structure

Format 3 - Baseline

Format 5 - Explanation and Problem Analysis



April 2011 CHPRC-2011-04, Rev. 0 Contract DE-AC06-08RL14788 Deliverable C.3.1.3.1 - 1

# FORMAT 1, DD FORM 2734/1, WORK BREAKDOWN STRUCTURE

							7100010	CLASCII IOCI IONI (WIREII I IIIOU III)	liled iii)							
		CONTRA	CONTRACT PERFORMANCE R	REPORT							100	3 to observed T NI 964 I IOO	<u> (</u>	FORM APPROVED		
donor dance of		- I WAND	NORK BREAKDOWN	SINDCIONE				***************************************			DOLLARS IN	\$ 10 SDUBSDOLL	Ť	OMB NO. 0704-0188		
1. CONTRACTOR			Z. CUNIKACI				ņ	PROGRAM					*	. KEPOKI PEKIOD		
NAME CH2M HILL Plateau Remediation Company			<ol> <li>NAME</li> <li>Plateau Remediation Contract</li> </ol>	ontract			eri E	<ol> <li>NAME</li> <li>Plateau Remediation Contract</li> </ol>	n Contract				<del></del>	a. FROM (YYYYMMDD)	6	
b. LOCATION (Address and ZIP Code)			b. NUMBER				ā	b. PHASE							2011/03/28	
Richland, WA			RL14788											b. TO (YYYYMMDD)		
			c. <b>TYPE</b> CPAF		oi Ti	d. SHARE RATIO	σŽ	c. EVMS ACCEPTANCE NO YES X	TANCE TES X	9/18/2009					2011 / 04 / 24	
5. CONTRACT DATA																
8. QUANTITY	b. NEGOTIATED	C. ESTIMA	c. ESTIMATED COST OF ALITHORIZED LINDRICED WORK	d. TARGET PROFIT/		e. TARGET PRICE	f. ESTIMATED PRICE	ATED	g. CONTRACT	CELLING	h. ES	h. ESTIMATED CONTRACT CFII ING	СТ		I. DATE OF OTB/OTS	ည
	1,305,191		10,013	70,807		,375,998	1,386,011	J =	1,375,998	866		1,386,011				
6. ESTIMATED COST AT COMPLETION						7.	AUTHORIZED (	CONTRACTOR	. AUTHORIZED CONTRACTOR REPRESENTATIVE	VE						
	MANAGEMENT ESTIMATE AT COMPLETION	ESTIMATE ETION		SUDGET :	VARIANCE	<b>в</b> ш	a. NAME (L. Bang, M.V.	(Last, First, Middle Initial)	Initial)		<b>b. TITLE</b> Prime Contract Manager	anager				
	Ω		Ø		6											
a. BEST CASE	1,296,902	02					c. SIGNATURE							d. DATE SIGNED		
D. WORSI CASE G. MOST LIKELY	1,348,706	04	1,348,70	9	33,502									(TTTTMMDD)	2011/5/31	
8. PERFORMANCE DATA																
WBS[1]		CUR	CURRENT PERIOD				CUMI	CUMULATIVE TO DATE	<u> </u>		R	REPROGRAMMING		,	AT COMPLETION	
	BUDGETED COST	COST	ACTUAL	VARIANCE	8	BUDGETED COST	COST	ACTUAL	VARIANCE	NCE	_	ADJUSTMENTS				
	YOUN	YOUN	YOUN			VICON	MODIV	YOUN			Tacc	BUILDING		Catacalla	CETIMATED	VABIANCE
TEN	SCHEDULED	PERFORMED	PERFORMED	SCHEDULE	COST SCI	8	a	PERFORMED	SCHEDULE	COST	VARIANCE	VARIANCE	BUDGET			
(1)	(2)	(3)	(*)	<b>(9)</b>	(9)	9	(8)	(8)	(10)	(11)	(128)	(12b)	(13)	(14)	(15)	(16)
RL-0011.R1 PFP D&D	11,254	8,589	11,014	(2,665)	(2,426) 2	212,269	208,751	208,024	(3,518)	127	0 0	00	0 0	293,986	284,230	9,756
RE-0013C-R1.1 MELW Heatinetic	7, 1	13 334	10.873	1 476		95,527	30,022 183 138	186.446	(4,220)	(3 308)	o c	0 0	0 0	250.157	253 540	(3 392)
RL-0030.R1.1 GW Capital Asset	10,790	10,788	12,286	<u>8</u>		125,103	124,886	134,467	(217)	(9.580)	0	0	0	174,961	174,970	(6)
RL-0030.R1.2 GW Operations	1,889	2,111	3,090	223		71,349	71,169	66,057	(180)	5,111	0	0	0	83,113	88,836	(5,723)
RL-0040.R1.1 U Plant/Other D&D	6,607	5,498	7,264	(1,109)		164,232	160,375	149,956	(3,857)	10,419	0	0	0	200,565	188,329	12,236
RL-0040.R1.2 Outer Zone D&D	4,761	3,324	4,516	(1,437)	(1,192)	75,600	70,649	60,204	(4,951)	10,446	0	0	0	98,012	85,074	12,938
RL-0041.R1.1 100 K Area Remediation	6,588	4,414	5,063	(2,174)		154,885	151,612	152,673	(3,272)	(1,061)	0 (	0 (	0 (	181,829	174,464	7,365
b. Cost of Money	0 6	0 (	0 (	0 (	0 (	0 (	0 (	0 (	0 (	0 (	0 (	0 (	0 '	0 (	0 (	0 (
c. Gen. and Admin.	0	0	0		0	0	0	0	0	0	0	0	0	0 (	0 (	0 (
d. Undist. Budget						1								0 00	0000	0 00
e. Sub Total	000'40	300,54	700,00	(170'0)	(2000)		20.	387,34	(5,013)	4,402			0	404,056,1	706'067'	30,502
r. Mariagement nesiv. g. Total	54,860 49,339	49,339	55,032	(5,521)	(5,693)	1,030,016	1,007,403	992,941	(22,613)	14,462	0	0		1,348,706		
9. Reconciliation to CBB						į										
a. Variance Adjustment h Total Contract Variance									0 (22.613)	0 14.462				1.348.706	1.296.902	51804

# 1,292,093 TOTAL 1,330,404 266 0 0 19,131 18,914 Form Approved OMB No. 0704-0188 4. REPORT PERIOD a. FROM: 2011/3/28 b. TO: 2011/4/24 g. DIFFERENCE (E-F) I. EST COMPLETION DATE UNDISTRIB OUT YEARS (14) ₹17 f. TOTAL ALLOCATED BUDGET \$1,315,204 564,649 266 0 0 19,131 18,914 F41 565,906 FY10 k. CONT COMPLETION DATE Plateau Remediation Contract DOLLARS IN THOUSANDS 161,538 161,538 FY09 3. PROGRAM a. NAME: b. PHASE c. EVMS ACCEPTANCE 6+ Oct-11 +5 Sep-11 (8) 79,895 +4 Aug-11 43,832 43,751 46,712 +3 Jul-11 (6) c. CURRENT NEGOTIATED COST (A + B) \$1,305,191 CONTRACT PERFORMANCE REPORT FORMAT 3 - BASELINE Plateau Remediation Contract RL14788 CPAF +2 Jun-11 (5) 54,002 57,633 i. DEFINITIZATION DATE 2. CONTRACT a. NAME: b. NUMBER: c. TYPE: d. SHARE RATIO: b. NEGOTIATED CONTRACT +1 May-11 46,979 CHANGE \$1,305,191 BCWS FOR REPORT PERIOD 48,479 1,023,635 BCWS CUM TO DATE (2) AWARATH-1-00RDA ABSEGNES Abatement on Steam times per Changed order #88 PECAR-PPC-11-038380 Schedule Uopic Milestones & charter Gen. Adm. Changes. Agril 2011 BCPA-RAVI-1-00RSD Mobile Ground Survey Equipment Capital Procurement BCPA-PPC-11-03218 Transfer of Workdoore Restructuming to ARRA Only BCPA-PPC-11-03218 Transfer of Workdoore Restructuming to ARRA Only BCR-PPC-11-03218 Transfer of Workdoore Restructuming to ARRA Only a. ORIGINAL NEGOTIATED COST h. CONTRACT START DATE 4/9/2009 (BEGIN OF PERIOD) b. BASELINE CHANGES AUTH DURING REPORT PERIOD HEM 1. CONTRACTOR CH2M HILL Plateau Remediation Company b. LOCATION: Richland, WA c. PM BASELINE (END OF PERIOD) . PERFORMANCE DATA CONTRACT DATA

FORMAT 3, DD FORM 2734/3, BASELINE

# FORMAT 5, DD FORM 2734/5, EXPLANATION AND PROBLEM ANALYSIS

	CLASSIFICATION (When Filled In)									
CONTRACT PERFORMANCE REPORT FORMAT 5 - EXPLANATIONS AND PROBLEM ANALYSES								FORM APPROVED OMB No. 0704-0188		
1. CONTRACTOR		2. CONTRACT			3. PROGRAM			4. REPORT	PERIOD	
a. NAME CH2M HILL Plateau Remediation	on Company	a. NAME Plateau Remedia	tion Contract		a. NAME Plateau Remed	liation Contract		`	YYY/MM/DD) /3/28	
b. LOCATION (Ad Code)	dress and ZIP	b. NUMBER RL			b. PHASE ARRA			b. TO (YYY	Y/MM/DD)	
Richland, WA 9935	4	c. TYPE CPAF	d. SHARE RAT	10	c. EVMS ACC NO	EPTANCE 20 YES X	09/09/18	2011/4/24		
	BCWS	BCWP	ACWP	SV in \$	SV in %	CV in \$	CV %	SPI	СРІ	
Current:	54,860	49,339	55,032	(5,521)	-10.1%	(5,693)	-11.5%	0.90	0.90	
Cumulative:	1,030,016	1,007,403	992,941	(22,613)	-2.2%	14,462	1.4%	0.98	1.01	
	BAC	EAC	VAC in \$	VAC in %	CPI to BAC	CPI to EAC				
At Complete:	1,330,404	1,296,902	33,502	2.5%	1.0	1.1				

### **Explanation of Variance/Description of Problem:**

Current Period Schedule Variance: An unfavorable schedule variance occurs in the Direct Projects, specifically, RL11.R1 PFP D&D (-\$2.7M), RL-40.R1.1 (-\$1.1M), RL-40 R1.2 (-\$1.4M) and. RL-41.R1.1 (-\$2.2M), which is partially offset by the favorable schedule variances in RL-13C.R1.1 (+\$1.1M), RL-13C.R1.2 (+\$1.5M), and RL-30.R1.2 (+\$2.2M). For RL11.R1 PFP D&D, the unfavorable variance is a result of delays in completing D&D of 234-5Z and 242Z caused by contamination events and unexpected elevated levels of airborne radioactivity. For RL-13C.R1.1 Mixed Low Level Waste (MLLW) the favorable variance occurs in M-91-43 activities and other treatment activities and in Large Type A waste container shipments to PermaFix Northwest. For RL-13C.R1.2 TRU Waste favorable variances is due to efficiencies in RH/Large Package Commercial Repack resulting in a higher completion rate than planned. RL-30.R1.1 Groundwater Capital Assets and RL-30.R1.2 Groundwater Operations favorable variances are within reporting thresholds. For RL-40.R1.1 U Plant/Other D&D, the primary unfavorable variance is due to prior months completion of 209E Simi Works Zone and completion of 209EA in March when it was scheduled for completion in May and performance taken in previous months for the T-Plant zone building prep and Demo. For RL-40.R1.2, Outer Zone D&D the primary unfavorable variance is due to performance taken in previous months for Outer Area Waste Sites relating to 200-W-33, 216-N-6 and 6607 1/2/3. For RL-41.R1.1 100K Area Remediation the primary unfavorable variance resulted from the 100-K Group 1 Remediation ahead of schedule performance taken in prior months on numerous sites and 100-K Group 3 structures remediation being placed on hold due to Utilities Upgrades not being completed, from the 100-KW Fuel Debris campaign being completed ahead of schedule, and delays in the 105KE Reactor Interim Safe Storage activities due to delays in schedule slippages in other 100K activities

Current Period Cost Variance: The unfavorable cost variance occurred in: RL-11.R1 PFP D&D (-\$2.4M) the unfavorable variance is primarily a result of D&D work crews' inability to complete planned work (due to inability to work as a result of contamination events or high-levels of airborne radioactivity), and working on activities to recover from the event, for which no progress could be claimed; RL-30.R1.1 Groundwater Capital Assets (-\$1.5M) primarily due to delayed cost transfer associated with implementation of BCRA-R30-004R0 "Transfer of Scope Between ARRA Subprojects.. RL-30.R1.2 Groundwater Operations (-\$1.0M) primarily due to ZP-1 Pump-and-Treat modifications alignments and decommission of Non-Tank Farm Wells where additional technical support driven by potential health concerns at the decommissioning sites; RL-40.R.1.1 U Plant/Other D&D (-\$1.8M) primarily in U Plant Zone D&D due to mobilization and startup costs for the U Canyon grouting contractor as well as additional core drills; RL- 40.R1.2 Outer Zone D&D (-\$1.2M) where re-vegetation was mostly in March, but a large portion of the costs weren't received until April; and RL-41.R1.1 100K Area Remediation (-\$.6M) where the100-K Group 1 Structure Remediation activities for 117KE Exhaust Filter had unexpected concrete found below the foundation of the facility resulting in increased cost, increased cost for lay-back dirt on 1706KE/KER since the removed dirt was contaminated and numerous insignificant positive and negative variances. The unfavorable variance is slightly offset by favorable cost variances occurring in RL-13C.R1.1 MLLW Treatment (+\$.4M) delay in receipt of costs for 435.1 waste disposal and efficiencies in Large Type A waste container shipments to Perma-Fix Northwest; RL-13C.R1.2 TRU Retrieval (+\$2.5M) is due to delay in receipt of costs for RH/Large Package Commercial Repack and efficiencies in TRU Characterization and Shipping and T-Plant.

**Cumulative Schedule Variance:** An unfavorable cumulative schedule variance (-\$22.6M) exists, however all AARA Subprojects schedule variances are within reporting thresholds.

**Cumulative Cost Variance:** The favorable cumulative cost variance (+\$14.5M) occurs in all Direct Projects supporting ARRA work scope and are within reporting thresholds except RL-30.R1.1 Groundwater Capital Assets where the unfavorable variance associated with the ZP-1 Pump-and-Treat project is the result of performance being under stated resulting in BCWP that is lower than the ACWP for the primary construction contractor and the remaining variance is impacted by design changes associated with civil/structural work and procurement/installation of the prefabricated metal buildings on the project.

# FORMAT 5, DD FORM 2734/5, EXPLANATION AND PROBLEM ANALYSIS

### Impact:

**Current Period Schedule:** For RL-40.R1.1 and RL-41.R1.1 the current period schedule impacts are the same as the CTD schedule impacts (see below). For RL-11R.1 the primary impact is in D&D of process and lab areas and getting Z/ZB Complex ready for demolition. For RL-13C.R1.2 recovery plans are being implemented for the CH TRU Retrieval issues associated with the significantly deteriorated containers. For RL-30.R1.1 - there are no impacts as the variance is minimal. For RL-40.R1.2, there are no impacts providing there is swift resolution of site priorities.

**Current Period Cost:** For RL-40.R1.2, RL-40.R1.1 and RL-13CR1.1 there is no significant cost impact for the current period. For RL-30.R1.1 and RL-30.R1.2, the unfavorable cost variances on the 100DX P&T, the 200W P&T and the capital EPC Construction/GPP S&GW will be monitored. For RL-41.R1.1 the unfavorable cost variances on the 100K Reactor Power/River Water isolation work will be monitored. For RL-11.R1 the cost impacts have been factored into the forecast.

CTD Schedule: For RL-41.R1.1 100K River Water and Reactor Power Isolation delays ultimately delay structure demolition and waste site remediation. Additional soil contamination (realized risk) is beginning to impact the schedule. For RL-13C.R1.2 recovery plans are being implemented for the CH TRU Retrieval issues associated with the significantly deteriorated containers. For RL-11R.1 focusing D&D field work teams on completing the KPP for glovebox removal and readying the Z/ZB complex for demolition will delay other planned FY11 work scope. Schedule delays, due to stop works and contamination events, have put the September 30, 2011, KPP completion at risk. For RL-30.R1.1 the SV is related to long lead procurements, the impact is minimal as the behind schedule items are set for delivery in May and are not impacting critical path. For RL-30.R1.2 there are no impacts as the variance is minimal. For RL-40.R1.1 D&D of U-plant Cell 30 is impacted by holdup material being greater than anticipated (realized risk) causing project re-evaluation and no progress being made; insulator shortage for asbestos abatement is slowing down completion; more soil contamination than expected (realized risk) and extensive regulatory reviews (realized risk) are delaying waste site remediation completion. For RL-40.R1.2 remediation of O-Zone sites, informally, it has been agreed to remove the low priority waste sites from the baseline; therefore, there will be no impact.

CTD Cost: For RL-40.R1.1, RL-40.R.1.2 and RL-41.R1.1 there is overall positive cost impact due to project efficiencies. There is no impact to cost for all other subprojects, except RL-13C.R1.2, which has increased material and labor costs in support of the Trench Face Retrieval and Characterization System (TFRCS), coupled with increased support and management costs for CH TRU retrieval issues associated with significantly deteriorated containers. For RL-30.R1.1 the variance will continue to be monitored. For RL-30.R1.2 efficiencies in well drilling activities (NR-2 & HR-3) as well as multi-incremental sampling, borehole drilling, and landfill characterization activities have resulted in additional favorable cost variances. For RL-11.R1 an over-run in D&D is forecast, due to higher overtime required to mitigate schedule impact. This is offset by the forecast under-runs in overhead and cross-cutting support.

### **Corrective Action:**

**Current Period Schedule:** For RL-11.R1 the focus continued on Priority #1--achieving the September 30, 2011, Key Performance Parameter (KPP). For RL-40.R1.1 and RL-41.R1.1 the current period schedule corrective actions are the same as CTD schedule corrective actions (see below). For RL-40.R1.2 O-Zone waste sites, there is no corrective action required. For RL-30.R1.1 no corrective actions required. For RL-30.R1.2 no corrective actions required. For RL-13C.R1.1 MLLW, no corrective actions required (M-91-42 waiting feed from TRU Retrieval Recovery Plan).

**Current Period Cost:** For RL-11.R1 there is no required corrective action. For RL-30.R1.1 the 200W P&T cost variance is being evaluated and monitored. For RL-30.R1.2 cost variance is being evaluated and monitored. For RL-41.R1.1 current period cost corrective actions are the same as the CTD cost corrective actions (see below). For RL-40.R1.1 U-Plant current cost variances can be covered by efficiencies in other D&D areas. For RL-40.R1.2 O-Zone Waste Site there is no required corrective action for the current period cost variance.

CTD Schedule: RL-41.R1.1 has implemented a BCR to address additional soil contamination (realized risk). Schedule recovery actions are being evaluated to recover the D&D structure demolition and waste site remediation schedule activities where they can to offset where other demolition and remediation activities have been delayed. For RL13C.R1.2 recovery plans are being implemented for the CH TRU Retrieval issues associated with deteriorated containers. For RL-11.R1 Nuclear Safety is working to implement the RL-approved Justification for Continued Operation to address the 242Z Leak Path Factor/periphery confinement barrier issues; completion in May. PFP is briefing CHPRC senior management on actions that can be taken to mitigate the risk of achieving the September 30, 2011 KPP. For RL-40.R1.2 O-Zone waste sites, informal agreement has been reached to remove the low priority waste sites from the baseline. For RL-40.R.1.1 D&D structure demolition activities are being accelerated where they can to offset where other demolition activities are delayed. For RL-30.R1.1 200W P&T LLE procurements will continue to be monitored until completion. For RL30.R1.2 no corrective action required.

CTD Cost: For RL-40.R1.2 no corrective actions are required. For RL-13C.R1.1 the favorable cost variance is expected to continue. For RL-30.R1.1 the 200W P&T cost variance is being evaluated and monitored, under stated performance will be corrected in May. For RL-30.R1.2 efficiencies in well drilling activities (NR-2 & HR-3) as well as multi-incremental sampling, borehole drilling, and landfill characterization activities will remain requiring no corrective action at this time. For RL-11.R1 efficiencies expected from use of Aspigel®, new containment approach, revised SCO process, and leaving equipment in place for removal during demolition will not completely mitigate the increased staff/overtime required to maintain schedule. For RL-13C.R1.2, RL-40.R1.1 and RL-41.R1.1 no corrective actions are required at this time.

Monthly Summary: (to include technical causes of VARs, Impacts, and Corrective Action(s):

All ARRA Subproject's cumulative to date cost and schedule variances are within reporting thresholds or favorable except for RL-13C.R1.1 Mixed Low Level Waste (MLLW), RL-30.R1.1 Groundwater Capital Assets and RL- 40.R1.2 Outer Zone D&D. Overall, the current period schedule and cost variances are mixed between favorable and unfavorable performance and the cumulative to date schedule variance has continued to decrease while the favorable cost variance has continued to declined. RL-11.R.1 PFP D&D Recovery Plan has impacted both monthly and cumulative to date schedule variances however, continued challenges in preparing gloveboxes in 234-5Z is driving up the variances this month. RL-13C.R1.1 MLLW Treatment unfavorable cumulative to date schedule variance was slightly reduced this month vith increased waste shipments. RL-13C.R1.2 TRU Waste, unfavorable cumulative to date cost and schedule variance was significantly reduced this month resulting from efficiencies in the alternative approach for RH/Large Package TRU-Repack size reduction and repackaging services resulting in a higher completion rate than planned. RL-30.R1.1 Groundwater Capital Assets cumulative to date unfavorable schedule variance continues to improve which reflects receipt of procurements and construction of the ZP-1 P&T and the implementation of BCR-PRC-11-032R0, "200W Pump & Treat IFC Cost/Schedule Revision"; the monthly and cumulative to date unfavorable cost variances have been impacted by

# FORMAT 5, DD FORM 2734/5, EXPLANATION AND PROBLEM ANALYSIS

lagging cost transfers associated with the BCR implemented during the period and performance on construction is under stated which will be corrected in May reporting. Cost impacts from IFC changes and other design changes will continue to be managed by the project. RL-30.R1.2 Groundwater Operations cumulative to date schedule variance is improving and is approaching positive. Cost Variance is positive. RL-40 R1.1 U Plant/Other D&D current month cost and schedule variances primarily reflect the U-Plant Zone D&D contractor mobilization and start up cost where no performance is taken. RL-40.R1.2 Outer Zone D&D continues to have an unfavorable current month cost and schedule due to site availability delays but should be resolved by year end. RL-41.R1.1 100K Area Remediation unfavorable monthly and cumulative schedule and cost variances with improved estimates for 100K Core and ISS baseline adjustments to be implemented next month.

### Contractually Required Cost, Schedule, EAC variance, Management Reserve Use

**Variance in Performance BAC and EAC:** The variance at complete (VAC) between the BAC and EAC this month is positive \$33.5 million and 2.5%. This variance is within threshold for the Project. Furthermore, the VACs at each project baseline summary (PBS) are also within the threshold limit. For information, the VAC threshold limit is +or- 5% and +or- \$15 million.

**Use of Management Reserve:** Management reserve, in the amount \$5.2 million, is used in April 2011, as documented in change request BCR-PRC-11-032R0. Specifically, \$5.2 million in PBS RL-0030 is used for four (4) realized risks associated with design and construction of the 200W Pump-and-Treat facility as documented in change request BCR-PRC-11-032R0. Overall, management reserve in April 2011 is *reduced* from \$23.5 million to \$18.3 million.

**Best/Worst/Most Likely Estimate:** The Best EAC is the EAC reported this month, which assumes all efficiencies gained contract-to-date will remain at completion with no use of management reserve. The most likely EAC is the EAC reported this month plus the to-go (available) management reserve, which assumes all efficiencies gained contract-to-date will remain at completion but all available management reserve is used (e.g., all identified risks realized). The worst EAC is the BAC reported this month plus the to-go (available) management reserve, which assumes all efficiencies gained contract-to-date will be eroded at completion and all available management reserve is used (e.g., all identified risks realized). The Best/Worst and Most Likely EAC values are documented in the Format 1 Report.

Prepared by:	Date:	Approved by:	Date:
Schilling, Bert	5/31/11		

(1) = Trench Face Process System; (2) = Trench Face Retrieval & Characterization System; (3) = Remove, Treat and Dispose; (4) = Confirmatory Sampling/No Action; (5) Project Specific Distributables Rewards & Recognition Program; (6) Defense Contract Audit Agency