

MISSION SUPPORT ALLIANCE

"WE WILL MEASURE OUR SUCCESS BY OUR CUSTOMERS' SUCCESS"



Monthly Performance Report December 2016

W. K. Johnson
President

U.S. Department of Energy
Contract DE-AC06-09RL14728



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ACRONYMS LISTING



This list of acronyms is intended as a reference for the reader to provide definitions that are not readily available away from the Hanford Site.

TERMS

AMB	Assistant Manager for Business and Financial Operations
AMMS	Assistant Manager for Mission Support
AMRP	Assistant Manager for River and Plateau
AMSE	Assistant Manager for Safety and Environment
BCR	Baseline Change Request
BO	Business Operations
CHPRC	CH2MHILL Plateau Remediation Company
CTD	Cost-to-Date
CV	Cost Variance
DART	Days Away Restricted Transferred
DLA	Direct Labor Adder
DOE	U.S. Department of Energy
ECOLOGY	State of Washington, Department of Ecology
EM	Office of Environmental Management
ES	Emergency Services
ES&H	Environment, Safety, and Health
FY	Fiscal Year
FYTD	Fiscal Year to Date
HAMMER	Volpentest Hazardous Materials Management and Emergency Response Training and Education Center
HCAB	Hanford Contract Alignment Board
HLAN	Hanford Local Area Network
HQ	Headquarters
HRIP	Hanford Radiological Instrumentation Program
HSPD	Homeland Security Presidential Directive
IH	Industrial Hygiene
IM	Information Management
IIP	Integrated Investment Portfolio
ISAP	Infrastructure and Services Alignment Plan
ISMS	Integrated Safety Management System
LMSI	Lockheed Martin Services, Inc.
MSA	Mission Support Alliance, LLC
MSC	Mission Support Contract

ACRONYMS LISTING



NEPA	National Environmental Policy Act
OCCB	Operational Change Control Board
ORP	Office of River Protection
PFM	Portfolio Management
PFP	Plutonium Finishing Plant
PMB	Performance Measurement Baseline
PMTO	Portfolio Management Task Order
PNNL	Pacific Northwest National Laboratory
PO	Presidents Office
POSP	Parent Organization Support Plan
PPE	Personal Protection Equipment
PTA	Patrol Training Academy
PW	Public Works
RHP	Risk Handling Plan
RL	Richland Operations Office
SAS	Safeguards & Security
SS&IM	Site Services and Interface Management
SV	Scheduled Variance
T&CO	Training and Conduct of Operations
TRC	Total Recordable Case
UBS	Usage-Based Services
VoIP	Voice over Internet Protocol
VPP	Voluntary Protection Program
WBS	Work Breakdown Structure



1.0 INTRODUCTION

The Executive Overview section is intended to provide an executive-level performance overview. Included herein are descriptions of the Mission Support Alliance, LLC (MSA) significant accomplishments considered to have made the greatest contribution toward safe, environmentally sound, and cost-effective, mission-oriented services; progress against the contract with U.S. Department of Energy (DOE) Richland Operations Office (RL); project cost summary analysis; and overviews of safety. Unless otherwise noted, all data provided is through December 2016.

1.1 KEY ACCOMPLISHMENTS

Environmental Air Monitoring Station Efficiency – Ambient air samples are collected on/near the Hanford site to provide data required for radiological dose calculations to the public and/or to provide compliance monitoring data for projects/facilities that have required monitoring per state and/or federal regulations. Public Safety & Resource Protection, Environmental Surveillance staff analyzed the operational statistics of the environmental [ambient] air sampling stations for the most recent available sample collection period (through November 30, 2016) and for the coinciding previous 12-month period. For the current period, the stations operated at 97.3 percent efficiency with a sample collection proficiency of 97.9 percent. For the 12-month period, the stations operated at 97.0 percent efficiency with a sample collection proficiency of 97.9 percent.

Streamline of Resource Conservation and Recovery Act (RCRA) Processes – MSA, along with Office of River Protection, RL, Hanford contractors and the State of Washington, Department of Ecology, worked to create a streamlined process and flowchart for RCRA permitting. Permitting efforts in the future can rely on the process as a guide or desk instruction to save time, money and to ensure no details are overlooked in a complicated and important process to achieve permits. The team also reviewed the Tri-Party Agreement and Washington State laws.

Resolution of Stop Work and Return to Cultural Resources Monitoring for 316-4 Waste Site Remediation – Public Safety & Resource Protection, Cultural and Historic Resources Program (CHRP) staff, worked with the CH2M Hill Plateau Remediation Company Remediation Project to develop a path forward in response to changes in safety requirements at the 316-4 waste site. Remediation of the 316-4 waste site requires monitoring by an archaeologist to maintain compliance with existing cultural reviews. A recent discovery of unanticipated waste material caused a reevaluation of safety measures for all personnel on the project. New procedures and protocols were

established that will allow CHRP staff to conduct monitoring in a safe and effective manner.

Hanford Fire Protection Program Procedures Assessment – The Hanford Fire Department received RL's report on December 28, 2016, for the Hanford Fire Protection Program Pre-Fire Strategies, Plans and Standard Operating Procedures Assessment that was conducted April 14-May 27, 2016. There were no findings or suggestions identified in this assessment, and the overall rating is satisfactory.

Snow Removal Activities – Throughout December, in an effort to maintain the Hanford Site roads in the safest condition possible, MSA Roads and Grounds crews applied 12,000 gallons of liquid de-icer, in excess of 2,000 tons of granular salt, and provided snow removal activities. For more than 20 days, snow removal activities included plowing roads, parking lots, and sidewalks. Because of adverse weather conditions, Roads and Grounds crews also replaced approximate 50 signs that had been damaged/broken due to snow removal activities and accidents caused by adverse weather conditions.



*Snowplows/sanders
ready for adverse weather*



*Granular material
loaded into snowplows*

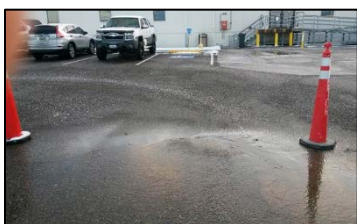
Relocation of RL Personnel – In December, MSA completed the move of RL personnel from the Federal Building in Richland, WA to the second floor of the 2430 Building in the Stevens Center Complex. The relocation of RL personnel to the first floor of the 2430 Building is scheduled to be completed by January 31, 2017. For several months in advance, the Real Estate Services organization had worked with RL to plan and execute the move. Additionally, building modifications are underway for the relocation of other RL personnel to 2420 Stevens Center Complex.

Electrical Utilities (EU) Equipment Inspections – In December, EU staff completed infrared inspections on the Hanford 230kV Electrical Transmission System. Images collected will be reviewed to determine if any anomalies exist in the components. This technology allows system operators to detect heat signatures (precursors to equipment deterioration) within the operating equipment. This investigative process provides the transmission operator an early warning system to perform corrective maintenance and prolong the life of the transmission system.



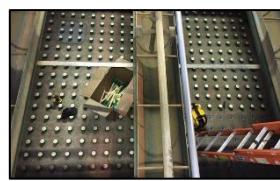
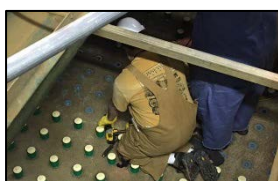
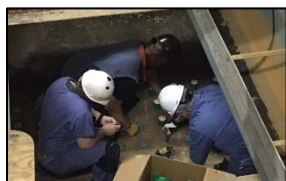
Infrared inspection of electrical transmission system

Broken Water Line Excavation and Repair – On December 22, 2016, Maintenance Services and Motor Carrier Services crews completed excavation of a broken water line for Mobile Office (MO) 720 and MO721. Crews were able to restore potable water service to the facility after repairs were completed on December 27, 2016. This was a high priority job for the CH2M HILL Plateau Remediation Company.



Excavation/repair of broken water line

Installation of Filter Bed Nozzles – On December 22, 2016, Maintenance Services staff, with support from MSA's Crane & Rigging and Water Utilities (WU) crews, completed the installation of nozzles in filter beds #3 and #4 at the 283 West Water Treatment Plant. WU workers were then able to initiate backwashing activities on the newly installed nozzles. This was a high-priority project for WU that allowed for the rebuilding of filter beds without significantly impacting operations.



Nozzles installed in Filter Beds #3 and #4

Risk Assessments (RA) Revised – Cyber Security finalized new revisions of the Hanford Accreditation Boundary (HAB) System Security Plan and the HAB RA. Both documents were reviewed and approved by the Information System Security Manager and the primary Information System Security Officer. They are currently being routed for approval by the U.S. Department of Energy (DOE) Authorizing Official Designated Representative and the Authorizing Official.

Regulatory and Management Assessment Process (RMAP) Issue Resolved – In December, MSA Information Management RMAP worked to resolve a customer-requested RMAP issue. Work on the test plan and procedure was completed, and signatures were gathered for documentation. In addition, the Production Readiness Review Board approved the Version Description Document. The RMAP production database and web application servers were created. Implementation was completed on December 14, 2016.

Analytical Tools – Portfolio Management (PFM) continued development of the first of a kind Scope Management Information System (SMIS). The vision and purpose of SMIS is to generate, retrieve, display, analyze, and save data based on various program baseline planning cases. This system will allow RL projects to define cleanup mission program scope into manageable portions and create a Performance Measurement Baseline (PMB) for the current and future Hanford site acquisitions. As part of SMIS, PFM has developed the new Baseline Change Request upload process and application, which was released on December 8, 2016.

HAMMER Staff Attends Transportation Rail Incident Preparedness and Response Workshop – Throughout the month of December, enrollment for the Hazardous Material Regulations online modules, created by HAMMER for the U.S. Department of Transportation's Pipeline Hazardous Materials Safety Administration Office of Hazardous Material Safety continued to climb. From July 11, 2016, through December 2016, total enrollment for the 10 modules reached 56,000.



TRIPR workshop participants

SCBA Trials – The self-contained breathing apparatus (SCBA) Phase 2 field trials were completed at HAMMER in early December. This effort, supported by several HAMMER worker-trainers and staff, successfully evaluated and identified new SCBA equipment for Site use. The equipment for Phase 2 was chosen after a series of factory representative presentations and a vendor fair at HAMMER in which each manufacturer had an opportunity to display their products and answer questions from those in attendance.



SCBA Equipment

The next steps in this process will include a final report and recommendations outlining the equipment to be purchased and taken into Phase 3 testing, actual in-field trials, and usage. HAMMER is preparing for the Phase 3 in-field trials by organizing training materials, qualifying worker-trainers, and working with Washington River Protection Solutions representatives to determine the training schedule for the workers who will use the equipment during the field trials.



2.0 ANALYSIS OF FUNDS

Table 2-1. Mission Support Alliance, LLC Funds Management (dollars in thousands).

Funds Source PBS	Title	MSA Expected Funding	RL Undistributed Funds	RL/MSA Expected Funding	* Funds Received	FYTD Actuals	Remaining Available Funds from Funds Received
ORP-0014	Radiological Liquid Tank Waste Stabilization and Disposition Operations	\$150.5	\$295.7	\$446.2	\$446.3	\$145.6	\$300.7
HSPD (RL11,12,13,30)	Homeland Security Presidential Directive 12	\$1,144.0	\$0.0	\$1,144.0	\$1,143.8	\$518.2	\$625.6
RL-0020	Safeguards & Security	\$70,619.3	\$6,833.8	\$77,453.1	\$32,553.1	\$14,952.4	\$17,600.7
RL-0040	Reliability Projects/HAMMER/ Inventory	\$53,135.8	\$1,310.4	\$54,446.2	\$16,139.3	\$3,708.5	\$12,430.8
RL-0041	B Reactor	\$6,094.9	\$42.7	\$6,137.6	\$5,242.5	\$757.6	\$4,484.9
SWS	Site-Wide Services	\$209,254.4	\$20,077.3	\$229,331.7	\$91,730.7	\$40,339.0	\$51,391.7
Total		\$340,398.9	\$28,559.9	\$368,958.8	\$147,255.7	\$60,421.3	\$86,834.4

FYTD = Fiscal Year to Date.

HAMMER = Volpentest HAMMER Training and
Education Center.

PMTO = Portfolio Management Task Order.

EAC = Estimate at Completion.

PBS = Project Baseline Summary.

SWS = Site-Wide Services.

PD = Project Development.

* Funds received through Contract Modification 570, dated January 19, 2017

The remaining uncosted carryover balance will fund SWS through April 6, 2017, and RL20 through March 30, 2017, based on a burn rate utilizing FYTD 2017 actual costs.



3.0 SAFETY PERFORMANCE

There were two injuries classified as “recordable” during the month of December. Both of these injuries resulted in a days away, restricted or transferred (DART) classification. Therefore, the fiscal year 2017 total recordable case (TRC) and DART rates are 0.44. These injury rates are below the EM performance goals of 1.1 (TRC) and 0.60 (DART).

Due to recent adverse weather conditions, the Hanford Site has experienced work delays and cancellations. Great focus has been placed on preventing slips, trips and falls; MSA had six slip, trip or fall injuries reported in December. Communications have been enhanced to advise employees of hazardous weather and road conditions. All employees have been encouraged to call the hotline or listen to the radio to get the most up-to-date information prior to leaving their home and/or while on the way to work. Back to work Safety Starts and monthly safety meetings have emphasized situational awareness on changing or adverse weather conditions and employees have been reminded to take extra caution when walking in parking lots and walkways. Additionally, personal protective equipment, such as anti-slip footwear gear, is available for all employees.

MSA has analyzed the comments, suggestions and concerns captured during the company-wide “safety reset” that was conducted on November 28, 2016. This activity provided the opportunity for teams to have safety-focused conversations that were tailored to their specific work circumstances and challenges. Items will be entered into safety logbooks and tracked to completion, added to the 2017 Safety Improvement Plan or developed into safety messages for delivery throughout 2017.



Table 3-1. Total Recordable Case Rate, (TRC)

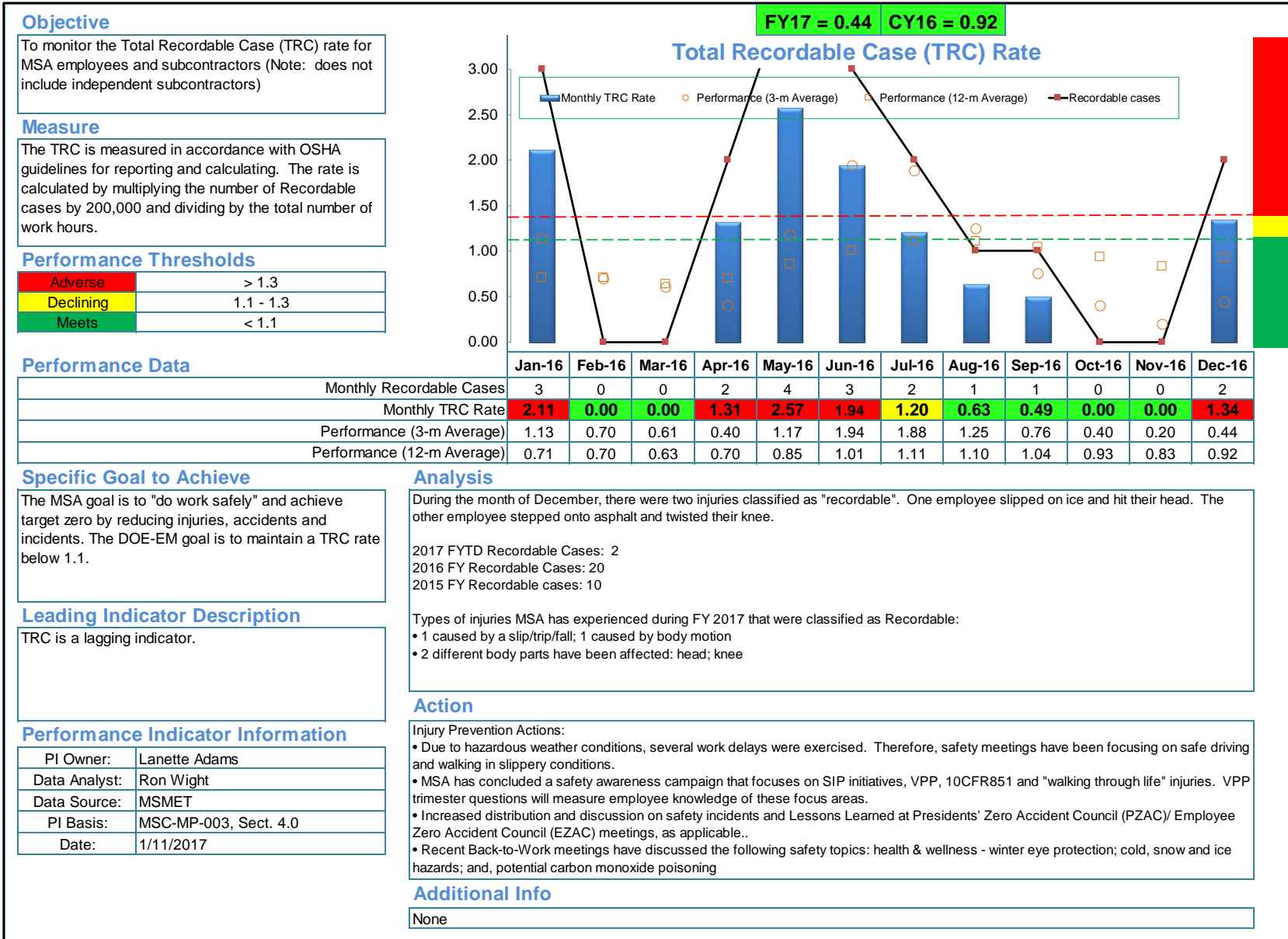


Table 3-2. Days Away, Restricted, Transferred, (DART)

Objective

To monitor the days away, restricted or transferred (DART) case rate for MSA employees and subcontractors

Measure

The DART rate is measured in accordance with OSHA guidelines for reporting and calculating. The rate is calculated by multiplying the number of Recordable cases by 200,000 and dividing by the total number of work hours.

Performance Thresholds

Adverse	> 0.75
Cautionary	0.6 - 0.75
Meets EM goal	< 0.6

Performance Data

	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
Monthly DART Cases	1	0	0	2	3	3	1	0	0	0	0	2
Monthly DART rate	0.70	0.00	0.00	1.31	1.93	1.94	0.60	0.00	0.00	0.00	0.00	1.34
Performance (3-m Average)	0.45	0.23	0.20	0.40	0.98	1.73	1.47	0.83	0.19	0.00	0.00	0.44
Performance (12-m Average)	0.49	0.49	0.42	0.48	0.59	0.74	0.79	0.79	0.68	0.57	0.52	0.62

Specific Goal to Achieve

The MSA goal is to "do work safely" and achieve target zero by reducing injuries, accidents and incidents. The DOE-EM goal is to maintain a DART rate below 0.6.

Lagging Indicator Description

A lagging indicator is a record of past events. DART rate is a lagging indicator that may show a trend in serious injuries.

Performance Indicator Information

PI Owner:	Lanette Adams
Data Analyst:	Ron Wight
Data Source:	MSMET
PI Basis:	MSC-MP-003, Section 4.0
Date	1/11/2017

Analysis

During the month of December, there were two injuries classified as DART. One employee slipped on ice and hit their head. The other employee stepped onto asphalt and twisted their knee.

2017 FYTD DART Cases: 2
2016 FY DART Cases: 13

Types of injuries MSA has experienced during FY 2017 that were classified as DART:

- 1 caused by a slip/trip/fall; 1 caused by body motion
- 2 different body parts have been affected: head; knee

Action

Injury Prevention Actions:

- Due to hazardous weather conditions, several work delays were exercised. Therefore, safety meetings have been focusing on safe driving and walking in slippery conditions.
- MSA has concluded a safety awareness campaign that focuses on SIP initiatives, VPP, 10CFR851 and "walking through life" injuries. VPP trimester questions will measure employee knowledge of these focus areas.
- Increased distribution and discussion on safety incidents and Lessons Learned at PZAC/EZAC meetings, as applicable..
- Recent Back-to-Work meetings have discussed the following safety topics: health & wellness - winter eye protection; cold, snow and ice hazards; and, potential carbon monoxide poisoning

Additional Info

None

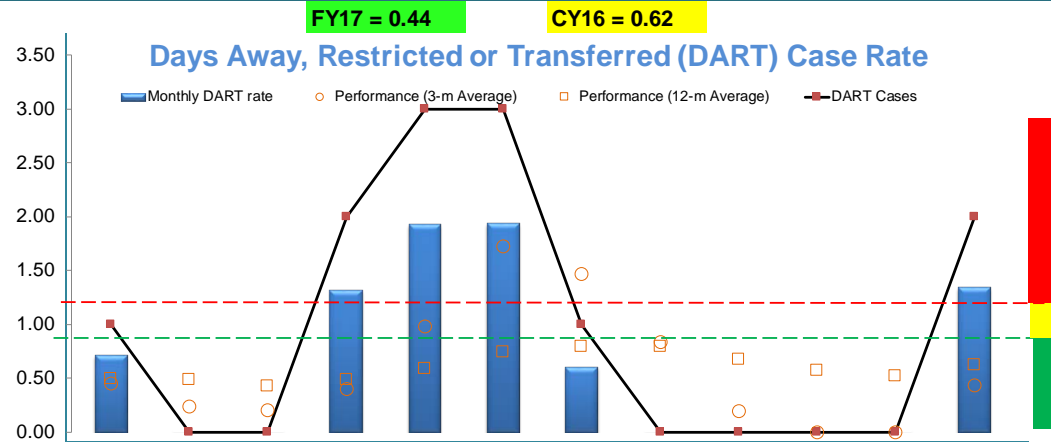




Table 3-3. First-Aid Case Rate

Objective

To monitor the number of First Aid cases and rate as a leading indicator to days away, restricted, or transferred (DART) and Total Recordable Case (TRC) rates for MSA and subcontractor employees.

Measure

The metric is a count of the number of First Aid cases per month, and the rate of cases. The rate is calculated by multiplying the number of First Aid cases by 200,000 and dividing by the total number of work hours for a given period.

Performance Thresholds

Adverse	n/a
Declining	n/a
Meets	n/a

Performance Data

	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16
First Aid Cases	3	6	11	13	11	11	14	8	6	8	8	9
Monthly First Aid Rate	2.11	4.00	5.43	8.51	7.07	7.10	8.37	5.03	2.95	5.64	4.80	6.01
Performance (3 month Average)	2.95	3.94	4.04	5.94	6.85	7.55	7.54	6.86	5.29	4.36	4.30	5.45
Performance (12 month Average)	4.03	4.17	4.47	5.03	5.22	5.24	5.21	5.36	5.40	5.24	5.53	5.55

Specific Goal to Achieve

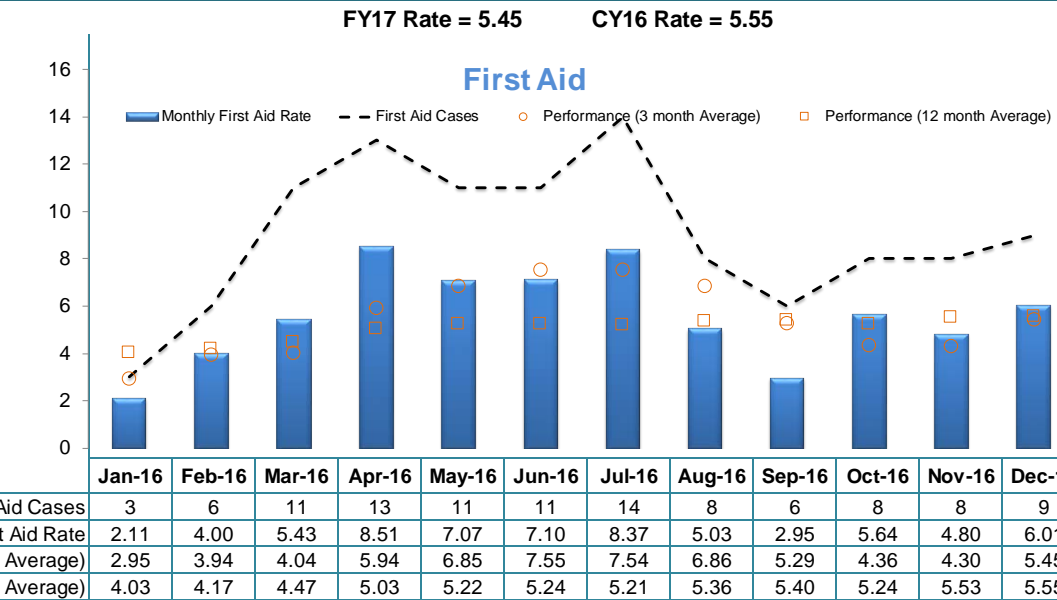
The goal is to "do work safely" and achieve target zero by reducing injuries, accidents and incidents while encouraging reporting of all minor injuries.

Leading Indicator Description

Non-reportable precursors are a leading indicator to reportable events. An increase in the number of First Aid cases could indicate a potential increase of more significant events.

Performance Indicator Information

PI Owner:	Lanette Adams
Data Analyst:	Ron Wight
Data Source:	MSMET
PI Basis:	MSC-MP-003 Sect. 4.0
Date	1/11/2017

**Analysis**

December concluded with nine First Aid injury cases which is above the average number of First Aid cases for MSA in a given month. The cases were a result of the following causes: two cases of employees injured from a slip on ice; three instances of strains from overexertion; one case from struck by; one case from walking down stairs; one case from caught between; and, one case of eye irritation from an unknown source. The body parts injured included finger (2), knee(2), shoulder (1), wrist (2), back (1), and eye (1).

FY2016 First Aid Cases: 104, FY2016 First Aid Case Rate= 5.40

FY2017 First Aid Cases: 25

Types of injuries MSA has experienced during FY 2017 that were classified as First Aid:

- 28% by body motion, 24% were caused by overexertion, 12% by a slip/trip/fall, 12% from being struck by, 8% from contact with.
- 46% arm/hand injuries, 20% leg/foot injuries, 10% head/eye injuries, 6% back injuries

Actions

Injury Prevention Actions:

- Due to hazardous weather conditions, several work delays were exercised. Therefore, safety meetings have been focusing on safe driving and walking in slippery conditions.
- MSA has concluded a safety awareness campaign that focuses on SIP initiatives, VPP, 10CFR851 and "walking through life" injuries. VPP trimester questions will measure employee knowledge of these focus areas.
- Increased distribution and discussion on safety incidents and Lessons Learned at PZAC/EZAC meetings, as applicable..
- Recent Back-to-Work meetings have discussed the following safety topics: health & wellness - winter eye protection; cold, snow and ice hazards; and, potential carbon monoxide poisoning

Additional Info

None



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

Table 4-1. Format 1, DD Form 2734/1, Work Breakdown Structure

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE										DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0188	
1. Contractor		2. Contract		3. Program		4. Report Period							
a. Name Mission Support Alliance		a. Name Mission Support Contract		a. Name Mission Support Contract		a. From (2016/11/21)							
b. Location (Address and Zip Code) Richland, WA 99352		b. Number RL14728		b. Phase Operations		b. To (2016/12/25)							
c. TYPE CPAF		d. Share Ratio		c. EVMS ACCEPTANCE No X Yes									
5. CONTRACT DATA													
a. QUANTITY	b. NEGOTIATED COST	c. ESTIMATED COST OF AUTHORIZED UNPRICED WORK	d. TARGET PROFIT/FEE	e. TARGET PRICE	f. ESTIMATED PRICE	g. CONTRACT CEILING	h. ESTIMATED CONTRACT CEILING	i. DATE OF OTB/OTS					
N/A	\$3,421,869	\$0	\$210,082	\$3,631,951	\$3,816,236	N/A	N/A	N/A					
6. ESTIMATED COST AT COMPLETION						7. AUTHORIZED CONTRACTOR REPRESENTATIVE							
		CONTRACT BUDGET BASE (2)		VARIANCE (3)		a. NAME (Last, First, Middle Initial) Wickham, Robert Robert William K.		b. TITLE MSC Project Manager					
a. BEST CASE		\$3,421,870				c. SIGNATURE [Signature]		d. DATE SIGNED 1-30-17					
b. WORST CASE		\$3,786,461											
c. MOST LIKELY		\$3,606,153		3,421,869		(184,284)							
8. PERFORMANCE DATA													
Item (1)	Current Period						Cumulative to Date				At Completion		
	Budgeted Cost		Actual Cost Work Performed (4)	Variance		Budgeted Cost		Actual Cost Work Performed (9)	Variance		Budgeted (12)	Estimated (13)	Variance (14)
	Work Scheduled (2)	Work Performed (3)		Schedule (5)	Cost (6)	Work Scheduled (7)	Work Performed (8)		Schedule (10)	Cost (11)			
a. WORK BREAKDOWN STRUCTURE ELEMENT													
3001.01.01 - Safeguards and Security	4,468	4,468	4,967	0	(499)	417,093	417,093	431,115	0	(14,022)	542,303	565,651	(23,347)
3001.01.02 - Fire and Emergency Response	1,533	1,533	2,272	0	(738)	145,091	145,091	165,251	(0)	(20,159)	188,038	220,915	(32,877)
3001.01.03 - Emergency Management	485	485	359	0	126	39,963	39,963	33,289	0	6,674	53,540	45,972	7,568
3001.01.04 - HAMMER	254	254	507	0	(253)	44,628	44,628	52,771	(0)	(8,143)	51,502	64,000	(12,498)
3001.01.05 - Emergency Services Management	238	238	354	0	(116)	8,317	8,317	9,484	(0)	(1,167)	12,952	15,564	(2,612)
3001.02.01 - Site-Wide Safety Standards	29	29	112	0	(83)	4,788	4,788	6,086	(0)	(1,298)	5,621	7,676	(2,055)
3001.02.02 - Environmental Integration	362	362	418	0	(56)	47,021	47,021	42,674	0	4,347	57,225	55,955	1,271
3001.02.03 - Public Safety & Resource Protection	938	938	608	0	329	53,570	53,570	47,141	0	6,428	78,150	71,122	7,028
3001.02.04 - Radiological Site Services	1	1	1	(0)	(0)	3,830	3,830	4,770	0	(940)	3,837	5,307	(1,470)
3001.02.05 - WSCF Analytical Services	81	81	0	0	81	54,931	54,931	50,457	(0)	4,474	57,139	51,972	5,167
3001.03.01 - IIM Project Planning & Controls	203	203	147	0	57	31,961	31,961	28,261	0	3,700	37,636	33,834	3,802
3001.03.02 - Information Systems	1,173	1,173	1,016	0	158	95,668	95,668	91,896	(0)	3,772	127,696	121,440	6,256
3001.03.03 - Infrastructure / Cyber Security	265	265	257	0	8	26,797	26,797	29,759	(0)	(2,961)	33,514	37,683	(4,169)
3001.03.04 - Content & Records Management	625	625	407	0	218	57,473	57,473	52,067	0	5,407	75,181	69,221	5,960
3001.03.05 - IR/CM Management	95	95	65	0	30	3,991	3,991	9,840	0	(5,849)	6,654	12,439	(5,785)
3001.03.06 - Information Support Services	162	162	146	0	16	13,218	13,218	10,200	0	3,018	17,756	14,428	3,327
3001.04.01 - Roads and Grounds Services	259	259	280	0	(21)	21,532	21,532	19,602	0	1,931	28,790	27,804	986
3001.04.02 - Biological Services	299	299	273	0	26	25,825	25,825	26,815	0	(990)	34,198	36,001	(1,803)
3001.04.03 - Electrical Services	547	547	1,156	0	(609)	52,912	52,912	76,390	0	(23,477)	68,125	100,861	(32,736)
3001.04.04 - Water/Sewer Services	632	632	1,468	0	(836)	48,105	48,105	80,852	(0)	(32,747)	65,425	108,364	(42,939)
3001.04.05 - Facility Services	0	0	0	(0)	0	7,909	7,909	7,900	0	9	7,909	7,900	9
3001.04.06 - Transportation	0	0	26	(0)	(26)	7,974	7,974	9,795	(0)	(1,821)	7,974	10,069	(2,095)



Table 4-1, cont. Format 1, DD Form 2734/1, Work Breakdown Structure

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE										DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0188	
1. Contractor		2. Contract				3. Program				4. Report Period			
a. Name		a. Name				a. Name				a. From (2016/11/21)			
Mission Support Alliance		Mission Support Contract				Mission Support Contract							
b. Location (Address and Zip Code)		b. Number		b. Phase		b. To (2016/12/25)							
Richland, WA 99352		RL14728		Operations									
c. TYPE		d. Share Ratio		c. EVMS ACCEPTANCE									
CPAF				No X Yes									
Item (1)	Current Period					Cumulative to Date					At Completion		
	Budgeted Cost		Actual Cost Work Performed (4)	Variance		Budgeted Cost		Actual Cost Work Performed (9)	Variance		Budgeted (12)	Estimated (13)	Variance (14)
	Work Scheduled (2)	Work Performed (3)		Schedule (5)	Cost (6)	Work Scheduled (7)	Work Performed (8)		Schedule (10)	Cost (11)			
a. WORK BREAKDOWN STRUCTURE ELEMENT (Cont'd)													
3001.04.07 - Fleet Services	53	53	(4)	0	56	7,249	7,249	7,319	0	(70)	8,729	8,344	385
3001.04.08 - Crane and Rigging	0	0	0	0	0	2,187	2,187	2,187	(0)	(0)	2,187	2,187	(0)
3001.04.09 - Railroad Services	0	0	1	0	(1)	370	370	385	(0)	(16)	370	456	(87)
3001.04.10 - Technical Services	272	272	303	0	(31)	32,732	32,732	34,811	0	(2,078)	40,338	44,287	(3,949)
3001.04.11 - Energy Management	266	266	140	0	126	14,138	14,138	7,666	(0)	6,472	21,836	14,436	7,399
3001.04.12 - Hanford Historic Buildings Preservation	70	114	215	44	(100)	19,090	18,950	18,832	(140)	118	22,146	22,979	(833)
3001.04.13 - Work Management	91	91	157	0	(65)	9,179	9,179	12,683	(0)	(3,504)	11,732	15,893	(4,161)
3001.04.14 - Land and Facilities Management	553	553	438	(0)	115	36,718	36,718	31,686	(0)	5,031	51,169	46,519	4,649
3001.04.15 - Mail & Courier	110	110	58	0	52	7,761	7,761	5,414	(0)	2,348	10,829	8,055	2,774
3001.04.16 - Property Systems/Acquisitons	502	502	575	0	(73)	40,933	40,933	41,801	0	(868)	54,987	56,470	(1,483)
3001.04.17 - General Supplies Inventory	12	12	(110)	0	122	2,216	2,216	1,120	0	1,096	2,548	1,458	1,090
3001.04.18 - Maintenance Management Program Implem	179	179	150	0	29	7,335	7,335	7,636	0	(300)	12,364	13,033	(669)
3001.06.01 - Business Operations	313	313	445	(0)	(131)	36,407	36,407	3,693	0	32,713	45,160	14,416	30,744
3001.06.02 - Human Resources	223	223	195	(0)	28	17,751	17,751	17,207	(0)	544	23,998	23,723	276
3001.06.03 - Safety, Health & Quality	1,082	1,082	1,459	0	(377)	110,929	110,929	130,025	(0)	(19,096)	141,237	165,619	(24,382)
3001.06.04 - Miscellaneous Support	660	660	425	0	236	50,546	50,546	38,121	(0)	12,424	69,059	56,423	12,636
3001.06.05 - Presidents Office (G&A nonPMB)	0	0	0	0	0	16	16	16	0	0	16	16	0
3001.06.06 - Strategy	0	0	0	0	0	959	959	2,529	0	(1,570)	959	2,529	(1,570)
3001.07.01 - Portfolio Management	506	506	323	0	183	53,756	53,756	48,387	(0)	5,369	68,558	62,417	6,140
3001.08.01 - Water System	308	388	220	80	168	21,426	21,236	10,884	(190)	10,352	25,994	15,873	10,121
3001.08.02 - Sewer System	162	181	117	19	63	6,509	6,525	9,717	16	(3,193)	16,601	19,972	(3,370)
3001.08.03 - Electrical System	102	57	45	(45)	12	15,334	15,259	16,274	(75)	(1,015)	16,664	17,752	(1,088)
3001.08.04 - Roads and Grounds	0	48	8	48	40	3,982	3,982	3,283	(0)	699	9,803	9,104	699
3001.08.05 - Facility System	0	0	0	0	0	5,611	5,611	5,652	(0)	(41)	5,611	5,652	(41)
3001.08.06 - Reliability Projects Studies & Estimates	341	341	256	0	85	4,843	4,843	6,724	(0)	(1,881)	12,984	15,383	(2,399)
3001.08.07 - Reliability Project Spare Parts Inventory	0	0	48	0	(48)	86	86	2,467	0	(2,381)	86	2,691	(2,605)
3001.08.08 - Network & Telecommunications System	502	459	114	(43)	345	11,154	10,975	15,122	(180)	(4,147)	11,203	15,359	(4,156)
3001.08.09 - Capital Equipment Not Related to Construct	0	0	0	0	0	9,034	9,034	8,844	(0)	190	9,034	8,844	190
3001.08.10 - WSCF - Projects	0	0	0	0	0	979	979	810	0	169	979	810	169
3001.08.11 - Support of Infrastructure Interface to ORP	0	0	0	0	0	965	965	725	0	240	965	725	240
3001.08.12 - Reliability Projects Out Year Planning	0	0	0	0	0	0	0	0	0	0	81,332	81,332	(0)
3001.90.04 - MSA Transition	0	0	0	0	0	5,868	5,868	5,868	0	0	5,868	5,868	0
3001.B1.06 - Projects	0	0	0	0	0	(0)	(0)	0	(0)	(0)	(0)	0	(0)
b. COST OF MONEY													
c. GENERAL AND ADMINISTRATIVE													
d. UNDISTRIBUTED BUDGET													0
e. SUBTOTAL (Performance Measurement Baseline)	18,958	19,060	20,417	102	(1,356)	1,748,660	1,748,091	1,784,300	(569)	(36,209)	2,346,513	2,442,805	(96,292)



Table 4-1, cont. Format 1, DD Form 2734/1, Work Breakdown Structure

CONTRACT PERFORMANCE REPORT FORMAT 1 - WORK BREAKDOWN STRUCTURE										DOLLARS IN Thousands			FORM APPROVED OMB No. 0704-0188	
1. Contractor		2. Contract				3. Program				4. Report Period				
a. Name Mission Support Alliance		a. Name Mission Support Contract				a. Name Mission Support Contract				a. From (2016/11/21)				
b. Location (Address and Zip Code) Richland, WA 99352		b. Number RL14728		b. Phase Operations		b. To (2016/12/25)								
c. TYPE CPAF		d. Share Ratio		c. EVMS ACCEPTANCE No X Yes										
Item (1)	Current Period					Cumulative to Date					At Completion			
	Budgeted Cost		Actual Cost	Variance		Budgeted Cost		Actual Cost	Variance		Budgeted (12)	Estimated (13)	Variance (14)	
	Work Scheduled (2)	Work Performed (3)	Work Performed (4)	Schedule (5)	Cost (6)	Work Scheduled (7)	Work Performed (8)	Work Performed (9)	Schedule (10)	Cost (11)				
a2. WORK BREAKDOWN STRUCTURE ELEMENT														
3001.01.04 - HAMMER	815	815	1,202	0	(387)	101,128	101,128	102,180	0	(1,053)	121,238	126,904	(5,666)	
3001.02.04 - Radiological Site Services	1,115	1,115	561	(0)	554	57,042	57,042	40,463	(0)	16,579	87,635	67,606	20,029	
3001.02.05 - WSCF Analytical Services	1,051	1,051	0	(0)	1,051	84,180	84,180	53,176	0	31,004	113,653	73,593	40,060	
3001.03.02 - Information Systems	209	209	131	0	78	2,271	2,271	2,068	0	203	8,034	7,861	173	
3001.03.04 - Content & Records Management	84	84	61	0	22	729	729	674	0	55	2,670	2,607	63	
3001.03.06 - Information Support Services	0	0	0	0	0	4,726	4,726	4,043	(0)	683	4,726	4,043	683	
3001.03.07 - Information Technology Services	2,558	2,558	1,991	(0)	567	16,981	16,981	16,790	(0)	190	87,530	88,927	(1,397)	
3001.04.05 - Facility Services	561	561	830	0	(269)	47,840	47,840	53,777	0	(5,937)	64,312	73,419	(9,108)	
3001.04.06 - Transportation	162	162	498	0	(336)	20,088	20,088	34,568	0	(14,480)	24,570	42,450	(17,879)	
3001.04.07 - Fleet Services	690	690	1,208	0	(519)	84,157	84,157	101,241	0	(17,084)	102,971	125,084	(22,113)	
3001.04.08 - Crane and Rigging	841	841	1,043	(0)	(202)	82,538	82,538	88,439	0	(5,901)	106,027	114,808	(8,781)	
3001.04.10 - Technical Services	5	5	170	0	(165)	14	14	1,452	0	(1,438)	149	3,733	(3,584)	
3001.04.13 - Work Management	0	0	58	0	(58)	595	595	2,841	0	(2,246)	595	3,348	(2,753)	
3001.04.14 - Land and Facilities Management	625	625	892	0	(267)	48,126	48,126	47,354	(0)	772	65,481	65,055	426	
3001.04.15 - Mail & Courier	18	18	15	0	3	1,078	1,078	1,117	0	(39)	1,590	1,649	(59)	
3001.06.01 - Business Operations	797	797	775	(0)	22	79,430	79,430	83,813	(0)	(4,383)	101,571	107,902	(6,331)	
3001.06.02 - Human Resources	151	151	274	(0)	(123)	16,035	16,035	21,259	(0)	(5,224)	20,209	27,053	(6,844)	
3001.06.03 - Safety, Health & Quality	166	166	114	(0)	52	12,510	12,510	9,995	(0)	2,516	17,156	14,883	2,274	
3001.06.04 - Miscellaneous Support	76	76	120	0	(44)	9,177	9,177	11,314	(0)	(2,137)	11,298	14,287	(2,988)	
3001.06.05 - Presidents Office (G&A nonPMB)	313	313	216	(0)	97	23,295	23,295	19,018	(0)	4,277	32,001	27,524	4,477	
3001.06.06 - Strategy	23	23	18	0	5	2,811	2,811	2,439	(0)	372	3,456	3,053	403	
3001.A1.01 - Transfer - CHPRC	6,042	6,042	5,177	0	865	584,886	584,886	514,830	0	70,056	750,618	681,931	68,688	
3001.A1.02 - Transfer - WRPS	1,225	1,225	3,749	0	(2,525)	119,087	119,087	185,642	0	(66,555)	152,357	248,400	(96,043)	
3001.A1.03 - Transfers - FH Closeout	0	0	5	0	(5)	175	175	212	0	(37)	184	258	(75)	
3001.A1.04 - Transfers - CHG Closeout	0	0	0	0	0	12	12	13	0	(0)	12	13	(0)	
3001.A2.01 - Non Transfer - BNI	0	0	6	0	(6)	1,188	1,188	2,834	0	(1,646)	1,188	2,990	(1,802)	
3001.A2.02 - Non Transfer - AMH	13	13	0	0	13	1,573	1,573	954	(0)	619	1,919	1,191	728	
3001.A2.03 - Non Transfer - ATL	17	17	0	0	17	1,085	1,085	702	0	382	1,541	1,013	528	
3001.A2.04 - Non-Transfer - WCH	324	324	3	0	321	39,955	39,955	41,557	0	(1,602)	48,597	47,370	1,226	
3001.A2.05 - Non-Transfers - HPM	0	0	58	0	(58)	3	3	1,697	0	(1,694)	3	2,188	(2,185)	
3001.A2.06 - Non-Transfers - BNI Corp	0	0	0	0	0	0	0	1	0	(1)	0	1	(1)	
3001.A2.07 - Non-Transfers-WAI	0	0	21	0	(21)	0	0	344	0	(344)	0	616	(616)	
3001.A4.01 - Request for Services	355	355	734	0	(379)	68,577	68,577	95,247	0	(26,669)	78,442	106,741	(28,300)	
3001.A4.02 - HAMMER RFSS	3	3	496	0	(493)	7,064	7,064	27,439	0	(20,374)	7,149	31,508	(24,359)	
3001.A4.03 - National Guard RFSS	0	0	0	0	0	1,601	1,601	1,550	0	52	1,605	1,552	53	
3001.A4.04 - PNNL RFSS	18	18	48	0	(30)	6,848	6,848	9,997	(0)	(3,148)	7,319	10,702	(3,383)	
3001.A5.01 - RL PD	57	57	134	0	(77)	2,981	2,981	5,046	0	(2,065)	4,567	6,429	(1,862)	
3001.A5.02 - ORP PD	0	0	53	0	(53)	37	37	6,613	0	(6,576)	37	7,138	(7,101)	



Table 4-1, cont. Format 1, DD Form 2734/1, Work Breakdown Structure

CONTRACT PERFORMANCE REPORT											DOLLARS IN Thousands		FORM APPROVED OMB No. 0704-0188		
FORMAT 1 - WORK BREAKDOWN STRUCTURE															
1. Contractor		2. Contract		3. Program			4. Report Period								
a. Name		a. Name		a. Name			a. From (2016/11/21)								
b. Location (Address and Zip Code)		b. Number		b. Phase			b. To (2016/12/25)								
c. TYPE		d. Share Ratio		c. EVMS ACCEPTANCE											
Item (1)	Current Period						Cumulative to Date				At Completion				
	Budgeted Cost		Actual Cost		Variance		Budgeted Cost		Actual Cost		Variance		Budgeted (12)	Estimated (13)	Variance (14)
	Work Scheduled (2)	Work Performed (3)	Work Performed (4)	Schedule (5)	Cost (6)	Work Scheduled (7)	Work Performed (8)	Work Performed (9)	Schedule (10)	Cost (11)					
3001.A5.03 - RL Project Funded	51	51	247	0	(196)	703	703	3,249	0	(2,545)	2,081	6,781	(4,699)		
3001.A5.04 - ORP Project Funded	0	0	128	0	(128)	0	0	1,825	0	(1,825)	0	3,197	(3,197)		
3001.A6.01 - Portfolio PMTOs	0	0	0	0	0	210	210	161	0	49	210	161	49		
3001.A7.01 - G&A Liquidations	(1,543)	(1,543)	(1,983)	0	440	(144,233)	(144,233)	(150,718)	0	6,485	(187,291)	(199,512)	12,221		
3001.A7.02 - DLA Liquidations	(942)	(942)	(1,576)	0	634	(70,940)	(70,940)	(90,464)	(0)	19,525	(99,595)	(126,082)	26,487		
3001.A7.03 - Variable Pools Revenue	(7,704)	(7,704)	(6,749)	0	(955)	(480,009)	(480,009)	(456,482)	0	(23,527)	(691,095)	(670,774)	(20,321)		
3001.B1.01 - UBS Assessments for Other Providers	2	2	0	0	2	115	115	0	0	115	184	0	184		
3001.B1.02 - UBS Other MSC - HAMMER M&O	11	11	0	0	11	527	527	0	(0)	527	843	0	843		
3001.B1.03 - Assessment for Other Provided Services	117	117	0	0	117	5,374	5,374	0	(0)	5,374	8,612	0	8,612		
3001.B1.04 - Assessment for PRC Services to MSC	64	64	0	0	64	3,185	3,185	0	(0)	3,185	4,977	0	4,977		
3001.B1.07 - Request for Services	1	1	0	0	1	246	246	0	(0)	246	274	0	274		
a2. WORK BREAKDOWN STRUCTURE ELEMENT															
b2. COST OF MONEY															
c2. GENERAL AND ADMINISTRATIVE															
d2. UNDISTRIBUTED BUDGET													0		
e2. SUBTOTAL (Non - Performance Measurement)	8,370	8,370	10,728	0	(2,358)	845,002	845,002	900,270	0	(55,268)	1,071,609	1,159,601	(87,991)		
f. MANAGEMENT RESERVE											3,747	3,747	0		
g. TOTAL	27,328	27,431	31,145	102	(3,714)	2,593,662	2,593,093	2,684,570	(569)	(91,476)	3,421,870	3,606,153	(184,284)		
9. RECONCILIATION TO CONTRACT BUDGET BASE															
a. VARIANCE ADJUSTMENT															
b. TOTAL CONTRACT VARIANCE															



5.0 FORMAT 3, DD FORM 2734/3, BASELINE

Table 5-1. Format 3, DD Form 2734/3, Baseline

CONTRACT PERFORMANCE REPORT FORMAT 3 - BASELINE															FORM APPROVED OMB No. 0704-0188	
1. Contractor		2. Contract		3. Program			4. Report Period					DOLLARS IN Thousands				
a. Name Mission Support Alliance		a. Name Mission Support Contract		a. Name Mission Support Contract			a. From (2016/11/21)									
b. Location (Address and Zip Code) Richland, WA 99352		b. Number RL14728		b. Phase Operations			b. To (2016/12/25)									
c. TYPE CPAF		d. Share Ratio		c. EVMS ACCEPTANCE No X Yes												
5. CONTRACT DATA																
a. ORIGINAL NEGOTIATED COST \$2,854,966		b. NEGOTIATED CONTRACT CHANGES \$566,903		c. CURRENT NEGOTIATED COST (a+b) \$3,421,869		d. ESTIMATED COST OF UNAUTHORIZED UNPRICED WORK \$0		e. CONTRACT BUDGET BASE (C+D) \$3,421,869		f. TOTAL ALLOCATED BUDGET \$3,421,869		g. DIFFERENCE (E - F) \$0				
h. CONTRACT START DATE 2009/05/24		i. CONTRACT DEFINITIZATION DATE 2009/05/24		j. PLANNED COMPLETION DATE 2019/05/25			k. CONTRACT COMPLETION DATE 2019/05/25		l. ESTIMATED COMPLETION DATE 2019/05/25							
6. PERFORMANCE DATA																
ITEM (1)	BCWS CUMULATIVE TO DATE (2)	BCWS FOR REPORT PERIOD (3)	BUDGETED COST FOR WORK SCHEDULED (BCWS) (Non-Cumulative)												UNDISTRIBUTED BUDGET (15)	TOTAL BUDGET (16)
			Six Month Forecast By Month													
			Jan FY 17 (4)	Feb FY17 (5)	Mar FY17 (6)	Apr FY17 (7)	May FY17 (8)	Jun FY17 (9)	Jul FY17 (10)	Aug FY17 (11)	Remaining FY17 (12)	FY18 (13)	FY19 (14)			
a. PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)	1,729,703	18,952	12,767	16,977	20,305	16,345	16,433	19,384	14,855	15,776	23,469	308,132	137,095	0	2,350,193	
b. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD	18,958	(18,952)	44	149	412	553	594	3,135	2,294	1,839	938	(13,855)	212	0	(3,680)	
a. PERFORMANCE MEASUREMENT BASELINE (End of Period)	1,748,660		12,810	17,125	20,717	16,898	17,027	22,519	17,149	17,615	24,407	294,278	137,307	0	2,346,512	



Table 5-1, cont. Format 3, DD Form 2734/3, Baseline

DOLLARS IN Thousands															FORM APPROVED OMB No. 0704-0188	
1. Contractor			2. Contract			3. Program			4. Report Period							
a. Name Mission Support Alliance			a. Name Mission Support Contract			a. Name Mission Support Contract			a. From (2016/11/21)							
b. Location (Address and Zip Code) Richland, WA 99352			b. Number RL14728			b. Phase Operations			b. To (2016/12/25)							
c. TYPE CPAF			d. Share Ratio			c. EVMS ACCEPTANCE No X Yes										
6. PERFORMANCE DATA																
ITEM	BCWS CUMULATIVE TO DATE (2)	BCWS FOR REPORT PERIOD (3)	BUDGETED COST FOR WORK SCHEDULED (BCWS) (Non-Cumulative)												UNDISTRIBUTED BUDGET (15)	TOTAL BUDGET (16)
			Six Month Forecast By Month													
			Jan FY 17 (4)	Feb FY17 (5)	Mar FY17 (6)	Apr FY17 (7)	May FY17 (8)	Jun FY17 (9)	Jul FY17 (10)	Aug FY17 (11)	Remaining FY17 (12)	FY18 (13)	FY19 (14)			
a2. NON - PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)	836,632	8,370	5,517	7,770	9,103	7,479	7,534	8,998	6,751	7,259	10,757	92,834	62,608	0	1,071,610	
b2. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD	8,370	(8,370)	0	0	0	0	0	0	0	0	0	(0)	(0)	0	(0)	
a2. NON - PERFORMANCE MEASUREMENT BASELINE (End of Period)	845,002		5,517	7,770	9,103	7,479	7,534	8,998	6,751	7,259	10,757	92,834	62,608	0	1,071,609	
7. MANAGEMENT RESERVE															3,747	
8. TOTAL	2,593,662	0	18,327	24,895	29,819	24,377	24,561	31,517	23,900	24,874	35,164	387,112	199,914	0	3,421,869	



6.0 FORMAT 5, DD FORM 2734/5, EXPLANATIONS AND PROBLEM ANALYSIS

Table 6-1, Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract	a. Name Mission Support Contract	a. From (2016/11/21)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728	b. Phase - Operations	b. To (2016/12/25)
	c. Type CPAF	d. Share Ratio	
		c. EVMS Acceptance NO X YES	
5. Evaluation			
<p><u>Explanation of Variance /Description of Problem:</u></p> <p>Current Month Cost Variance (CV):</p> <p>3001.01.01 Safeguards and Security – Unfavorable CM CV is due to implementation of the Graded Security Protection Policy that significantly increased manpower requirements and the bid assumption that the Spent Nuclear Material (SNM) would be shipped off the Hanford site by year 3. This policy was subsequent to the MSA baseline proposal and implementation.</p> <p>3001.01.02 Fire and Emergency Response – Unfavorable CM CV is primarily due to the approved Integrated Investment Portfolio (IIP) funded scope being divergent from the contract baseline because of a budgeting omission for platoon shift hours in the Hanford Fire Department as well as the bid assumption that multiple fire stations would have been closed.</p> <p>3001.01.04 HAMMER – Unfavorable CM CV is due to the assumption that less Environmental Management (EM) funding would be required because HAMMER could self-fund itself by performing enough services for non-Hanford entities. This assumption that was included in the proposal has not occurred. As a result, the EM budget will remain lower than the EM funds authorized. This divergent situation has remained and continued to increase the FY 2017 CV. Services delivered at HAMMER have not been adversely affected because the services are executed consistent with the approved IIP scope.</p> <p>3001.02.03 Public Safety & Resource Protection – Favorable CM CV is attributed to baseline differences. ES&H is working to RL-directed guidance that provides for a lower spending target than the baseline.</p> <p>3001.04.03 Electrical Services – Unfavorable CM CV is due to staffing levels that are currently higher than the baseline due to additional maintenance activities required to maintain the electrical distribution system. The system has degraded across the site due to age. Electrical Services is part of the Enhanced Maintenance Program, and has compliance issues that have increased the cost to the program.</p> <p>3001.04.04 Water/Sewer Services – Unfavorable CM CV is due to staffing levels that are currently higher than the baseline due to additional maintenance activities required to maintain the water and sewer distribution system. The system has degraded across the site due to age. Water & Sewer Utilities (W&SU) is part of the Enhanced Maintenance Program, and has compliance issues that have increased the cost to the program.</p>			



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract		3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract		a. Name Mission Support Contract	a. From (2016/11/21)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2016/12/25)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

3001.06.03 Safety, Health & Quality – Unfavorable CM CV is primarily due to the IIP scope and approved funding increases in Radiation Protection and Worker Safety & Health. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigations are planned at this time.

3001.08.08 Network & Telecommunications System – Favorable CM CV is primarily due to loaning project craft resources to other projects thereby significantly reducing labor costs during mobilization.

3001.A1 – 3001.B1 Non-PMB – Unfavorable CM CV is primarily due to RL approved funding and priority scope being divergent from the baseline for Request for Service (RFS) and Inter-Contractor Work Order (ICWO) activities.

Impacts – Current Month Cost Variance:

MSA has operated at authorized FY 2017 funding levels that exceed the contract budget. There are no impacts associated with this CM negative CV.

Corrective Action – Current Month Cost Variance: None

Current Month Schedule Variance:

3001.08.01 Water System – Favorable CM SV is due to the construction subcontractor performing the pipeline testing and punch list items ahead of schedule.

Impacts – Current Month Schedule Variance: Impacts are minimal because each Reliability Project is an independent stand-alone project.

Corrective Action – Current Month Schedule Variance: None.

Cumulative Cost Variance: Several key areas contributing to the Cumulative-to-Date CV (CTD CV) are as follows:

Fiscal Year Funding Authorizations: During October of 2011, MSA completed re-aligning the baseline to the negotiated contract, and by using the approved change control process, implemented the re-aligned baseline data for the start of 2012. RL provided approval of the baseline data for reporting progress, and also provided an approved and funded priority list of items for MSA work scope. The CTD CV is primarily due to RL approved funding and priority list scope being divergent from the baseline for FY 2013, FY 2014, FY 2015, FY 2016 and FY 2017.



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract		3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract		a. Name Mission Support Contract	a. From (2016/11/21)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2016/12/25)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

Labor and Pension costs: After the original submittal of the Forward Pricing Rates (FPR), it was determined that MSA had incorrectly factored the cost of the Hanford Site Pension Plan (HSPP) and the Hanford Employee Welfare Trust (HEWT) into the labor rates. This was disclosed to MSA in the Source Selection Evaluations Board's (SEB) Debrief of the Mission Support Contract (MSC) in May 2009. MSA received contract modifications associated with pension cost and labor adder adjustments for FY 2009 through FY 2015, which increased the contract value. At the request of RL, the labor and pension proposals are submitted annually at fiscal year-end. MSA has submitted the proposal for the FY 2016 Labor and Pension adders and currently waiting definitization. The variances associated with labor and pension impact all WBS elements that include labor.

3001.01.01 Safeguards and Security: Unfavorable CTD CV is primarily due to differences in the baseline budgeting and fiscal year IIP authorizations. For example, Safeguards and Security included a baseline planning assumption that a Graded Security Policy could be implemented at a reduced cost and the bid assumption that Spent Nuclear Material (SNM) would be shipped off the Hanford site by year 3. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigating actions are in place at this time to reduce the overall cost variance.

3001.01.02 Fire & Emergency Response: Unfavorable CTD CV is primarily due to a budgeting omission for platoon shift hours in the Hanford Fire Department as well as the bid assumption that multiple fire stations would have been closed. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigating actions are in place at this time to reduce the overall CV.

3001.01.03 Emergency Management: Favorable CTD CV is because work being performed according to RL-directed Contract Baseline Alignment Guidance (CBAG) provides for MSA/RL agreed scope, and a spending target that is different than the Contract Baseline Budget. No mitigating actions are required at this time.

3001.01.04 HAMMER: Unfavorable CTD CV is predominantly due to the assumption that less EM funding would be required because HAMMER could self-fund itself by performing enough services for non-Hanford entities. This assumption has not occurred. As a result of this inaccurate assumption, the EM budget will remain lower than the EM funds authorized. Because of this divergent situation, the CTD CV will continue to increase. Services delivered at HAMMER will not be adversely affected because the services are executed consistent with the approved fiscal year IIP/funding. No other potential contributing performance issues were identified.



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis.

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract	a. Name Mission Support Contract	a. From (2016/11/21)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728 c. Type CPAF	b. Phase - Operations c. EVMS Acceptance NO X YES	b. To (2016/12/25)
5. Evaluation			

3001.02.03 Public Safety & Resource Protection (PSRP): Favorable CTD CV is primarily due to the approved funding and IIP scope being divergent from the baseline for PSRP. No mitigating actions are required at this time.

3001.03.04 Contents & Records Management: Favorable CTD CV is primarily due to the approved funding and IIP scope being divergent from the baseline, but is also due to the cost savings associated with self-performance of the records scope, and a reduction in system administration/software engineering costs from the self-performance of software engineering services.

3001.03.05 IR/CM Management: Unfavorable CTD CV is primarily due to the approved funding and IIP scope being divergent from the baseline, but is also due to the unplanned Information Technology (IT) subcontract transition effort and related software costs.

3001.04.03/04 Electrical/Water & Sewer Services: Unfavorable CTD CV is primarily due to the aging life of the infrastructure on the Hanford Site. More staffing and material procurements than included in the baseline have been authorized through the fiscal year IIP/funding process. These changes have resulted in increased costs for infrastructure repairs, compliance issues, and maintenance activities. In addition, an enhanced maintenance program has been established to better predict future system failures, and predictive maintenance is replacing the preventative maintenance method. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigations are planned at this time.

3001.04.11 Energy Management: Favorable CTD CV is primarily due to the approved funding and IIP scope being divergent from the baseline for Energy Management. No mitigating actions are required at this time.

3001.04.14 Land and Facilities Management – Favorable CTD CV is primarily due to the approved funding and IIP scope being divergent from the baseline. No mitigating actions are required at this time.

3001.06.01 Business Operations: Favorable CTD CV is primarily due to credits associated with affiliate fee on IT scope and training on overtime pending final resolution.

3001.06.03 Safety, Health & Quality: Unfavorable CTD CV is primarily due to the IIP scope and approved funding increases in Radiation Protection, Worker Safety & Health, and Beryllium accounts. Since fiscal year IIP/funding authorizations adjust for these differences, no mitigations are planned at this time.

3001.06.04 Miscellaneous Support: Favorable CTD CV is primarily due to MSA Engineering approved funding and IIP being divergent from the contract baseline. Through the annual IIP process, the MSA Engineering organization was authorized/funded to perform much less work than planned in the baseline.



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract	a. Name Mission Support Contract	a. From (2016/11/21)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728 c. Type CPAF	b. Phase - Operations c. EVMS Acceptance NO X YES	b. To (2016/12/25)
5. Evaluation			

3001.07.01 Portfolio Management: Favorable CTD CV is primarily due to less Portfolio Management support required than assumed for integrated planning actions.

3001.08.01 Water System: Favorable CTD CV is due to projects L-525, "24in Line Replacement from 2901Y to 200E" & L-840, "24in Line Replacement from 2901Y to 200W" awarding the construction subcontracts for significantly less than initially estimated. The significant construction cost savings is attributable to the contractor's expertise in this type of construction and significantly less difficult site conditions encountered than were assumed when preparing the initial cost estimate. In addition previously reported projects L-399 "T-Plant Potable & Raw Water Line Rest" and L-311 "200W Raw Water Reservoir Refurbish" contributed to this positive variance.

3001.A1 – 3001.B1 Non-PMB: Unfavorable CTD CV is primarily due to other Hanford contractors and government agencies requesting more usage-based services (i.e., Training, Crane & Rigging, Fleet Services, Occupancy, etc.) than planned in the baseline. Since this work scope is providing services as requested, and is fully authorized through the Inter-Contract Work Orders/Request for Services process, no mitigations are planned at this time. Note that for the Non-PMB, the WBS elements 3001.01.04 - 3001.06.06 represent the Usage-Based Pool, General and Administrative (G&A), and Direct Labor Adder (DLA) accounts which are offset by the liquidation of services to customers as identified with WBS 3001.A7.01 – 3001.A7.03.

Impacts - Cumulative Cost Variance: CTD CV is primarily due to approved funding and priority list scope being divergent from the baseline during FY 2013 – FY 2017. Because the work scope is primarily level of effort, the CTD CV is not a predictive indicator for future performance. The amount of support provided in the future will be dependent upon the RL approved funding and priority list scope.

Corrective Action - Cumulative Cost Variance:

For FY 2009 – FY 2012, MSA has incorporated negotiated contract variance proposals into the contract baseline. For FY 2013 through FY 2017, MSA will continue to monitor the delta values between the contract baseline and RL funding values to determine if change proposals are warranted. Until then, the divergent data will continue.

Cumulative Schedule Variance:

3001.04.12 Hanford Historic Buildings – Unfavorable CTD SV is primarily due to the release of the sub-tier masonry contractor because it could not meet requirements of the Historic Treatment Plan. Additional SV is due to the bid, submittal and training process for the replacement masonry contractor. Construction was further delayed because of project specific construction material requirements (grout & sand) set by the Historic A/E.



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract	3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract	a. Name Mission Support Contract	a. From (2016/11/21)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728 c. Type CPAF	b. Phase - Operations c. EVMS Acceptance NO X YES	b. To (2016/12/25)
5. Evaluation			

3001.08.01 Water System – Unfavorable CTD SV is due to engineering design completing behind schedule which impacted successor activities that led to delays in material delivery of valves/actuators and control panels, and delays to work performance due to Filter Plant issues on project “L-830, Filter Plant Filter Control System Upgrade”.

3001.08.03 Electrical System – Unfavorable CTD SV is due to the late review of the draft Environmental Assessment (EA) and submittal of the Areas of Potential Effects (APE). Also, the cultural resources field reviews have been delayed by weather conditions on project “L-612, 230kV Trans Sys Recon and Sustain Repairs”.

3001.08.08 Network & Telecommunications System – Unfavorable CTD SV is due to the construction mobilization being behind schedule, and a delay in lease and set-up of office space for project “L-761 Phase 2a Procure, Install & Closeout”.

Impacts - Cumulative Schedule Variance: Hanford Historic Buildings Preservation – This project will finish behind schedule, but impacts to Reliability Projects are minimal because each is an independent stand-alone project.

Corrective Action - Cumulative Schedule Variance: Hanford Historic Buildings Preservation – no corrective action.

Variance at Complete:

During October of 2011, MSA completed re-aligning the baseline to the negotiated contract, and using the approved change control process, implemented the re-aligned baseline data for the start of FY 2012. RL provided approval of the baseline data for reporting progress and also provided an approved and funded priority list of items for MSA work scope. The CTD variance is primarily due to the RL approved funding and priority list scope being divergent from the baseline for FY 2013, FY 2014, FY 2015, FY 2016 and FY 2017.

After the original submittal of the FPR, it was determined that MSA had incorrectly factored the cost of the Hanford Site Pension Plan (HSPP) and the Hanford Employee Welfare Trust (HEWT) into the labor rates. This was disclosed to MSA in the Source Selection Evaluations Board’s (SEB) Debrief of the Mission Support Contract (MSC) in May 2009. MSA received contract modifications associated with pension cost and labor adder adjustments for FY 2009 through FY 2015 which increased the contract value. At the request of RL, the labor and pension proposals are submitted annually at fiscal year-end. The FY 2016 Labor and Pension proposal is pending definitization. For FY 2017, the labor and pension variances will continue to increase during the remainder of this fiscal year.

Impacts – At Complete Variance:

CTD CV is primarily due to the approved funding and priority list scope being divergent from the baseline during FY 2013 – FY 2017. Because the work scope is primarily level of effort, the CTD CV is not a predictive indicator for future performance. The amount of support provided in the future will be dependent upon RL approved funding and priority list scope.



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract		3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract		a. Name Mission Support Contract	a. From (2016/11/21)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2016/12/25)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

Corrective Action - At Complete Variance:

For FY 2009 – FY 2012, MSA has incorporated negotiated contract variance proposals into the contract baseline. For FY 2013 through FY 2017, MSA will continue to monitor the delta values between the contract baseline and RL funding values to determine if change proposals are warranted. Until then, the divergent data will continue.

Negotiated Contract Changes:

The Negotiated Contract Cost for December 2016 remained at \$3,421.9M.

Changes in Estimated Cost of Authorized / Unpriced Work:

The Authorized Unpriced Work (AUW) for December 2016 remained at \$0M.

Changes in Estimated Price:

The Estimated Price of \$3,816.2M is based on the Most Likely Management Estimate at Completion (MEAC) of \$3,606.1M and fee of \$210.1M. The Most Likely MEAC reflects recognition of significant additional work scope in FY 2009 through FY 2012 related to American Recovery and Reinvestment Act of 2009 (ARRA) support activities to site contractors, and other DOE-authorized activities beyond the original contract assumptions. BCRs were implemented for the Cost Variance Contract Modifications received for FY 2009 thru FY 2012 in January 2015. Since FY 2013, FY 2014, FY 2015, and FY 2016 were within a 10 percent variance, proposals have not yet been processed to increase the Negotiated Contract Cost. Since FY 2017 funding is higher than the Contract Budget Base, there is a significant increase for this fiscal year.

Differences between Current Month and Prior Month EAC's Format 1, Column (13) (e):

During December 2016, the Estimate at Completion (EAC) decreased by \$1M from \$3,607.2M to \$3,606.2; ((\$4.0M) in the Performance Measurement Baseline (PMB), (\$.6M) in the Non-PMB and \$3.6M in Management Reserve. Decreases in the PMB and increase in Management Reserve were primarily due to implementation of Reliability Project (RP) BCRs, which established a risk based MR. The RP BCRs impacting MR during December 2016 were as follows:



Table 6-1, cont. Format 5, DD Form 2734/5, Explanations and Problem Analysis

1. Contractor	2. Contract		3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract		a. Name Mission Support Contract	a. From (2016/11/21)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2016/12/25)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

- **VRL40RP-17-003** – Create Two Level 5 WBSs for Project L-859, Rebuild 1st Street from Canton Avenue to IDF Entrance Road & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- **VRL40RP-17-004** - Create Two Level 5 WBSs for Project L-775, Chip Seal Route 4S Canton Avenue to Wye Barricade & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- **VRL40RP-17-005** - Create Two Level 5 WBSs for Project L-776, Chip Seal Route 4S Wye Barricade to 618 Waste Site Entrance & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- **VRL40RP-17-006** - Create Two Level 5 WBSs for Project L-419, 24" Line Replacement from 2901U to 200E & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- **VRL40RP-17-007** - Create Two Level 5 WBSs for Project L-777, Chip Seal Route 4S 618-10 Waste Site to Horn Rapids Road & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- **VRL40RP-17-009** - Create Two Level 5 WBSs for Project L-853, 200E Sewer Flow Equalization Facility & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- **VRL40RP-17-010** - Create Two Level 5 WBSs for Project L-854, 200E Sewer Consolidations & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- **VRL40RP-17-018** – Initiate F-868, Raw Water Fire Protection Loop for LAWPS Construction & Closeout and Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction.

In addition, the PMB EAC for Information Systems was revised to reflect realized savings from the self-performance of Software Engineering Services (SES). The Non-PMB EAC for Usage Based Services (UBS) it typically updated using a factor based on the trending FYTD actual costs incurred and the FYTD realized hours. The month of December had several site closures and delays so it was determined using the previous month forecast factor would provide a more accurate forecast. Decreases in the Non-PMB were primarily due to the removal of the 2430 Stevens Center lease from the forecast.



1. Contractor	2. Contract		3. Program	4. Report Period
a. Name Mission Support Alliance	a. Name Mission Support Contract		a. Name Mission Support Contract	a. From (2016/11/21)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2016/12/25)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

Changes in Undistributed Budget:

The Undistributed Budget of \$0M did not change this reporting period.

Changes in Management Reserve:

The Management Reserve for December 2016 increased by \$3.6M from \$0.083M to \$3.7M due primarily to the risk reserves identified in the Reliability Project BCRs implemented this period.

Differences in the Performance Measurement Baseline:

This reporting period the Performance Measurement Baseline decreased by (\$3.7M) from \$2,350.2M to \$2,346.5. The decrease was primarily due to the risk reserves identified in Reliability Project BCRs. This additional risk reserve required a budget adjustment from the PMB Reliability Project planning packages to Management Reserve. The overall contract value was not impacted as a result of the changes between the baseline and MR for Reliability Projects.

Differences in the Non - Performance Measurement Baseline:

The Non-PMB remained at \$1,071.6M for this reporting period.

Best/Worst/Most Likely Management Estimate at Completion (MEAC):

The Best Case MEAC assumes the completion of the approved work scope at the current negotiated contract value consistent with the Contract Budget Base. The Most Likely MEAC reflects the EAC including management reserve. The Worst Case Scenario assumes a 5 percent increase to the Most Likely MEAC case scenario.



7.0 USAGE-BASED SERVICES/DIRECT LABOR ADDER SUMMARY

The Direct Labor Adder (DLA) (motor carrier, facilities and janitorial) collects the cost of centralized management, support from other, craft indirect time, and non-labor cost like facilities maintenance. These costs are distributed via a rate on direct labor. Usage-Based Services (UBS) are services liquidated to customers (internal and external). The UBS cost is associated with a service and distributed on a unit rate to the customer based upon requests (“pay by the drink”).

Table 7-1. Usage-Based Services/Direct Labor Adder Summary (dollars in thousands).

Fiscal Year 2017 to Date – December 2016					
Account Description	BCWS	BCWP	ACWP	CV	Liquidation
Direct Labor Adder					
Software Engineer Services DLA (3001.03.02.03)	\$561.7	\$561.7	\$560.2	\$1.5	\$(502.4)
Content & Records Management DLA (3001.03.01.04)	\$202.5	\$202.5	\$182.1	\$20.4	\$(154.4)
Transportation DLA (3001.04.06.02)	\$416.7	\$416.7	\$1,255.2	\$(838.5)	\$(1,544.8)
Maintenance DLA (3001.04.05.02)	\$1,326.9	\$1,326.9	\$2,166.9	\$(840.0)	\$(2,111.0)
Janitorial Services DLA (3001.04.05.03)	\$234.5	\$234.5	\$301.5	\$(67.0)	\$(210.8)
Total Direct Labor Adder	\$2,742.3	\$2,742.3	\$4,465.9	\$(1,723.6)	\$(4,523.4)

ACWP = Actual Cost of Work Performed.
BCWP = Budgeted Cost of Work Performed.

CV = Cost Variance
BCWS = Budgeted Cost of Work Scheduled.

BAC = Budget at Completion.



Table 7-1, cont. Usage-Based Services/Direct Labor Adder Summary (dollars in thousands).

Fiscal Year 2017 to Date – December 2016					
Account Description	BCWS	BCWP	ACWP	CV	Liquidation
Usage Based Services					
Training (3001.01.04.02)	\$2,190.0	\$2,190.0	\$3,195.1	\$(1,005.1)	\$(2,777.6)
HRIP (3001.02.04.02)	\$1,487.0	\$1,487.0	\$712.9	\$774.1	\$(879.7)
Dosimetry (3001.02.04.03)	\$1,523.1	\$1,523.1	\$992.4	\$530.7	\$(990.7)
Information Technology Services (3001.03.07.01)	\$6,879.2	\$6,879.2	\$6,393.9	\$485.3	\$(7,498.9)
Work Management (3001.04.13.01)	\$-	\$-	\$165.3	\$(165.3)	\$(159.9)
Courier Services (3001.04.15.02)	\$49.1	\$49.1	\$44.9	\$4.2	\$(44.6)
Occupancy (3001.04.14.06)	\$1,683.2	\$1,683.2	\$2,409.0	\$(725.8)	\$(2,025.7)
Crane & Rigging (3001.04.08.02)	\$1,418.5	\$1,418.5	\$1,831.3	\$(412.8)	\$(1,970.7)
Guzzler Trucks (3001.04.06.03)	\$19.0	\$19.0	\$1.1	\$17.9	\$-
Fleet (3001.04.07.02)	\$1,855.4	\$1,855.4	\$3,493.5	\$(1,638.1)	\$(2,775.9)
Total UBS	\$17,104.5	\$17,104.5	\$19,239.4	\$(2,134.9)	\$(19,123.7)
Total DLA / UBS	\$19,846.8	\$19,846.8	\$23,705.3	\$(3,858.5)	\$(23,647.1)

ACWP = Actual Cost of Work Performed.

CV = Cost Variance

BAC = Budget at Completion.

BCWP = Budgeted Cost of Work Performed.

BCWS = Budgeted Cost of Work Scheduled.

FYTD Cost Variance (-\$3.9M) – Transportation DLA costs have increased in response to the ongoing Stevens Center and DOE moves, as well as the Winter weather impacts to road, lot, and walkway upkeep. Maintenance DLA cost impact is a result of continual project work, such as the water line excavation at MO720/M0721 and nozzle installation activity at the 283W Water Treatment Plant. Occupancy volume has increased due to the recent inclusion of 2261 Stevens and 1981 Snyder facilities, per the LMSI/MSA scope transition. Crane & Rigging costs have increased as a result of the support of Tank Farms and PFP. Overall, the Usage Based and Direct Labor Adder service demand is far in excess of contract baseline assumptions, especially in Fleet count/services and Training classroom student count. Due to the nature of the accounts, costs will continue to mirror increased liquidation values in all of the pools.

8.0 RELIABILITY PROJECT STATUS

Activity in December was centered on continuing progress on projects carried over from FY 2016. (Table 8-1 below.) For further information concerning accomplishments and issues related to the Reliability Projects, refer to the Site Services and Interface Management Service Area section of this report.

Table 8-1. Current Active Reliability Projects Summary

	Projects to be Completed (\$000's)															
	Contract to Date - Performance								Project Lifecycle				Complete Dates			
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	CSPI	BAC	EAC	VAC	% Complete	Complete Date	Forecast Date	Schedule at Complete	VAC Cost
Work Scope Description (ORP-14 Projects)																
L-780, 200E 13.8kV ED Sys Mods	7,588.1	7,608.8	7,618.3	20.7	(9.5)	1.0	1.0	1.0	7,608.8	7,618.9	(10.1)	100.0%	1/11/17	12/22/16	G	G
ORP-14 Subtotal	7,588.1	7,608.8	7,618.3	20.7	(9.5)	1.0	1.0	1.0	7,608.8	7,618.9	(10.1)					
Work Scope Description (RL-40 Projects)																
L-419, 24in Line Renov/Replace from 2901U to 200E	322.5	316.6	248.4	(5.9)	68.2	1.0	1.3	1.1	3,795.5	3,727.3	68.2	8.3%	3/28/18	3/28/18	G	G
L-612, 230kV Transmission System Reconditioning and Sustainability Repairs	970.0	918.8	562.1	(51.2)	356.7	0.9	1.6	1.3	1,098.0	778.3	319.7	83.7%	6/26/17	6/26/17	G	G
L-761, Phase 2a Procure, Install, & Closeout	2,113.4	1,933.6	1,134.3	(179.8)	799.3	0.9	1.7	1.3	2,162.2	1,371.2	791.0	89.4%	12/29/16	2/1/17	R	G
L-789, Prioritize T&D Sys Wood PP Test & Replace	301.0	253.3	186.0	(47.7)	67.3	0.8	1.4	1.1	1,446.3	1,446.3	0.0	17.5%	1/18/18	3/19/18	R	G
L-815, Upgrade Transmission/Distrib Access Rds	116.9	120.0	141.4	3.1	(21.4)	1.0	0.8	0.9	153.0	142.6	10.4	100.0%	12/29/16	12/15/16	G	G
L-830, Filter Plant Filter Ctrl Sys Upgrade	1,050.6	751.2	1,432.4	(299.4)	(681.2)	0.7	0.5	0.6	1,050.6	2,056.7	(1,006.1)	71.5%	9/19/16	4/27/17	R	R
L-525, 24in Line Replacement 200E	3,471.7	3,585.7	1,910.1	114.0	1,675.6	1.0	1.9	1.5	3,618.9	1,990.2	1,628.7	99.1%	3/2/17	1/30/17	G	G
L-840, 24in Line Replacement 200W	3,449.2	3,447.1	1,805.3	(2.1)	1,641.8	1.0	1.9	1.5	3,467.6	1,833.2	1,634.4	99.4%	1/27/17	1/16/17	G	G
L-775, Chip SI Rt 4s, Canton Ave to Y Barricade	156.4	156.4	122.7	0.0	33.7	1.0	1.3	1.1	1,808.8	1,775.1	33.7	8.6%	10/10/17	10/10/17	G	G
L-776, Chip SI Rt 4s, Y Brrcd to 618 Wst St Ntrnc	101.3	101.3	49.1	0.0	52.2	1.0	2.1	1.5	1,710.4	1,658.2	52.2	5.9%	10/10/17	10/10/17	G	G
L-777, Chip SI Rt 4s, 618-10 Wst Site to HR Road	123.6	123.6	82.8	0.0	40.8	1.0	1.5	1.2	1,665.7	1,624.9	40.8	7.4%	10/10/17	10/10/17	G	G
L-859, Rebuild 1st St from Canton Ave to IDF Entrance Road	135.0	135.0	108.6	0.0	26.4	1.0	1.2	1.1	1,152.6	1,126.2	26.4	11.7%	8/29/17	8/29/17	G	G
L-853, 200E Sewer Flow Equalization Facility	727.8	737.1	730.6	9.3	6.5	1.0	1.0	1.0	5,255.8	5,228.0	27.8	14.0%	1/28/19	1/28/19	G	G
L-854, 200E Sewer Consolidations	479.5	486.2	486.3	6.7	(0.1)	1.0	1.0	1.0	6,044.3	6,030.7	13.6	8.0%	11/28/18	11/28/18	G	G
L-868, Raw Water Fire Protection Loop for LAWPS	298.2	321.0	133.7	22.8	187.3	1.1	2.4	1.7	1,227.1	911.6	315.5	26.2%	12/28/17	11/21/17	G	G
L-894, Raw Water Cross Connection Isolation 200E/W	300.0	280.0	112.8	(20.0)	167.2	0.9	2.5	1.7	300.0	112.8	187.2	93.3%	11/17/16	1/5/17	R	G
RL-40 Subtotal	14,117.1	13,666.9	9,246.6	(450.2)	4,420.3	1.0	1.5	1.2	35,956.8	31,813.3	4,143.5					
Total	21,705.2	21,275.7	16,864.9	(429.5)	4,410.8	1.0	1.3	1.1	43,565.6	39,432.2	4,133.4					

Variance at Complete Cost Performance		Schedule at Complete Performance	
OK - G	Underspent or 1-10% over	OK - G	On schedule
Over Spent Y	11-30% or 100K Over Spent	Behind Y	Within 30 days
Over Spent R	>30% or 300K Over Spent	Behind R	Greater than 30 days

RELIABILITY STATUS, CONT.

Reliability Projects Variance Explanations

Contract-to-Date (CTD) Schedule Variances (SV):

- *L-612, 230kV Transmission System Reconditioning and Sustainability Repairs:* Unfavorable CTD SV is due to the late review of the draft Environmental Assessment (EA) and submittal of the Area of Potential Effects (APE) documentation. Comments on the draft EA were extensive and MSA has worked with RL to rewrite the Biological section as a template for the remaining resources. PNNL has resubmitted the floodplain analysis and it is currently under review by RL. In addition, the cultural resources field reviews have been delayed by weather conditions.
- *L-761, Replace RFAR, Phase 2a - Procure, Install, & Closeout:* A delay in hiring of the construction crew and procurement of the office and craft change trailers caused a late start of the Construction Mobilization ramp-up that caused the unfavorable CTD SV.
- *L-830, Filter Plant Filter Control System Upgrade:* Unfavorable CTD SV is because engineering design completed behind schedule impacting successor activities, delaying material delivery of valves/actuators and control panels, and work performance delays due to Filter Plant issues. Work planning and construction inefficiencies in construction increased the variance. The SV is not recoverable, and will increase until the project completes.
- *L-525, 24 Inch Line Replacement, 200E:* Favorable CTD SV is due to the contractor laying pipe more quickly than planned.

CTD Cost Variances (CV):

- *L-419, 24in Line Renov/Replace from 2901U to 200E:* Favorable CTD CV is due to utilizing previous design for proximity project and receiving less engineering costs for the design phase than planned.
- *L-612, 230kV Transmission System Reconditioning and Sustainability Repairs:* Favorable CTD CV is due to the construction subcontract performed for significantly less than the original estimate. The Environmental Assessment was contracted and not self-performed.
- *L-761, Replace RFAR, Phase 2a - Procure, Install, & Closeout:* Favorable CTD CV is primarily due to loaning project crafts to other projects, thereby significantly reducing labor costs during mobilization, as well as planned hiring of all

resources (Work Package Planner, Field Supervisor, etc.) is not complete so actual costs were not incurred. There was an additional cost savings of \$100K resulting from canceling the purchase of mobile craft break trailers because alternate accommodations had been identified and the acquisition/installation of the office and craft change trailers has not completed so no costs of approximately \$168K have occurred.

- L-789, *Prioritize T&D Sys Wood PP Test & Replace*: A change in project management caused a delay in project activities leading to the favorable CTD CV.
- L-830, *Filter Plant Filter Control System Upgrade*: Unfavorable CTD SV is due to design requiring additional funding to resolve comments provided at initial 90% design submittal, additional in-house engineering required to complete material procurement, Operations Test Procedures and Acceptance Test Procedures, and increased work package planning cost, and construction cost not anticipated, (scaffolding, rigging, outage costs, confined space efficiencies, and extensive work planning efforts). Construction costs have increased due to insufficient design details, work package planning, and unavailable materials.
- L-525, *24 Inch Line Replacement, 200E*: Favorable CTD CV is due to the award of the construction subcontract for significantly less than the initial estimate.
- L-840, *24 Inch Line Replacement 200W*: Favorable CTD CV is due to modest savings for site clearing work due to favorable site conditions, and the construction subcontract award for significantly less than the initial estimate. The significant construction cost savings are attributable to the contractor's expertise in this type of construction, and significantly less difficult site conditions currently being encountered than was assumed when preparing the initial cost estimate.
- L-776, *Chip Sl Rt 4s, Y Brrcd to 618 Wst St Ntrnc*: Favorable CTD CV is due to receiving less engineering and environmental costs than planned during the design phase.
- L-868, *Raw Water Fire Protection Loop for LAWPS*: Favorable CTD CV is due to the project support, and conceptual design/definitive design contract costing less than planned.
- L-894, *Raw Water Cross Connection Isolation 200E/W*: Favorable CTD CV is due to the Study Report utilizing fewer resources than originally anticipated.

Variances at Completion (VAC) (Threshold: +/- \$750K):

- *L-419, 24in Line Renov/Replace from 2901U to 200E*: Favorable VAC is due to utilizing previous design from a proximity project and receiving less engineering costs for the design phase than planned.
- *L-612, 230kV Transmission System Reconditioning and Sustainability Repairs*: Favorable VAC is due to the conceptual design subcontract award, Environmental Assessment contract, and planning costs being less than planned.
- *L-761, Replace RFAR, Phase 2a - Procure, Install, & Closeout*: Favorable VAC is due to Mobilization costs significantly less than planned, because project resources had been loaned to other projects pending construction start in January. Also, the procurement of the mobile break trailers was canceled. Additionally, instrument technicians, Project Control and Estimating staff, as well as the work planner, were not required full time during mobilization.
- *L-830, Filter Plant Filter Control System Upgrade*: Unfavorable VAC is due to increased costs for design work and engineering support during procurements and construction, and equipment and construction not adequately scoped.
- *L-525, 24-Inch Line Replacement, 200E*: Favorable VAC is due to modest savings for site clearing work due to favorable site conditions, and the construction subcontract award for significantly less than the initial estimate. The significant construction cost savings are attributable to the contractor's expertise in this type of construction, and significantly less difficult site conditions currently being encountered than was assumed when preparing the initial cost estimate.
- *L-776, Chip Sl Rt 4s, Y Brrcd to 618 Wst St Ntrnc*: Favorable VAC is due to receiving less engineering and environmental cost than planned during the design phase.
- *L-840, 24 Inch Line Replacement 200W*: Favorable VAC is due to modest savings for site clearing work due to favorable site conditions, and the construction subcontract award for significantly less than the initial estimate. The significant construction cost savings are attributable to the contractor's expertise in this type of construction, and significantly less difficult site conditions currently being encountered than was assumed when preparing the initial cost estimate.
- *L-868, Raw Water Fire Protection Loop for LAWPS*: Favorable VAC is due to efficiencies in project support, and receiving very competitive bids on Design and Construction contracts.



- L-894, *Raw Water Cross Connection Isolation 200E/W*: Favorable VAC is due to due to the Planning and Studies task utilizing less resource cost than originally anticipated.

Table 8 -2. Reliability Projects Schedule





RPSUM CU - Summary RP Schedule for Melodee - Current Layout: MSA - Summ RP Sched - Melodee - CU			Mission Support Alliance						Page 1 of 2											
Activity ID	Activity Name	OD	RD	% Comp	Baseline Start	Baseline Finish	Forecast Start	Forecast Finish	2015	2016	2017	2018	2019							
L-419	L-419, 24" Line Renovation/Replacement from 2901U to 200E	152	315	8.3%	10-Aug-15	28-Mar-18	10-Aug-15 A	28-Mar-18												
L-525	L-525, 24"Line Renovation/Replacement from 2901Y to 200E	152	23	99.1%	01-Apr-15	02-Mar-17	01-Apr-15 A	30-Jan-17												
L-612	L-612, 230kV Transmission System Reconditioning and Sustainability Upgrades	352	126	83.7%	31-Aug-15	26-Jun-17	31-Aug-15 A	26-Jun-17												
L-761 Ph2a	L-761, Replace RFAR Phase 2a	154	25	89.4%	20-Jul-15	29-Dec-16	20-Jul-15 A	01-Feb-17												
L-775	L-775, Chip Seal RT 4s, Canton Ave to Y Barricade	186	200	8.6%	10-Aug-15	10-Oct-17	10-Aug-15 A	10-Oct-17												
L-776	L-776, Chip Seal Rt 4S Y Brrcd to 618 Wst St Ntrnc	72	200	5.9%	15-Jun-16	10-Oct-17	21-Jun-16 A	10-Oct-17												
L-777	L-777, Chip Seal RT 4s, 618-10 Wst Site to HR Road	186	200	7.4%	24-Aug-15	10-Oct-17	10-Aug-15 A	10-Oct-17												
L-780	L-780, 200E Area 13.8kV Electrical Distribution System WFD Modifications and Upgrades	203	0	100%	19-Jan-15	11-Jan-17	01-Oct-14 A	22-Dec-16 A												
L-789	L-789, Prioritized T&D System Wood Pole Upgrades	203	308	17.5%	10-Aug-15	18-Jan-18	10-Aug-15 A	19-Mar-18												
L-815	L-815, Upgrade Transmission/Distrib Access Rds	411	0	100%	16-Feb-16	29-Dec-16	02-Feb-16 A	15-Dec-16 A												
L-830	L-830, Filter Plant Filter Control System Upgrade	125	85	71.5%	29-Jun-15	19-Sep-16	29-Jun-15 A	27-Apr-17												
L-840	L-840, 24"Line Renovation/Replacement from 2901Y to 200W	461	13	99.4%	01-Apr-15	27-Jan-17	01-Apr-15 A	16-Jan-17												
L-853	L-853, 200E Sewer Flow Equalization Facility	309	525	14%	17-Aug-15	28-Jan-19	17-Aug-15 A	28-Jan-19												
 Remaining Work  Actual Work  Baseline		MSC - Reliability Projects Summary Schedule Data Date: 25-Dec-16																		





Table 8-2, cont. Reliability Projects Schedule

RPSUM CU - Summary RP Schedule for Melodee - Current Layout: MSA - Summ RP Sched - Melodee - CU		Mission Support Alliance							Page 2 of 2												
Activity ID	Activity Name	OD	RD	% Comp	Baseline Start	Baseline Finish	Forecast Start	Forecast Finish	2015	2016	2017	2018	2019								
L-854	L-854, 200E Sewer Consolidations	283	485	8%	17-Aug-15	28-Nov-18	17-Aug-15 A	28-Nov-18													
L-859	L-859, Rebuild 1st Street, Canton Avenue to IDF Entrance	461	171	11.7%	08-Sep-15	29-Aug-17	08-Sep-15 A	29-Aug-17													
L-868	L-868, Raw Water Fire Protection Loop for LAWPS	155	230	26.2%	04-Jan-16	28-Dec-17	14-Dec-15 A	21-Nov-17													
L-894	L-894, Raw Water Cross Connection Isolation 200E/W	23	6	93.3%	29-Aug-16	17-Nov-16	29-Aug-16 A	05-Jan-17													
Remaining Work Actual Work Baseline		MSC - Reliability Projects Summary Schedule Data Date: 25-Dec-16																			

9.0 BASELINE CHANGE REQUEST LOG

Baseline Change Request Log for December

Ten Baseline Change Requests (BCRs) were processed in December.

One BCR incorporated a Contract Modification:

- VMSA-17-005 – Mod 564 –Reduce Contract Value to Cost incurred for PMTOs 14-004 and 15-002

Eight BCRs relate to Reliability Projects:

- VRL40RP-17-003 – Create Two Level 5 WBSs for Project L-859, Rebuild 1st Street from Canton Avenue to IDF Entrance Road & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- VRL40RP-17-004 - Create Two Level 5 WBSs for Project L-775, Chip Seal Route 4S Canton Avenue to Wye Barricade & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- VRL40RP-17-005 - Create Two Level 5 WBSs for Project L-776, Chip Seal Route 4S Wye Barricade to 618 Waste Site Entrance & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- VRL40RP-17-006 - Create Two Level 5 WBSs for Project L-419, 24" Line Replacement from 2901U to 200E & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- VRL40RP-17-007 - Create Two Level 5 WBSs for Project L-777, Chip Seal Route 4S 618-10 Waste Site to Horn Rapids Road & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- VRL40RP-17-009 - Create Two Level 5 WBSs for Project L-853, 200E Sewer Flow Equalization Facility & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- VRL40RP-17-010 - Create Two Level 5 WBSs for Project L-854, 200E Sewer Consolidations & Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction
- VRL40RP-17-018 – Initiate F-868, Raw Water Fire Protection Loop for LAWPS Construction & Closeout and Move RL-40 Reliability Projects Out Year Planning Budget to Begin Construction



One BCR was Administrative in Nature:

- VMSA-17-004 Rev 2 – Administrative BCR – Create Lower Level Task Order (LLTO) WBSs for Cost Collection Established in the Month of December



Table 9-1. Consolidated Baseline Change Log

Consolidated Baseline Change Log											
\$ in thousands											
						POST CONTRACT BUDGET					
PBS / Other	Reporting Baseline	Contract PMB	Contract PMB Mgmt Reserve	Contract Performance Budget (CPB)	Cum Contract Period	FY17 Budget	FY17 Management Reserve	Post Contract Budget	Post Contract Mgmt Reserve	Total Lifecycle	Cum Lifecycle Budget
Prior PMB Total	Nov 2016	1,230,506		1,230,506	1,230,506	207,103		1,119,687		2,350,193	2,350,193
VMSA-17-004 Rev 2						0		0		0	2,350,193
VMSA-17-007						(16)		(16)		(16)	2,350,177
VRL40RP-17-003						1,018		(316)		(316)	2,349,861
VRL40RP-17-004						1,652		(446)		(446)	2,349,415
VRL40RP-17-005						1,608		(416)		(416)	2,348,999
VRL40RP-17-006						2,750		(108)		(108)	2,348,891
VRL40RP-17-007						1,541		(405)		(405)	2,348,486
VRL40RP-17-009						357		(916)		(916)	2,347,570
VRL40RP-17-010						303		(957)		(957)	2,346,612
VRL40RP-17-018						749		(100)		(100)	2,346,512
	Dec 2016	1,230,506		1,230,506	1,230,506	217,065		1,116,006		2,346,512	
Prior Non-PMB Total	Nov 2016	604,007		604,007		93,498		467,603		1,071,610	1,071,610
Revised Non-PMB Total	Dec 2016	604,007		604,007		93,498		467,603		1,071,610	
Total Contract Performance Baseline	Dec 2016	1,834,513		1,834,513	1,834,513			1,583,609		3,418,122	
Management Reserve	Nov 2016		0	0		0	83		83	83	83
VRL40RP-17-003							316		316	316	398
VRL40RP-17-004							446		446	446	845
VRL40RP-17-005							416		416	416	1,261
VRL40RP-17-006							108		108	108	1,369
VRL40RP-17-007							405		405	405	1,774
VRL40RP-17-009							916		916	916	2,690
VRL40RP-17-010							957		957	957	3,647
VRL40RP-17-018							20		100	100	3,747
Revised Management Reserve	Dec 2016		0	0		0	3,667		3,747	3,747	
Total Contract Budget Base				1,834,513				1,587,357		3,421,870	
Prior Fee Total	Nov 2016	109,961		109,961		21,547		100,122		210,082	210,082
Revised Fee Total	Dec 2016	109,961		109,961		21,547		100,122		210,082	
Change Log Total	Dec 2016			1,944,473				1,687,478		3,631,952	

10.0 RISK MANAGEMENT

December risk management efforts, aiding in completing the overall MSA risk determination, included the following:

- The Risk Management Board was held to review and approve the proposed new and closed risks, and review the overall company risk posture associated with December data. The following items were approved:
 - Twenty-six new Reliability Project risks for Projects L-761, *RFAR Phase II*; L-789, *Prioritized T&D System Wood Power Poles Testing and Replacement*; L-830, *Filter Plant Filter Control System Upgrade (Valves)*; L-853, *200E/200W Force Main*; and L-854, *200E Sewer Consolidations*.
 - Four closed Reliability Project risks for Projects L-853, *200E/200W Force Main*; L-854, *200E Sewer Consolidations*; and L-868, *Raw Water Fire Loop for LAWPS*.
 - Eleven Reliability Project risks were re-characterized for Projects L-419, *24" Line Renovation / Replacement from 2901U to 200E*; L-830, *Filter Plant Filter Control System Upgrade (Valves)*; L-853, *200E/200W Force Main*; and L-854, *200E Sewer Consolidations*.
- Project Risk Analysis:
 - Monte Carlo risk analyses were completed for Projects L-419, *24" Line Renovation / Replacement from 2901U to 200E*; L-853, *200E/200W Force Main*; L-854, *200E Sewer Consolidations*; and L-868, *Raw Water Fire Loop for LAWPS*. The analysis results will be included in the project re-estimate Baseline Change Requests (BCRs) currently in draft. Preliminary analyses reports for L-612, *230kV Transmission System Sustainability Upgrades (Options Study)*; and L-830, *Filter Plant Filter Control System Upgrade (Valves)* are in the review process, with a follow on meeting scheduled in early January to review the analysis inputs for these projects.
 - Performed a monthly risk review with the Project Managers for the White Bluffs Bank (WBB) rehabilitation and the HSPD-12 Multifactor Authentication Acceleration (HSPD-12/MFA) projects to review and revise the Project risk registers prior to the Operational Project Reviews. Updates to the risk registers were captured as appropriate.



- Performed monthly risk review with the Project Managers to review and revise the Reliability Project risk registers prior to the Operational Project Reviews. Risk Management performed reviews of the following projects this week: L-419, *24" Line Renovation / Replacement from 2901U to 200E*; L-612, *230kV Transmission System Sustainability Upgrades (Options Study)*; L-775, *Chip Seal Route 4S, Canton Ave to the Wye Barricade*; L-776, *Chip Seal Route 4S, Wye Barricade to 618-10 Waste Site*; L-777, *Chip Seal Route 4S, 618-10 Waste Site to Horn Rapids Road*; L-761, *RFAR Phase II*; L-780, *200E Area 13.8kV Electrical Distribution System WFD Modifications and Upgrades*; L-789, *Prioritized T&D System Wood Power Poles Testing and Replacement*; L-815, *Upgrade Transmission/Distribution Access Roads*; L-830, *Filter Plant Filter Control System Upgrade (Valves)*; L-853, *200E/200W Force Main*; L-854, *200E Sewer Consolidations*; L-859, and L-868, *Razw Water Fire Loop for LAWPS*. Updates to the risk register were captured as appropriate.
- Risk Management reviewed the monthly Operations Project Reports for each reliability project and any related Key Risks for monthly reporting to DOE.
- Other Support:
 - Client Interface – Held the last of three pilot meetings for the Quarterly RL/MSA Risk Management Interface. Risk Management communicated the status of action items from previous meetings, discussed the path forward for future interface between MSA and DOE.

11.0 DASHBOARD SUMMARY

Table 11-1. Performance Evaluation and Measurement Plan

December FY 2017						
2017 Performance Evaluation and Measurement Plan						
Deliverables			Plan	MSA	Status	
					YTD	Dec
1.0 Effective Site Cleanup						
1.1 Enable mission contractors to achieve their cleanup mission by delivering timely service and reliable infrastructure that support customer key milestones and regulatory commitments.	1.1.1		Demonstrate that the following performance measure targets were met.		Brockman	
		a	Biological Controls – Pest Removal		Synoground	
		b	Biological Controls – Tumbleweed Removal		Synoground	
		c	Biological Controls – Vegetation		Synoground	
		d	Crane and Crew Support		Brockman	
		e	Electrical – Power Availability		Synoground	
		f	Facilities Maintenance		Brockman	
		g	Fire Protection System Maintenance		Walton	
		h	Fleet Services – Heavy Equipment (Cranes)		Brockman	
			Fleet Services – Heavy Equipment (Evacuators)		Brockman	
			Fleet Services – Heavy Equipment (General Purpose)	9/30/2017	Brockman	
		i	Fleet Services – Light Equipment (Hanford Patrol)		Brockman	
			Fleet Services – Light Equipment (Hanford Fire)		Brockman	
			Fleet Services – Light Equipment (Special Purpose Trucks)		Brockman	
		j	IT - Cyber Security – System Patching		Eckman	
		k	PFP Support - Loaned Labor		Brockman	
		l	Public Works - Maintenance Backlog		Metzger	
		m	RSS - Dosimetry External Services		Wilson	
		n	RSS - Instrument Calibration		Wilson	
		o	Spent Fuel Activity Support - Loaned Labor		Brockman	
		p	Water – Potable		Synoground	
			Water – Raw		Synoground	
	1.1.2	Implement FY17 actions per the approved schedule of the MSC-PLN-ENG-56352 Maintenance Maintenance Program Management Plan Rev 2 and HNF-56046, rev 5 MSA Maintenance Program Five-Year Plan.		9/30/2017	Metzger	
	1.1.3	Transition Public Works Maintenance Backlog process to required Deferred Maintenance Management process.		9/30/2017	Synoground	
	1.1.4	Complete approved project investment portfolio elements as measured by the cost/schedule performance index, which is calculated as (CPI + SPI)/2.		9/30/2017	Brockman	

LEGEND

= On schedule

= Complete

= In jeopardy


= Objective missed


= N/A


Table 11-1. Performance Evaluation and Measurement Plan, Cont.

2.0 Efficient Site Cleanup						
2.1 Demonstrate MSA's responsiveness and alignment of resources and equipment to meet the cleanup contractors' project requirements in support of key milestones.	2.1.1	Maximize efficient MSA use of resources to meet the other Hanford contractors' changing project needs.	9/30/2017	Brockman		
	2.1.2	Demonstrate consolidation of the Hanford Site infrastructure footprint to the 75-square miles of the Central Plateau. Submit a plan and schedule for approval by 10/15/16 and implement FY17 actions per the approved schedule.	9/30/2017	Synoground		
	2.1.3	Demonstrate effective safety and quality management to include, but not be limited to, a robust Contractor Assurance System.	9/30/2017	Jensen		
	2.1.4	Demonstrate effective Hanford Site integration to include, but not limited to, identifying longstanding or emerging issues that affect efficient site operations and provide recommendations for improvement (e.g., WTP integration, WCH transition, contract re-alignments, etc.).	9/30/2017	Brockman		
	2.1.5	Apply disciplined work controls to Fire Systems Maintenance by fully emulating Phoenix to maximize safety, compliance, and integration with OHCs for site fire systems.	9/30/2017	Walton		
	2.1.6	Provide Hanford contractors with integrated tools to maximize "wrench time."	9/30/2017	Metzger		
3.0 Comprehensive Performance						
Execute the balance of contract work scope within the contract requirements, terms, and conditions, demonstrating excellence in quality, schedule, management, cost control, small business utilization, and regulatory compliance.			9/30/2017	Wilkinson		
Provide leadership to improve management effectiveness and collaborate and participate proactively with customers.						
Work with DOE and the other Hanford contractors in a spirit of cooperation to demonstrate operational excellence to include, but not limited to, the following areas:						
o Business and financial management using approved purchasing, estimating, property, budget, planning, billing, labor, accounting, and performance measurement systems, providing visability and transparency to DOE with respect to each of the foregoing						
o Contract change management and subcontract administration and consent activities, e.g., proposal review and negotiation process, including timely and adequate submission of proposals and requests for additional data, timely counteroffers, and attaining small business goals						
o Safeguards and security, fire department operations, emergency response, and emergency						
o Land Management						
o Infrastructure and services program management, operations and maintenance						
o Effective contractor human resources management						
o Problem identification and corrective action implementation						
Performed work safely and in a compliant manner that assures the workers, public, and environment are protected from adverse consequences						

LEGEND

 = On schedule

 = Complete

 = In jeopardy

 = Objective missed

 = N/A

12.0 CONTRACT DELIVERABLES STATUS

The following itemizes the contract deliverables due to RL in December, and provides a 30-day look ahead through January 2017.

Table 12-1. December 2016 – January 2017 Contract Deliverables

CDRL	Deliverable	Responsible	Date Due	Date Submitted to DOE	Action	Response Time	Date Due from DOE	Date Approved by DOE
CD0008	Force-on-Force Test Results	Walton	12/3/16	11/30/2016	Review	45 days	1/15/17	12/28/2016
CD0123	Monthly Billing Reports for DOE Services - Nov	Eckman	12/5/16	11/30/2016	Information	N/A	N/A	N/A
CD0144	Monthly Performance Report - Oct	Olsen	12/10/16	12/8/2016	Review	None	N/A	N/A
CD0111	Contractor Personal Property Management Balanced Scorecard Report	Eckman	12/20/16	12/21/2016	Review	10 days	12/31/16	
CD0189	Site Sustainability Plan	Wilson	12/21/16	12/14/2016	Review	N/A	N/A	N/A
CD0043	Limited Emergency Preparedness Evaluation / Training Exercise Reports	Walton	12/23/16	12/21/2016	Approve	45 days	2/5/17	
CD0084	Bonneville Power Administration (BPA) Power and Transmission Service invoice verification and breakdown of site contractor costs - Oct	Synoground	12/30/16	12/27/2016	Review	30 days	1/27/17	
CD0080	Replacement of GSA Leased Vehicles Report	Brockman	12/30/16	12/21/2016	Review	30 days	1/21/17	
CD0076	Annual Catalog - Seismic	Wilson	12/31/16	12/29/2016	Review	30 days	1/29/17	
CD0123	Monthly Billing Reports for DOE Services - Dec	Eckman	1/5/17	1/5/2017	Information	N/A	N/A	N/A
CD0124	Quarterly Service Level Report	Eckman	1/10/17	1/13/2017	Information	N/A	N/A	N/A
CD0144	Monthly Performance Report - Nov	Olsen	1/10/17	1/10/2017	Review	None	N/A	N/A
CD0178	Quarterly Manpower Reports and Budget Forecasts	Walton	1/16/17	1/12/2017	N/A	N/A	N/A	N/A
CD0084	Bonneville Power Administration (BPA) Power and Transmission Service invoice verification and breakdown of site contractor costs - Nov	Synoground	1/30/17		Review	30 days		
CD0039	Mutual Aid Agreements	Walton	1/31/17		Review	None	N/A	N/A
CD0064	Hanford Site Environmental Surveillance Master Sampling Schedule	Wilson	1/31/17	1/16/2017	Approve	30 days	2/16/17	

NOTE: Areas shaded in gray indicate delivery to DOE, and when the "Date Approved by DOE" is shaded, approval has been received in return.

"Review" responses from DOE are not documented with dates, but shaded when complete.

IAMIT = Interagency Management Integration Team.

TPA = Tri-Party Agreement.

N/A = No action.





12.1 GOVERNMENT-FURNISHED SERVICES/INFORMATION AND DOE DECISIONS

There are two Government-Furnished Services and Information (GFS/I) items due to MSA in 2017:

- GF049, due June 1, 2017: DOE to provide a Hanford “planning case” budget to prepare the updated *Hanford Lifecycle Scope, Schedule, and Cost Report*, and
- GF050, due October 31, 2017: DOE Approval of the *DRAFT Hanford Lifecycle Scope, Schedule, and Cost Report* (Lifecycle Report).

On-time delivery of both of these items is anticipated.



13.0 SELF-PERFORMED WORK

Table 13-1. Mission Support Contract Socioeconomic Reporting.

Plan Category	MSA Goal	FY 2017 Actual To-Date	Cumulative %
Small Business	50.0%	89.6%	55.0%
Small Disadvantaged Business	10.0%	30.1%	16.3%
Small Women-Owned Business	6.8%	21.7%	11.7%
HubZone	2.7%	13.8%	4.3%
Small Disadvantaged, Service Disabled	2.0%	11.8%	4.5%
Veteran-Owned Small Business	2.0%	12.0%	6.1%

Through December 2016

Prime Contract Targets:

- At least 40% contracted out beyond MSA, LLC = 47% (\$1,380M/\$2,920M)
- Small Business 25% of Total MSC Value = 26% (\$758M/\$2,920M)

Potential fee reduction based on cumulative at Year eight (8) of the MSA contract.



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SERVICE AREA SECTIONS

Individual Service Area Section reports for December are included as follows:

- Business Operations
- Emergency Services
- Environmental, Safety & Health
- Information Management
- Portfolio Management
- President's Office
- Public Works
- Site Services & Interface Management
- Training & Conduct of Operations



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MISSION SUPPORT ALLIANCE

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Business Operations

Rich Olsen, Vice President and Chief Financial Officer

Monthly Performance Report

December 2016



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INTRODUCTION

The Business Operations organization supports the Mission Support Alliance, LLC (MSA) by providing required business administration activities including internal management, Human Resources (HR), contract and subcontract administration, and financial controls to effectively manage the Mission Support Contract (MSC). Business Operations is responsible for activities that include HR, Finance and Accounting (F&A), Program Controls, and Contracts. HR promotes competitive compensation, benefits, and development opportunities for the MSA and its teaming partners, enabling them to provide distinctive service to customers. HR is also responsible for developing and implementing personnel policies; offering creative staffing solutions; facilitating positive interaction and employee relations; and making cost-effective, value-based decisions. F&A includes accounts payable, accounts receivable, general ledger reconciliation, payroll and all payroll services for nine companies, pricing and cost estimating, and validating the timekeeping system. Program Controls includes scope, schedule, and cost baseline management, planning, baseline change, work integration and control, and performance reporting. Contracts includes acting as the primary point of contact for the MSA in all contractual matters with the U.S. Department of Energy (DOE), Richland Operations Office (RL). Contracts supports all MSA functional areas by providing contract administration and management; monitors all aspects of contract performance; provides subcontracting and purchasing support to accomplish the MSC mission and support the Hanford Site; reviews incoming correspondence for contractual impacts; assigns and tracks all open action items to completion; and starting in fiscal year (FY) 2017, provides Property and Warehouse Management services, including Inventory Management, Excess Property, Receiving, Warehousing, Shipping, Stores Delivery, and Courier Services.

KEY ACCOMPLISHMENTS

PROGRAM CONTROLS

Update of FY 2017 Integrated Investment Portfolio (IIP) – MSA transmitted the updated FY 2017 IIP and Reliability Project Investment Portfolio to RL for review and approval on December 21, 2016, ahead of the December 31, 2016 due date. The IIP submittal included information in accordance with the Contract/Baseline Alignment Guidance (C/BAG) requirements, and presented the updated baseline planning for direct funded Program Baseline Summaries (PBSs).

Performance Incentive (PI) 2.1.4 Self-Assessment Activities – MSA’s self-assessment to evaluate the relationships and functions of MSA’s systems for effective planning, organizing, controlling, and reviewing all activities (PI 2.1.4) continued in December. In November, the assessment team had completed interviews of both RL and MSA personnel to identify planning, performance information and business system areas of improvement and strengths. In December meetings were held to prepare the initial composite observations, consolidate common themes, and identify key observations. A first draft report of the self-assessment was prepared, and briefings to MSA senior management were held. Completion of the final self-assessment briefing to RL is due by January 30, 2017.

HUMAN RESOURCES (HR)

Affirmative Action Training – MSA partnered with DOE and the Department of Labor (DOL) to provide Affirmative Action classroom training to Hanford hiring managers and HR personnel. The training was held at the Federal Building by the Office of Federal Contract Compliance Programs (OFCCP) trainers. The program focused on key elements and components of the affirmative action plan, manager’s obligations toward affirmative action, and how hiring managers can impact the affirmative action plan. Exclusive training sessions were provided to MSA which included a question and answer period. Over 100 MSA managers, Human Resources personnel and senior leaders attended the training.

Summary Annual Reports – MSA HR prepared and distributed 12,273 Summary Annual Reports to Hanford Site Savings Plan and Hanford Employee Welfare Trust Participants. Reports were emailed to 2,847 of those Participants consistent with their eDelivery elections. Summary Annual Reports are a required disclosure and provide summary financial information to Participants.

CONTRACTS AND PROCUREMENT

Contract Change Management Activities – In December, MSA submitted two Truth in Cost and Pricing Data (TCPD) submissions on active proposals. One was the Long Term Stewardship 100 B/C and 100 D/H Areas Proposal, and the other was the Information Technology (IT) Transition of Washington Closure Hanford, LLC (WCH) to the CH2M HILL Plateau Remediation Company (CHPRC) proposal. In addition, MSA negotiated with RL for an extension on the HSPD-12 Multifactor Authentication Acceleration proposal so MSA resources can continue to prioritize its support to the issue of the Logical Access Control System (LACS) cards.

PROPERTY AND WAREHOUSE MANAGEMENT

Pretreatment Engineering Platform (PEP) screening process – MSA completed screening of the PEP, a \$40-60 million (M) mock-up of systems to be used in the Waste Treatment Plant currently in Washington River Protection Solutions LLC's (WRPS) custodianship, for potential reuse within the DOE complex. No other DOE entity claimed all or any part of the PEP through the screening process, so MSA will continue to work with WRPS on its final disposition pathway through the MSA excess process.

FINANCE AND ACCOUNTING

Financial Services – MSA continues to display excellent collaboration with the other Hanford Contractors through disbursements accounting and payroll services. For Fiscal Year-to-Date as of December 2016, MSA performed payroll/accounting for other Hanford contractors, as shown below:

- Performed manual entry and approval of 418 timecards for those on short-term disability for CH2M HILL Plateau Remediation Company (CHPRC) and Washington River Protection Solutions LLC (WRPS);
- Processed 53 cash receipts for CHPRC, WRPS, and Fluor Hanford (FH);
- Processed 33,753 paychecks/advices for CHPRC and WRPS employees;
- Processed 720 physical checks to vendors for FH, CHPRC, and WRPS;
- Processed 1237 electronic payments to vendors for FH, CHPRC, and WRPS;
- Entered 245 invoices for FH, CHPRC, and WRPS (includes payments for union dues, garnishments, and general contract and purchase order invoices);
- Processed 36 garnishments and reported them to various courts across the United States for CHPRC and WRPS; and
- Processed 11,059 timecard corrections for CHPRC, and WRPS.

KPMG FY 2009/FY 2010 ICS Audit Support – On December 1, 2016, MSA Finance submitted to DOE its response to the DOE request to provide corrective actions for items identified in the FY 2010 audit of the Incurred Cost. Then, on December 19, 2016, MSA Finance submitted to DOE its response to the DOE request to provide corrective actions for items identified in the FY 2009 audit of the Incurred Cost.

Change in Accounting Practice – On December 19, 2016, MSA received DOE approval for an MSA Accounting Practice change to transfer Fleet Asset Management costs from Site Wide Services to the Fleet Maintenance Variable Service.



LOOK AHEAD

CONTRACTS AND PROCUREMENT

Contract Change – MSA is preparing a Notification of Change to the contract as a result of the Occupational Safety and Health Administration published new rules 29 CFR 1910 Subpart D, (1910.21 through 1910.30) and Subpart I (1910.132 through 1910.269) on November 18, 2016 that requires changes to the DOE procedure DOE-0346, *Hanford Site Fall Protection Program (HSFPP)*, a document in support of Hanford Site-Wide Standards. MSA intends to utilize interim controls to ensure MSA's compliance to the new rules that will affect the way MSA and Hanford contractors perform work, and will also require training and qualification of personnel. DOE-0346, Revision 0, is currently within the MSC. Revision 1A comprises major program revisions yet to be incorporated into the MSC, as DOE is presently evaluating candidate facility options or other solutions to facilitate compliance with Revision 1A.

MAJOR ISSUES

None to report.

SAFETY PERFORMANCE

There were no Occupational Safety and Health Administration (OSHA) or First Aid Injury cases reported for Business Operations in December 2016.

BASELINE PERFORMANCE

Table BO-1. Business Operations Cost/Schedule Performance (dollars in millions).

Fund Type	December 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0011 – Nuclear Mat Stab & Disp PFP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.3	\$1.3	\$1.3	\$0.0	\$0.0
RL-0012 – SNF Stabilization & Disp	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	\$0.5	\$0.5	\$0.0	\$0.0
RL-0013 – Solid Waste Stab & Disp	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.6	\$1.6	\$1.6	\$0.0	\$0.0
RL-0020 - Safeguards & Security	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	\$0.5	\$(4.0)	\$0.0	\$4.5
RL-0030 – Soil & Water Rem-Grndwtr/Vadose	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.4	\$1.4	\$1.4	\$0.0	\$0.0
RL-0040 - Nuc. Fac. D&D – Remainder Hanford	\$0.0	\$0.0	(\$0.1)	\$0.0	\$0.1	\$2.8	\$2.8	\$0.7	\$0.0	\$2.1
RL-0041 - Nuc Fac D&D - RC Closure Proj	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
Site-wide Services	\$1.1	\$1.1	\$1.2	\$0.0	(\$0.1)	\$104.4	\$104.4	\$78.7	\$0.0	\$25.7
Subtotal	\$1.1	\$1.1	\$1.1	\$0.0	\$0.0	\$112.5	\$112.5	\$80.2	\$0.0	\$32.3

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

BAC = Budget at Completion

CV = Cost Variance

CTD = Contract-to-Date

FYTD = Fiscal Year-to-Date

SV = Schedule Variance

BASELINE PERFORMANCE VARIANCE

(WBS Elements 3001.06.01 [Business Operations], 3001.06.02 [Human Resources], and 3001.90.04 [MSA Transition])

Current Month Cost Variance (\$0.0M) – December monthly costs on Plan.

Contract-to-Date (CTD) Cost Variance (+\$32.3M) – The positive CTD cost variances in RL-20, RL-40 and Site-wide Services are primarily due to September 2016 credits associated with Affiliate Fee on Information Technology scope and Training on Overtime pending final resolution.



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Emergency Services

Craig Walton, Vice President

Monthly Performance Report

December 2016



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INTRODUCTION

The Emergency Services (ES) organization supports the site environmental clean-up missions by providing protective forces, physical security systems, information security, personnel security, nuclear Materials Control and Accountability, cyber security, program management, fire and emergency response services, and emergency operations.

KEY ACCOMPLISHMENTS

EMERGENCY MANAGEMENT PROGRAM (EMP)

Continuity of Operations Plan – Emergency Management submitted the MSA Continuity of Operations Program plan to the U.S. Department of Energy (DOE) Richland Operations Office (RL) for approval on December 21, 2016.

Radiological Assistance Program (RAP) Region 8 Support – Rap 8 personnel participated in an Outreach Activity in Seattle, WA, with the Federal Bureau of Investigation on December 12, 2016.

Emergency Management Contract Deliverables – Contract Deliverable CD0043, *Limited Emergency Preparedness Evaluation/Training Exercise Report*, was submitted to RL on December 21, 2016 and Contract Deliverable CD0041, *Emergency Readiness Assurance Plan (ERAP)*, was approved by RL on December 28, 2016.

HANFORD FIRE DEPARTMENT (HFD)

Hanford Fire Protection Program Procedures Assessment – The HFD received RL's report on December 28, 2016, for the Hanford Fire Protection Program Pre-Fire Strategies, Plans and Standard Operating Procedures Assessment that was conducted April 14-May 27, 2016. There were no findings or suggestions identified in this assessment, and the overall rating is Satisfactory.

SAFEGUARDS AND SECURITY (SAS)

Centerra Corporate Assistance Visit – Centerra corporate personnel visited December 5-9, 2016. Areas reviewed during the visit included New Protection Strategy, Central Alarm System/Secondary Alarm System Operations, Federal Alarm Rate/Nuisance Alarm Rate data collection and reporting, Contractor Assurance System, Contractor Management Assessments, Issue Management Program and any current and future challenges.



Change to Classified Cyber Security Deliverables – SAS personnel received approval from RL to cancel Contract Deliverable CD0023, *Classified ISSP*, and CD0024, *Certification Packages (EM PCSP)*, and for the addition of CD0023a, *National Security System (NSS) Quarterly Status Report*, on December 12, 2016. As of October 1, 2016, Contract Deliverable CD0023a will now be submitted on a quarterly basis. This change reflects the decommissioning of the Local Area Network Material Accountability System and the incorporation of National Security System Safeguards (NSS) Security Local Area Network.

Safeguards and Security Contract Deliverable Approved – Contract Deliverable CD0008, *Force-On-Force Test Result*, was approved on December 28, 2016.

LOOK AHEAD

Nothing to report

MAJOR ISSUES

None to report

SAFETY PERFORMANCE

In December, Emergency Services reported one Occupational Safety and Health Administration (OSHA) recordable injury after an employee suffered a twisted knee. In addition, there was one first-aid injury reported of a minor eye irritation. No vehicle accidents were reported during the month.

BASELINE PERFORMANCE

Table ES-1. Emergency Services Cost/Schedule Performance (dollars in millions).

Fund Type	December 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
HSPD-12 (RL-0011,RL-0012, RL-0013, RL-0030)	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$2.8	\$2.8	\$2.4	\$0.0	\$0.4
RL-0020 - SAS	\$4.5	\$4.5	\$5.0	\$0.0	(\$0.5)	\$417.0	\$417.0	\$431.1	\$0.0	(\$14.1)
Site-wide Services	\$2.1	\$2.1	\$2.8	\$0.0	(\$0.7)	\$190.6	\$190.6	\$205.8	\$0.0	(\$15.2)
Subtotal	\$6.8	\$6.8	\$8.0	\$0.0	(\$1.2)	\$610.4	\$610.4	\$639.3	\$0.0	(\$28.9)

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

Explanation of Fund Type Assignments by Project Baseline System (PBS) and Work Breakdown Structure (WBS): HSPD-12 work was funded by four different PBSs (RL-0011, RL-0012, RL-0013, RL-0030) in FY16 under WBS 3001.01.05.02, and carryover funding of \$1.1M will be spent against the HSPD-12 scope in FY17. New FY17 HSPD-12 funding and scope is now funded under Site-wide Services, WBS 3001.01.05.04. Other areas funded by Site-wide Services are Hanford Fire Department, WBS 3001.01.02, Site-wide Emergency Management, WBS 3001.01.03, and Emergency Services Management, WBS 3001.01.05.01. PBS RL-0020 (Safeguards and Security) work is budgeted under WBS 3001.01.01.

BASELINE PERFORMANCE VARIANCE:

Current Month (CM) Cost Variance (CV) (-\$1.2M) – CM negative CV is attributed to several baseline differences as described in the Contract-to-Date variance. ES is working to RL-directed contract baseline re-alignment guidance that provides for a higher spending target than the baseline.

Contract-to-Date CV (-\$28.9M) – The primary drivers for the negative CTD CV are the continued storage of Special Nuclear Material on the Hanford Site (not in the original baseline assumptions); implementation of new Design Basis Threat guidance, which was implemented subsequent to the MSA baseline proposal; and a baseline budgeting omission for platoon shift hours with the HFD. The above activities are being worked according to RL-directed contract baseline re-alignment guidance that provides for a higher spending target than the baseline. No mitigating actions are in place at this time to reduce the overall cost overrun.



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Environmental, Safety, & Health

Mike Wilson, Vice President

Monthly Performance Report

December 2016





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INTRODUCTION

The Environmental, Safety & Health (ES&H) organization includes the following work groups:

- Worker Protection;
- Integrated & Site Wide Safety Standards;
- Safety & Health Program Support;
- Hanford Atomic Metal Trades Council/Hanford Guards Union (HAMTC/HGU) Safety Representatives;
- Environmental Integration Services (EIS);
- Public Safety & Resource Protection (PSRP); and
- Radiological Site Services (RSS).

This team ensures that all environmental, safety and health requirements are met so that Mission Support Alliance, LLC (MSA) provides its services in a safe and environmentally sound manner. The ES&H organization develops, implements and improves Integrated Safety Management, worker safety and health and radiation safety procedures that govern the work performed by MSA.

KEY ACCOMPLISHMENTS

Resolution of Stop Work and Return to Cultural Resources Monitoring for 316-4 Waste Site Remediation – PSRP, Cultural and Historic Resources Program (CHRP) staff, worked with the CH2M Hill Plateau Remediation Company (CHPRC) Remediation Project to develop a path forward in response to changes in safety requirements at the 316-4 waste site. Remediation of the 316-4 waste site requires monitoring by an archaeologist to maintain compliance with existing cultural reviews. A recent discovery of unanticipated waste material caused a reevaluation of safety measures for all personnel on the project. New procedures and protocols were established that will allow CHRP staff to conduct monitoring in a safe and effective manner.

600 Area Fuel Station Inspection – EIS participated in a State of Washington Department of Ecology (Ecology) Air Operating Permit (AOP) inspection at the 600 Area Fuel Station. The purpose of the inspection was to verify compliance with AOP conditions for the fueling station. Ecology inspected fuel tank filling ports, vapor recovery systems, and fuel dispensing equipment in addition to fuel delivery logs and

maintenance records for Fiscal Year (FY) 2015 and FY 2016. Ecology did not identify any issues or concerns during the inspection.

CHRP, Project/Program Interface Meeting – PSRP CHRP is coordinating efforts with CHPRC project personnel regarding the Cultural Resource Review (CRR) for the project to remove, treat, and dispose of materials from Waste Sites 600-393 and 600-403.

Options to reduce the project footprint within an eligible archaeological site without limiting necessary project activities were discussed. One waste site requires removal of batteries that are part of a contributing component of the eligible site. CHRP and project personnel discussed limiting activities to hand removal of items and the use of a cultural resources monitor to ensure no adverse effects to this historic property. A CRR highlighting the proactive efforts of both CHRP and project personnel can now be completed and submitted to the U.S. Department of Energy (DOE) Richland Operations Office (RL) for review.

Bald Eagle Night Roost Surveys – PSRP Ecological Monitoring staff performed a survey of the Hanford Reach for bald eagle use. A corresponding night roost monitoring effort was also performed. During the survey, 50 eagles were seen, which was a significant drop from the past two years (142 eagles in 2014 and 136 in 2015). The corresponding night roost survey saw 36 eagles, close to matching the historical trend of 65% of daytime eagles using Hanford as a nighttime roost area as well. Federal laws, including the Bald and Golden Eagle Protection Act of 1940 and the Migratory Bird Treaty Act of 1918, provide protection for eagles, their nest trees, and communal night roosts. The DOE has the *Bald Eagle Management Plan* for the Hanford site that defines appropriate protection measures for nests and roost sites based on federal and state guidelines. To ensure compliance with protection regulations, and to inform future protection and management efforts, monitoring is essential to maintain current biological information about bald eagle abundance and distribution on the Hanford Site.

Ultra-Low Sulfur Diesel (ULSD) Fuel Certification – EIS facilitated a meeting between the State of Washington, Department of Ecology (Ecology) and MSA Fleet Services to discuss certification of ULSD fuel. Ecology had provided bills of lading (BOLs) from MSA's fuel supplier containing a statement that the fuel delivered to Hanford meets the 15 parts per million (ppm) sulfur maximum allowed in the regulations. Ecology had contended that ULSD fuel certifications are required from all refineries and pipelines distributing fuel to the terminals from which the fuel is obtained. At the meeting, Ecology was informed that, as a wholesale purchaser and consumer of ULSD fuel, MSA is not required to have an oversight or testing program to verify fuel quality and the BOLs provided by the fuel supplier are sufficient certification that the 15 ppm sulfur



requirement was met. Ecology subsequently sent an email to MSA agreeing that the BOLs provide sufficient evidence that the ULSD fuel meets the sulfur maximum requirements.

Environmental Air Monitoring Station Efficiency – Ambient air samples are collected on/near the Hanford site to provide data required for radiological dose calculations to the public and/or to provide compliance monitoring data for projects/facilities that have required monitoring per state and/or federal regulations. PSRP Environmental Surveillance staff analyzed the operational statistics of the environmental [ambient] air sampling stations for the most recent available sample collection period (through November 30, 2016) and for the coinciding previous 12-month period. For the current period, the stations operated at 97.3 percent efficiency with a sample collection proficiency of 97.9 percent. For the 12-month period, the stations operated at 97.0 percent efficiency with a sample collection proficiency of 97.9 percent.

LOOK AHEAD

Solid Waste Landfill – EIS was notified that funding to repair the interim closure cap of the Solid Waste Landfill has been approved by DOE. A kick-off meeting has been scheduled for January 3, 2017. The cover of the landfill has suffered greatly over the last 20-plus years with subsidence, creating numerous depressions and pot holing throughout the landfill area.

MAJOR ISSUES

Environmental Management System (EMS) Certification – EIS was informed that Bureau Veritas (certification body) is seeking to perform an unplanned EMS audit in January. The audit is a corrective action to address a weakness in the Bureau Veritas process for transferring certificates. The transfer of the MSA certificate from the previous certification body (NSF International Strategic Registrations [NSF-ISR]) is included in this corrective action. The MSA contract specialist has requested an alternative to the on-site visit.

SAFETY PERFORMANCE

ES&H reported no Occupational Safety and Health Administration Recordable injuries in December. One First Aid injury was reported when an employee slipped on the ice and suffered an injured wrist.



BASELINE PERFORMANCE

Table ES&H-1. ES&H Cost/Schedule Performance (dollars in millions).

Fund Type	December 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
Site Wide Services	\$2.4	\$2.4	\$2.5	\$0.0	(\$0.1)	\$210.7	\$210.7	\$213.0	\$0.0	(\$2.3)
Subtotal	\$2.4	\$2.4	\$2.5	\$0.0	(\$0.1)	\$210.7	\$210.7	\$213.0	\$0.0	(\$2.3)

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

BASELINE PERFORMANCE VARIANCE

SWS – ES&H (WBS 3001.02.01, 3001.02.02, 3001.02.03, 3001.02.04, 3001.04.11 and 3001.06.03)

Current Month (CM) Cost Variance (CV) (-\$0.1M): – CM unfavorable CV is attributed to baseline differences as described in the Contract-to-Date (CTD) variance. ES&H is working to RL-directed guidance that provides for a higher spending target than the baseline.

CTD CV (-\$2.3M) – The unfavorable CTD CV is primarily due to the approved funding and work scope continuing at a higher level of support than assumed in the contract baseline. There are no other potential contributing factors. Prior to FY 2014, funds and budget were more closely aligned, resulting in minimal variances. In FY 2014, the Environmental funding was virtually cut in half, resulting in staffing reductions and CTD underruns. In FY 2015, the Environmental funding was restored, and then both Environmental and Safety/Health programs received funding increases to support the level of service required by the Hanford Site. The resulting overruns consumed the prior CTD underrun. In FY 2016, the funding was again significantly higher than budgeted values, resulting in additional CTD overruns.

MISSION SUPPORT ALLIANCE

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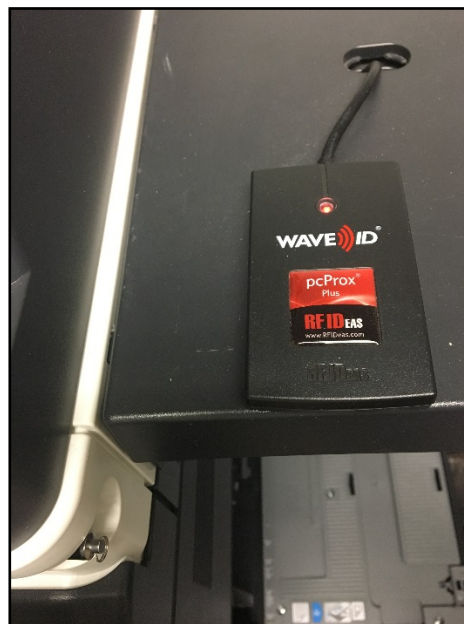


Information Management

Todd Eckman, Vice President

Monthly Performance Report

December 2016



New Printer Drivers Installed to Enable Added Card Reader Function



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INTRODUCTION

Mission Support Alliance, LLC's (MSA's) Information Management (IM) organization brings best-in-class IM services to the Hanford Site. A variety of infrastructure, services, and applications are provided that include support to safety, security, site infrastructure, and cleanup missions; administrative support systems and processes; telecommunications and network infrastructure; records, document, and content management; cyber security; network operations and security center; desktop services; Information Support services including reproduction services; site forms; multi-media services; geospatial IM and site mapping services; and the Mission Service Desk.

The goal of IM is to ensure technology solutions and innovation in supporting every project's success associated with the Hanford Site cleanup mission. IM's goal is achieved by confirming that top-quality services and solutions are delivered in a professional and timely manner.

KEY ACCOMPLISHMENTS

IM BUSINESS OFFICE

Money Saved by Reassigning Software Licenses – MSA IM has saved \$14,000 by reassigning spare electronic software acquisition licenses. MSA IM has assigned a single point of contact to actively manage these licenses pools and reuse spare licensing vs. automatically adding a new license for each customer request. Once all the spare licenses have been consumed, cost will be incurred to customers for new licensing as required; however, the new process will continue to verify if spares exist prior to adding new licenses and incurring cost.

Convenience Copier Option Added Site Wide – In collaboration with Konica Minolta¹, and the local distributor, MSA Convenience Copier staff worked to set up new print drivers on the bizhub C558 multifunction color printer to enable Site usage of a new badge card reader function. During December, the MSA/vendor technical team installed and successfully tested the new print driver. End users are now able to use the new badge card readers on the C558 machines Site wide.

¹ Konica Minolta, Ramsay, New Jersey 07446

CYBER SECURITY

Risk Assessments (RA) Revised – Cyber Security finalized new revisions of the Hanford Accreditation Boundary (HAB) System Security Plan and the HAB RA. Both documents were reviewed and approved by the Information System Security Manager and the primary Information System Security Officer. They are currently being routed for approval by the U.S. Department of Energy (DOE) Authorizing Official Designated Representative and the Authorizing Official.

CONTENT & RECORDS MANAGEMENT (CRM)

Record Transfer Form (RTF) Verification Process – A process to perform random checks on a percentage of the boxes held in the Records Holding Area (RHA) to ensure the contents of the box match the Record Transfer Form (RTF) has begun. When boxes located at the RHA are requested for review, the RHA staff is checking that each box contains an RTF, that the information on the RTF matches the box contents, and that the appropriate records schedule has been applied. During December, RTFs were verified for nine boxes. This process will be followed for every box retrieved from the RHA.

SOFTWARE ENGINEERING SERVICES

Regulatory and Management Assessment Process (RMAP) Issue Resolved – In December, MSA IM RMAP worked to resolve a customer-requested RMAP issue. Work on the test plan and procedure was completed, and signatures were gathered for documentation. In addition, the Production Readiness Review Board approved the Version Description Document. The RMAP production database and web application servers were created. Implementation was completed on December 14, 2016.

LOOK AHEAD

Firewall and Proxy Replacement – The current end-of-life core firewalls and proxies are to be replaced with a new firewall. Work has begun, and completion is expected in Fiscal Year (FY) 2017.

Washington Closure Hanford LLC (WCH) Records Transfer – MSA CRM participated in a customer support meeting with WCH, Records Management, IM, IT, and MSA Human Resources staff to discuss turning over WCH records to MSA at the end of the WCH contract. WCH plans are to transfer approximately 12,000 records to IDMS in two stages. The first stage occurred in September at the end of the WCH contract; the second stage is planned for a few months later to allow for the final records to be completed.

Key Performance Goals Dashboard Revision – IM is working on the development of the FY Work Plan change to the DOE Richland Operations Office’s Key Performance Goals dashboard. This change will tie the Operations Key Performance Goals into flat file metrics, eliminating the need for the projects to manually enter the data in two places. Once completed, the system will automatically generate the necessary data and calculate the status of completed FY Work Plan metrics for the Key Performance Goals.

MAJOR ISSUES

None to report.

SAFETY PERFORMANCE

There were no OSHA recordable injuries reported in December. There were no first-aid injuries reported and no vehicle accidents reported.

BASELINE PERFORMANCE

Table IM-1. IM Cost/Schedule Performance (dollars in millions).

Fund Types	December					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0020 - Safeguards & Security	\$0.2	\$0.2	\$0.2	\$0.0	\$0.0	\$13.1	\$13.1	\$16.0	\$0.0	(\$2.9)
RL-0040 - Nuc. Fac. D&D - Remainder Hanford	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	\$0.3	\$0.3	\$0.0	\$0.0
Site-Wide Services	\$2.4	\$2.4	\$1.9	\$0.0	\$0.5	\$222.2	\$222.2	\$210.5	\$0.0	\$11.7
Subtotal	\$2.6	\$2.6	\$2.1	\$0.0	\$0.5	\$235.6	\$235.6	\$226.8	\$0.0	\$8.8

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

BASELINE PERFORMANCE VARIANCE

Current Month (CM) Cost Variance (CV) (+\$0.5M)

CM Site-Wide Services (SWS) (+\$0.5) – The positive CM CV is due to savings associated with the self-performance of Software Engineering Services.



Contract-to-Date (CTD) CV (+\$8.8M) – The CTD CV in these accounts is primarily due to the approved funding and Integrated Investment Portfolio (IIP) scope being divergent from the baseline. CTD CV will continue and expenditures will be in accordance with approved funding and MSA Integrated Investment Portfolio (IIP) scope.

RL-20 (-\$2.9M) – The baseline budget did not include Unclassified Cyber Security. Performance of this approved IIP work has resulted in an unfavorable CTD CV.

SWS (+\$11.7M) – The CTD CV in these accounts is primarily due to the approved funding, and IIP scope being divergent from the baseline. The CTD CV will continue, and expenditures will be in accordance with approved funding and IIP scope. Areas that are divergent from the current baseline include:

- IM Project Planning & Controls;
- IM Intranet & Collaboration;
- Information Technology Cross Functional Services;
- Information Systems;
- Business Management Systems;
- IM System Work Portal;
- Hanford Site Emergency Alerting System;
- Long-Term Storage;
- Major Collection Management;
- Inventory & Schedule Management;
- Information Resources and Content Management;
- Multi-Media Services; Geospatial; and
- Mail Services.

Note: IM is beginning to realize the cost savings associated with the self-performance of much of the IT scope.

MISSION SUPPORT ALLIANCE

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Portfolio Management

Steve Young, Vice President

Monthly Performance Report

December 2016



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INTRODUCTION

The Mission Support Alliance, LLC (MSA) Portfolio Management (PFM) organization delivers an integrated planning and information management approach that allows the U.S. Department of Energy (DOE), Richland Operations Office (RL) to make informed decisions on cleanup efforts. This approach aligns and integrates DOE and Hanford contractor planning and performance data and provides the information in meaningful outputs for analysis and action. Through this integration, MSA PFM provides technical support and expertise in project, portfolio, and enterprise management for continual optimization of the cleanup mission lifecycle and achievement of the Hanford End State Vision.

As such, the MSA PFM organization supports and performs: Lifecycle Planning; Fiscal Year (FY) Work Planning; Baseline Decision Management; Mission Support Planning; Budget Formulation Planning; Analytical Tool Development; Project Interface; and Analytics. MSA PFM provides analytical and unbiased recommendations to assist DOE cleanup and resource allocation decisions.

KEY ACCOMPLISHMENTS

Analytical Tools –PFM continued development of the first of a kind Scope Management Information System (SMIS). The vision and purpose of SMIS is to generate, retrieve, display, analyze, and save data based on various program baseline planning cases. This system will allow RL projects to define cleanup mission program scope into manageable portions and create a Performance Measurement Baseline (PMB) for the current and future Hanford site acquisitions. As part of SMIS, PFM has developed the new Baseline Change Request (BCR) upload process and application, which was released on December 8, 2016.

PFM also deployed a program to automatically create an integrated information file to be used by RL cost estimators. Prior to the development of this process, the file was created manually by obtaining data from many individual manually developed files. The new program completes the entire effort in less than two minutes with no errors.

Development of the RL Assistant Manager for River and Plateau Monthly Project Status Report updates is complete. The tool was released to the customer on December 12, 2016 for testing, with the plan for release in early January 2017.

In addition, responding to RL requests for enhancements, PFM released Version 1.1 of the Primavera P6¹ activity code management system. Modifications required code

¹ Primavera P6 is a scheduling tool, trademarked by Oracle Corporation of Redwood Shores, CA 94065

changes to P6 activity work breakdown structure quality check reports, and crosswalk maintenance.

Budget Formulation – In preparation for the FY 2019 budget formulation process cycle, PFM initiated an upgrade to the Rank Integrated Priority List (RIPL) application by adding two new fields to the Master Data (Priority, Change Request #). Additionally, PFM added a status field to the Milestone Lookup tab to better facilitate RL responses to the DOE Head Quarters EM data call.

Dashboards – The new Assistant Manager for Safety and Environment site was deployed to production on December 9, 2016. The improved site includes a new design, making utilization by staff much more simple. Document libraries and views were created to provide the desired ease of access. References to the existing dashboard were retired and now directs users to the new location.

Hanford Alignment Contract Board – PFM continues to be responsible for administering all actions associated with baseline management through the Hanford Contract Alignment Board (HCAB). Actions completed during the month of December are as follows:

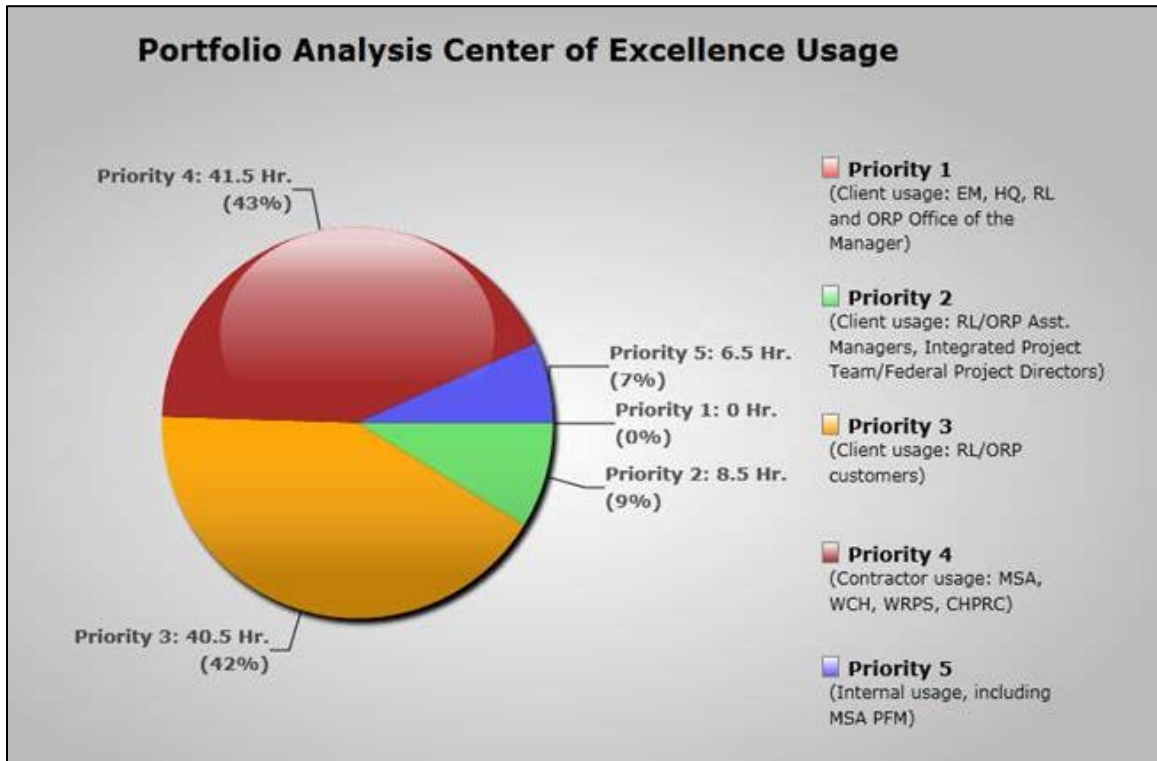
DSF(s) Under Development	Reviewed for Completeness	IST Review by Contract Managers	Scheduled IST Meeting(s)	DSF(s) reviewed by Board Members	Scheduled HCAB Meeting for Approval of DSF	DSFs Closed
2	6	0	0	0	0	1

DSF = Decision Summary Form

IST = Integrated Support Team

Integrated Technical Data-mart – Refinements were applied to database components for imports from the Hanford Geographic Information System, RIPL, and the GeoVisualization tool. These changes were made by PFM to promote better application maintainability while improving overall system performance.

Portfolio Analysis Center of Excellence (PACE) – Metrics for the PACE are provided in hours of usage via a dashboard. The Priority levels and the hours of usage for December are displayed in the chart below:



LOOK AHEAD

Lifecycle Report – PFM continued planning for development of the next Lifecycle Report, which is expected to be issued in 2018. DOE's Office of River Protection is developing a baseline case, incorporating the amended Consent Decree, which will be discussed with RL in January 2017. The status and suitability of using the baseline case for the next Lifecycle Report will be reviewed at the Lifecycle Report Project Managers Meeting scheduled for March 2, 2017.

MAJOR ISSUES

Nothing to report.

SAFETY PERFORMANCE

No Occupational Safety and Health Administration (OSHA) Recordable injury or First-Aid injury cases were reported for PFM in December 2016.

BASELINE PERFORMANCE:

Table PFM-1. Portfolio Management Cost/Schedule Performance (dollars in millions)

Fund Type	December 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
1000HQ – DOE-HQ Funding	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0
1000PD - Richland Program Direction	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.4	\$0.4	\$0.3	\$0.0	\$0.1
RL-0011 - Nuclear Mat Stab & Disp PFP	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0
RL-0030 - Soil & Water Rem-Grndwtr/Vadose	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.1	\$0.0	\$0.0
RL-0040 - Nuc Fac D&D Remainder Hanfrd	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.1	\$0.0	\$0.0	\$0.1
RL-0041 - Nuc. Fac. D&D RC Closure Proj	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.1	\$1.1	\$1.1	\$0.0	\$0.0
Site-Wide Services	\$0.5	\$0.5	\$0.3	\$0.0	\$0.2	\$52.0	\$52.0	\$46.8	\$0.0	\$5.2
Subtotal	\$0.5	\$0.5	\$0.3	\$0.0	\$0.2	\$53.8	\$53.8	\$48.4	\$0.0	\$5.4

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

BASELINE PERFORMANCE VARIANCE

Current Month Cost Variance (CV) (+\$0.2M) – The variance is primarily driven by PFM assigned staff providing unanticipated support to other MSA organizations, the effect of unanticipated personal time due to road and weather delayed involvement of an additional Information Technology support staff member and supporting subcontractors providing unanticipated support to groups outside of PFM.

Contract-to-Date (CTD) CV (+\$5.4M) – The positive CTD CV is primarily due to less PFM support required than assumed for integrated planning actions.

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President's Office

W. K. Johnson, President

R. E. Wilkinson, Chief Operations Officer

Monthly Performance Report

December 2016



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INTRODUCTION

The President's Office is comprised of site-wide services consisting of Quality Assurance (QA), Performance Oversight, Mission Support Alliance (MSA) Engineering, and External Affairs.

The QA and Performance Oversight organizations establish quality requirements for MSA and its subcontractors. Acquisition Verification Services (AVS) and QA provide audit and inspection services for the other Hanford contractors, and the Integrated Evaluation Plan for annual operational assessments. It also provides MSA management with the information to evaluate and improve all aspects of the organization through Corrective Action Management.

The MSA Engineering organization provides the technical and engineering skills necessary to plan, review and coordinate all engineering aspects of Mission Support Contract work. It produces consistent, high quality engineering products that enhance the reliability of the mission critical site infrastructure systems and facilities. Monthly project status updates from Engineering are included within the other Functional Organization reports. The MSA Engineering Organization also includes the MSA Maintenance Management Program (MMP)/ Reliability Engineering.

The MSA MMP provides reliable and cost-effective infrastructure and site services integral and necessary to accomplish the Hanford Site environmental clean-up mission. This service includes the MSA core value of creating a culture of safe and secure operations through the maintenance of Hanford Site's infrastructure assets and services in accordance with DOE O 430.1B, Chg. 2, Real Property Asset Management, and CRD O 430.1b, Chg. 1 (Supplemental Rev. 1). These MSA core values are met by applying availability, reliability and maintainability principles and practices to both the plant upgrade and Operation and Maintenance (O&M) Program phases of Hanford Infrastructure Assets.

The External Affairs department provides a myriad of communication functions for Department of Energy (DOE), Hanford Site contractors, employees, and the public. The group supports Richland Operations (RL), addressing specific contractual objectives, commitments and milestones, and manages the Hanford Speakers Bureau and Hanford Public Tour programs. The External Affairs function also facilitates community outreach on behalf of MSA and its employees.

KEY ACCOMPLISHMENTS

QUALITY ASSURANCE AND PERFORMANCE OVERSIGHT

December 2017	CHPRC Current Month Total	WRPS Current Month Total	Others	Total to date
Source Inspections		7		23
Annual Desk Reviews				0
Supplier Evaluations/Audits		1		9
First Article Inspection				0

Acquisition Verification Services (AVS) Activities – AVS activities for MSA in December were as follows:

December 2017	CHPRC Current Month Total	WRPS Current Month Total	Others	Total to date
Re-certifications	3	3	4	14
Annual Evaluations	1	2	5	20
Visual Acuity Evaluations			0	2

Acquisition Verification Services (AVS) Activities – MSA's AVS activities for the CH2M HILL Plateau Remediation Company (CHPRC) and Washington River Protection Solutions, LLC (WRPS) in December were as follows:

EXTERNAL AFFAIRS

Public Meeting Cancelled Due to Snowy Weather – Due to unexpected inclement weather, MSA Communications and External Affairs staff cancelled and rescheduled a public meeting for the DOE Office of River Protection (ORP). Actions included rescheduling with the public library facilities, posting a calendar notice, posting to social media and contacting local media to notify the public as quickly as possible of the last minute change.

Streamline of Resource Conservation and Recovery Act (RCRA) Processes – MSA, along with ORP, RL, Hanford contractors and the State of Washington, Department of Ecology (Ecology), worked to create a streamlined process and flowchart for RCRA permitting. Permitting efforts in the future can rely on the process as a guide or desk instruction to save time, money and to ensure no details are overlooked in a



complicated and important process to achieve permits. The team also reviewed the Tri-Party Agreement and Washington State laws.

Hanford Advisory Board (HAB) Meeting – MSA helped prepare the RL presentation for the Hanford Advisory Board (HAB) in December, which involved an annual review from RL, ORP, Ecology and the U.S. Environmental Protection Agency (EPA). The meetings also included an update from DOE Headquarters and discussion about resubmitting HAB advice to Congress to support the new presidential transition.

ENGINEERING

During December, Engineering staff created, and subsequently revised the document, *Analysis and Technical Basis of Backlog Target Metrics Fire Systems Preventive and Corrective Maintenance Activities*. This effort was to assist Hanford Fire Department maintenance personnel in their communications with other Hanford contractors on the topic of backlog metrics for fire systems.

Maintenance Management Plan (MMP) – Maintenance Management completed eight milestones, most notably a revision to Requirements Document MSC-RD-MN-10859, Maintenance Management, and the draft to plan document MSC-PLN-MN-56352, Maintenance Management Plan, which included milestone success criteria description sheets for Fiscal Year 2017, and an initial assessment of Safeguards and Security maintenance.

LOOK AHEAD

None to report.

MAJOR ISSUES

None to report.

SAFETY PERFORMANCE

In December there were no Occupational Safety and Health Administration (OSHA) Recordable injury and one First Aid Injury.



BASLINE PERFORMANCE

Table PO-1. President's Office Cost/Schedule Performance (dollars in millions).

Fund Type	December 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
Site-wide Services	\$1.0	\$1.0	\$0.7	\$0.0	\$0.3	\$72.6	\$72.6	\$61.6	\$0.0	\$11.0
Subtotal	\$1.0	\$1.0	\$0.7	\$0.0	\$0.3	\$72.6	\$72.6	\$61.6	\$0.0	\$11.0

ACWP = Actual Cost of Work Performed.

CV = Cost Variance.

BCWP = Budgeted Cost of Work Performed.

CTD = Contract-to-Date

BCWS = Budgeted Cost of Work Scheduled.

SV = Schedule Variance.

BASLINE PERFORMANCE VARIANCE

Current Month (CM) Cost Variance (CV) (+\$0.3M) – The favorable CM CV is primarily associated with the MSA Engineering Organization. The approved funding level and Integrated Investment Portfolio (IIP) are significantly less than the contract baseline.

Contract-to-Date (CTD) CV (+\$11.0M) – The favorable CTD CV is primarily attributable to MSA Engineering's approved funding, and IIP being divergent from the contract baseline. Through the annual IIP process, the MSA Engineering organization was authorized/funded to perform less work than had been planned in the baseline.

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Public Works

Todd Synoground, Vice President

Monthly Performance Report

December 2016



*Roads and Grounds Crew Removes
Snow and Ice from Hanford Roads*



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INTRODUCTION

The Mission Support Alliance, LLC (MSA) Public Works (PW) function provides a myriad of services to support a broad base of customers performing their respective Hanford Site missions. PW provides best-in-class operations and support services within a culture of safety, customer service and fiscal responsibility. PW services include: Electrical Utilities (EU), Water and Sewer Utilities (W&SU), B Reactor, Roads and Grounds, Biological Controls, Real Estate Services (RES), and Compliance & Risk Mitigation/Operations Communications. PW's goal is to provide cost-effective and timely services that are centered on customer needs in support of the Hanford environmental cleanup objectives.

KEY ACCOMPLISHMENTS

Snow Removal Activities – Throughout December, in an effort to maintain the Hanford Site roads in the safest condition possible, MSA Roads and Grounds crews applied 12,000 gallons of liquid de-icer, in excess of 2,000 tons of granular salt, and provided snow removal activities. For more than 20 days, snow removal activities included plowing roads, parking lots, and sidewalks. Because of adverse weather conditions, Roads and Grounds crews also replaced approximate 50 signs that had been damaged/broken due to snow removal activities and accidents due to adverse weather conditions.



*Snowplows/sanders
ready for adverse weather*



*Granular material
loaded into snowplows*

Relocation of U.S. Department of Energy (DOE) Personnel – In December, MSA completed the move of DOE Richland Operations Office (RL) personnel from the Federal Building in Richland (WA) to the second floor of the 2430 Building in the Stevens Center Complex. The relocation of RL personnel to the first floor of the 2430 Building is scheduled to be completed by January 31, 2017. For several months in advance, the Real Estate Services (RES) organization had worked with RL to plan and execute the move. Additionally, building modifications are underway for the relocation of other RL personnel to 2420 Stevens Center Complex as well.

Cold Weather Substation Checks – As temperatures dropped across the Hanford Site, Electrical Utilities (EU) staff began weekly cold-weather substation checks, adding an additional 60 weekly actions to normal operator rounds, including functional equipment checks. Colder weather can cause condensation to freeze, and equipment to react slowly. Without the persistent performance of cold weather checks, EU could have major substation equipment damage and mechanism breakdowns.



Performing cold-weather substation checks

EU Equipment Inspections – In December, EU staff completed infrared (IR) inspections on the Hanford 230kV Electrical Transmission System. Images collected will be reviewed to determine if any anomalies exist in the components. This technology allows system operators to detect heat signatures (precursors to equipment deterioration) within the operating equipment. This investigative process provides the transmission operator an early warning system to perform corrective maintenance and prolong the life of the transmission system.



Infrared inspection of electrical transmission system

Electrical Utilities Spots Repair During Line Inspections –During a preventive maintenance 13.8kV distribution line inspection, MSA EU personnel spotted a loose crossarm brace bolt in the 100 Area. A crew was notified, and made the repair a short time later. This type of maintenance is crucial in mitigating and preventing unplanned outages and system damage.



Repair of loose crossarm brace on electrical line



LOOK AHEAD

Railroad Repairs – The Hanford Atomic Metal Trades Council (HAMTC) had requested MSA allow their labor to perform railroad repairs work while a subcontractor supervised. On December 9, 2016, MSA Compliance & Risk Mitigation (C&RM) submitted a Work Turndown Request for the repairs, prompting a meeting with HAMTC Labor Representatives. Due to the nature of the work and the time constraints, this request could not be accommodated for the near term repairs. However, MSA Labor Relations and C&RM have agreed to revisit the use of MSA HAMTC labor for future repairs. Track repairs are expected to be complete by January 16, 2017.

New Land Owner Access Underway – DOE transferred ownership of over 1600 acres of land to the local Community Reuse Organization, Tri-City Industrial Development Council (TRIDEC). Post land transfer activities continue. To improve access to the transferred property and provide relief from DOE/Hanford security requirements, MSA RES will be coordinating efforts to designate the land as “General Access.”

MAJOR ISSUES

Nothing to report

SAFETY PERFORMANCE

During the month of December, there were no Occupational Safety and Health Administration (OSHA) Recordable injuries reported within PW. There was one minor first aid case reported after an employee slipped on ice and received a head injury. There were no vehicle accidents reported.

BASELINE PERFORMANCE

Table PW-1. PW Cost/Schedule Performance (dollars in millions).

Fund Type	December 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0040 - Nuc. Fac. D&D - Remainder Hanf	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6.1	\$6.1	\$6.3	\$0.0	(\$0.2)
RL-0041 - Nuc. Fac. D&D - RC Closure Proj	\$0.1	\$0.1	\$0.2	\$0.0	(\$0.1)	\$18.7	\$18.6	\$18.1	(\$0.1)	\$0.5
RL-0044 - B Reactor	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.1	\$0.0	(\$0.1)
RL-0100 - Richland Comm & Reg Supt	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.3	\$0.0	(\$0.3)
Site-Wide Services	\$2.6	\$2.6	\$3.9	\$0.0	(\$1.3)	\$259.6	\$259.6	\$306.2	\$0.0	(\$46.6)
Subtotal	\$2.7	\$2.7	\$4.1	\$0.0	(\$1.4)	\$284.4	\$284.3	\$331.0	(\$0.1)	(\$46.7)

ACWP = Actual Cost of Work Performed

BCWP = Budgeted Cost of Work Performed

BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance

CTD = Contract-to-Date

SV = Schedule Variance

BASELINE PERFORMANCE VARIANCE

Current Month (CM) Schedule Variance (SV) – (\$0.0M)

CM Cost Variance (CV) (-\$1.4M):

RL-40 CM CV (+\$0.0M)

RL-41 CM CV (-\$0.1M) – B-Reactor Oversight, Services, and Tours have higher than planned costs because the tour season has been extended beyond the baseline plan.

SWS CM CV (-\$1.3M) – Increased staffing levels for maintenance activities were required to keep 3001.04.04 W&SU (-\$0.8M), and 3001.04.03 EU (-\$0.6M) operational; the result is a negative CM CV. These systems have degraded across the site due to age. W&SU and EU are a part of the Enhanced Maintenance Program, and have compliance issues that have increased the cost to the program. Costs associated with system degradation have caused W&SU and EU to be significantly divergent from the baseline. Additional SWS variances exist in 3001.02.05 Waste Sampling and Characterization Facility Analytical Services (Readiness to Serve) (+\$0.1M); and 3001.04.14 Condition Assessment Surveys (+\$0.1M).

Contract-to-Date (CTD) SV (-\$0.1M) is within threshold.

CTD CV (-\$46.7M) – Variances exist in RL-40, RL-41, RL-44, and RL-100 that total (-\$0.1M) but are individually below threshold. Key drivers to the remaining CTD CV in other areas:

SWS CTD CV (-\$46.6M) Variances included:

3001.04.03 EU is significantly divergent from the baseline. The CTD CV (-\$23.5M) is primarily due to repairs relating to an aging infrastructure and upgraded staffing requirements. In addition, more material procurements were made due to new requirements that were not included in the baseline. These new requirements included the disposal of Power/Telecommunications lines to the Environmental Restoration Disposal Facility, a trailer mounted load center, bushings to replace the A-9 Transformer (needed for an unplanned outage), spare parts from a vendor who went out of business, an infrared camera, and an analyzer. In addition, the baseline was not adequate for a number of maintenance items that needed to be replaced due to the aging life of the infrastructure on the Hanford site. An Enhanced Maintenance Program has been established to better predict future system failures and Predictive Maintenance is replacing the Preventative Maintenance methodology. Expenditures will remain within approved funding and IIP scope.

3001.04.04 Water & Sewer Utilities – W&SU is significantly divergent from the baseline. The CTD CV (-\$32.8M) is principally due to extensive infrastructure repairs and implementation of the Preventive Maintenance Program. Also, staffing levels are currently higher than the baseline due to the maintenance activities required to maintain the water and sewer distribution system. The system has degraded across the site due to age. W&SU is also part of the Enhanced Maintenance Program, and has compliance issues that have increased the cost to the program. Expenditures will remain within approved funding and IIP scope.

Other significant SWS CTD CV variances related to being divergent from the baseline are tied to the 3001.02.05 Waste Sampling and Characterization Facility (+\$3.9M); 3001.04.01 Roads & Grounds (+\$1.9M); 3001.04.02 Biological Services (-\$1.0M); 3001.04.10.01 Sanitary Waste Management and Disposal (+\$1.0M); 3001.04.10.02 Laundry Services (-\$0.7M); 3001.04.10.03 Traffic Management (+\$1.1M); 3001.04.10.04 Site Infrastructure and Logistics Program Management (-\$1.5M); 3001.04.10.06 Public Works Program Planning Management and Administration (-\$1.0M); 3001.04.14 Land and Facilities Management (+\$5.3M); and 3001.06.04 NEPA Natural Gas Pipeline (+\$0.6M).



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Site Services & Interface Management

P.K. Brockman, Vice President

Monthly Performance Report December 2016



*Repair of broken water
line in 200 West area*



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INTRODUCTION

The Mission Support Alliance, LLC (MSA) and Site Services & Interface Management (SS&IM) function provides numerous services to support a broad base of customers performing their respective Hanford Site missions. SS&IM provides operations, support, and maintenance services within a culture of safety, customer service, and fiscal responsibility. SS&IM services include: Interface Management/Customer Service; Crane & Rigging; Fleet Services; Motor Carrier Services; Maintenance Services; and Projects/Strategic Planning. SS&IM's goal is to provide effective and timely services that are centered on customer needs in support of the Hanford environmental cleanup objectives.

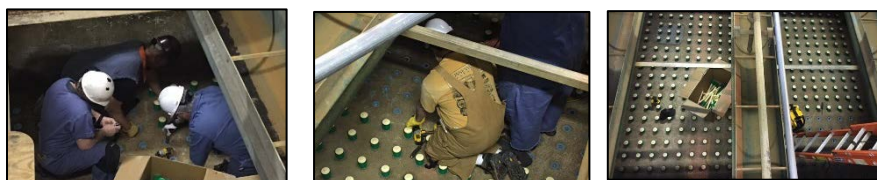
KEY ACCOMPLISHMENTS

Broken Water Line Excavation and Repair – On December 22, 2016, Maintenance Services and Motor Carrier Services crews completed excavation of a broken water line for Mobile Office (MO) 720 and MO721. Crews were able to restore potable water service to the facility after repairs were completed on December 27, 2016. This was a high priority job for the CH2M HILL Plateau Remediation Company.



Excavation/Repair of broken water line

Installation of Filter Bed Nozzles – On December 22, 2016, Maintenance Services staff, with support from MSA's Crane & Rigging and Water Utilities crews, completed the installation of nozzles in filter beds #3 and #4 at the 283 West Water Treatment Plant. Water Utilities workers were then able to initiate backwashing activities on the newly installed nozzles. This was a high-priority project for Water Utilities that allowed for the rebuilding of filter beds without significantly impacting operations.



Nozzles installed in Filter Beds #3 and #4



Support to Washington River Protection Solutions (WRPS) with Excess Air Bottles –

On December 5, 2016, MSA Interface Management attended a self-contained breathing apparatus (SCBA) meeting with WRPS and the Hanford Fire Department (HFD). The contract was discussed with the vendor that provides the SCBA bottles, as well as WRPS's need for a cost estimate of MSA's support for screening the bottles. WRPS's upcoming tank AY-102 retrieval project was also discussed, and the HFD reassured WRPS that they would be able to meet the supplied air needs for that work.

LOOK AHEAD

Service Catalog Activities – Development is almost complete and testing has begun on the next version of the MSA Service Catalog. The new version of the catalog is scheduled to move into production on January 18, 2017.

Lighting Upgrades at 222-S Laboratory – In response to inquiries from WRPS regarding the status of the lighting plan for 222-S Laboratory facility area, and because the system is out of compliance with U. S. Department of Transportation roadway lighting standards, MSA Electrical Utilities elected to upgrade the street lighting. Additionally, the lighting is old – regulated output 2400V lighting – which MSA is in the process of removing site-wide. MSA Engineering is currently preparing a Facility Modification Package (FMP) to upgrade the perimeter fence/street lighting, and will also prepare an FMP for the campus lighting on the north side of the road as well.

MAJOR ISSUES

None to report.

SAFETY PERFORMANCE

During the month of December, there were no Occupational Safety and Health Administration (OSHA) Recordable injuries reported within SS&IM. There were five minor first-aid cases reported: an employee experienced back pain while performing a work task; an employee smashed a finger with a wood block; a drill slipped and went through an employee's finger; an employee felt shoulder pain while pulling a wrench; and an employee slipped on ice and injured a knee. In addition, there were two non-injury vehicle accidents reported: one, when a vehicle was backed into a parked vehicle, and a second, when a vehicle struck a guide wire. Damage in both instances was minor.

SITE SERVICES & INTERFACE MANAGEMENT



BASELINE PERFORMANCE

Table SS&IM-1. Site Services & Interface Management Cost/Schedule Performance (dollars in millions).

Fund Type	December 2016					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
ORP-0014 - Rad Lqd Tk Wst Stab & Disp Ops	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$14.5	\$14.5	\$12.8	\$0.0	\$1.7
RL-0020 - Safeguards & Security	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$1.3	\$1.3	\$1.6	\$0.0	(\$0.3)
RL-0040 - Nuc Fac D&D - Remainder Hanford	\$1.4	\$1.5	\$0.9	\$0.1	\$0.6	\$58.9	\$58.4	\$60.3	(\$0.5)	(\$1.9)
Site-wide Services	\$0.2	\$0.2	\$0.1	\$0.0	\$0.1	\$40.3	\$40.3	\$44.2	\$0.0	(\$3.9)
Subtotal	\$1.6	\$1.7	\$1.0	\$0.1	\$0.7	\$115.0	\$114.5	\$118.9	(\$0.5)	(\$4.4)

ACWP = Actual Cost of Work Performed
 BCWP = Budgeted Cost of Work Performed
 BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance
 CTD = Contract-to-Date
 SV = Schedule Variance

Note: This cost and performance data reflects Site-Wide Services scope and Reliability Projects for SS&IM reported under the Performance Measurement Baseline (PMB). A portion of the organization's monthly work scope and listed accomplishments are handled under the Non-PMB via the Usage Based Services (UBS) and Direct Labor Adder (DLA) funding sources (for example, waterline breaks and non-Reliability Project maintenance activities). Although the work scope and accomplishments listed are completed with the SS&IM labor force and management team, the final costs of these UBS and DLA pools reside with the end customer and are reported in the non-PMB.

BASELINE PERFORMANCE VARIANCE

Current Month (CM) Schedule Variance (SV) (-\$0.1M)

ORP-0014 CM SV (\$0.0M) – The SV for December is within threshold.

RL-0020 CM SV (\$0.0M) – The SV for December is within threshold.

RL-0040 CM SV (+\$0.1M) – The positive SV for December is within threshold.

Site-wide Services (SWS) CM SV (\$0.0M) – The SWS SV for December is within threshold.

Contract-to-Date (CTD) SV (-\$0.5M)

ORP-0014 CTD SV (\$0.0M) – The CTD SV is within threshold.

RL-0020 CTD SV (\$0.0M) – The CTD SV is within threshold.

RL-0040 CTD SV (-\$0.5M) – CTD schedule variances exist in several RL-40 Reliability Projects which are individually below threshold.

SWS CTD SV (\$0.0M) – The CTD SV is within threshold.

CM Cost Variance (CV) (+\$0.7M)

ORP-0014 CM CV (\$0.0M) – The CV is within threshold.

RL-0020 CM CV (\$0.0M) – The CV is within threshold.

RL-0040 CM CV (+\$0.6M) – Project L-840, *24in EW Line Replacement 2901Y - 200W*, CM CV is due to the re-vegetation activity costing less than planned. (+\$0.1M); Project L-525, *24in EW Line Replacement 2901Y – 200E*, CM CV is due to the re-vegetation activity costing less than planned. (+\$0.1M); Project L-761, *Phase 2a Procure, Install, & Closeout*, CM CV is due primarily to loaning project craft resources to other projects, thereby significantly reducing labor costs during mobilization. Also, actual costs were not incurred for the planned hiring for a Work Package Planner, Field Supervisor, electricians and instrument technicians. In addition, mobile craft resources break trailers were not procured as temporary housing. (+\$0.3M). Variances totaling (+\$0.1M) exist in other RL-40 Reliability Projects which are individually below threshold.

Site-wide Services (SWS) CM CV (+\$0.1M) – The favorable CM CV is a result of impacted operating costs due to the performance of an approved and funded Integrated Investment Portfolio (IIP) work scope that is divergent from the contract baseline. Expenditures will remain in accordance with approved funding and IIP scope.

CTD CV (-\$4.4M)

ORP-0014 CTD CV (+\$1.7M) – Project L-858, *200E 13.8kV ED Dsgn & Bse Svc Ld Reconfig*, CTD CV is due to reduced cost as a result of early completion of preliminary conceptual design activities. High quality conceptual design allowed for an abbreviated version of Definitive & Final Design allowing for early award of the Engineering Design Contract. Ecological and cultural reviews took much less effort than planned, because the construction is in a previously disturbed area, and qualified under the Tank Farms Environmental Impact Statement. In addition, the construction subcontractor's bid came back significantly lower than planned (+\$1.2M). Variances for other ORP-14 projects total (+\$0.5M), and are individually below threshold.

RL-0020 CTD CV (-\$0.3M) – The CTD CV is within threshold.

RL-0040 CTD CV (-\$1.9M) – The CTD CV is primarily due to Project L-830, *Filter Plant Filter Control System Upgrade*, design requiring additional funding to resolve comments provided at initial 90% design submittal, additional in-house engineering required to complete material procurement, Operations Test Procedures and Acceptance Test Procedures, increased work package planning cost, and construction cost not anticipated, (scaffolding, rigging, outage costs, confined space efficiencies, and extensive work planning efforts). Construction costs have increased due to insufficient design details, work package planning, and unavailable materials. (-\$0.7); The Studies, Estimates and Planning account is also overrun. (-\$0.5M);

Also, several prior year Infrastructure Reliability Projects are overrun:

- Project L-691, *Construct Sewer Lagoon in 200W* (-\$3.0M)
- Project L-506, *Upgrade RTUs & SLAN – CE* (-\$1.4M)
- Project L-683, *251W Facility Mods for Dispatch Center* (-\$1.5M); Reliability Project Spares Inventory Change (-\$2.3M)
- Project ET-51, *HLAN Network Upgrade - Ph. 2* (-\$1.1M)
- Project L-713, *Records Storage Facility* (-\$2.2M)
- Project ET60, *Enterprise Voiceover Internet Protocol (VoIP) Solution, Implementation* (-\$2.5M)
- EU System CENRTC (-\$1.0M)
- Water/Sewer Systems CENRTC. (-\$0.6M)
- Transportation Systems CENRTC. (-\$0.6M)

These unfavorable prior year CTD CV amounts are offset by the following current project favorable CVs:

- Project L-525, *24in Line Replacement from 2901Y to 200E*, due to a modest savings for site clearing work due to favorable site conditions and the award of the construction subcontract for significantly less than the initial estimate. (+\$1.6M)
- Project L-840, *24in Line Replacement from 2901Y to 200W* due to a modest savings for site clearing work due to favorable site conditions and the award of the construction subcontract for significantly less than the baseline estimate. The significant construction cost savings is attributable to the contractor's enhanced expertise in this type of construction and significantly less difficult site conditions currently being encountered than was assumed when preparing the initial cost estimate. (+\$1.6M)

- Project L-761, *Phase 2a Procure, Install, & Closeout*, due primarily to loaning project craft resources to other projects thereby significantly reducing labor costs during mobilization. Also, actual costs were not incurred for the planned hiring of a Work Package Planner, Field Supervisor, etc. There was an additional cost savings (\$100k) resulting from canceling the purchase of mobile craft resources break trailers, because alternate accommodations had been identified and the acquisition/installation of the office and change trailers has not been completed, so no costs (approx. \$168k) have been incurred. (\$0.8K)

In addition, are the following prior year project positive CVs:

- Project L-449, *Mortar Line 12-in Water Line – Baltimore* (+\$0.9M)
- Project L-399, *T-Plant Potable & Raw Water Line* (+\$1.5M)
- Project L-677, *200E/W Raw Water Modifications* (+\$0.8M)
- Project L-311, *200W Raw Water Reservoir Refurbish* (+\$4.0M)
- Project L-742, *Rt3/Rt4S Turn Lane & Rt. 4S Turn-Outs* (+\$0.5M)
- Project L-753, *Maintenance Shelters for Crane & Rigging* (+\$1.1M)
- Project L-712, *CCCF and Communications Upgrades* (+\$0.7M)
- HFD CENRTC (+\$2.8M).

Variances for other RL-40 projects are individually below threshold.

SWS CTD CV (-\$3.9M) – The CTD CV is due to the deltas between the contract baseline and the approved and funded integrated infrastructure planning of items for MSA FY 2013 – FY 2017 work scope. These items include increased support required for Interface Management including the Service Catalog scope and additional support from others (e.g., Safety Staff, Environmental Personnel, etc.) in the Project Management Account.

The logo for the Mission Support Alliance (MSA) is located in the top right corner of the header. It features a circular emblem with a blue and gold design, surrounded by the text "MISSION SUPPORT ALLIANCE". Below the emblem is a gold banner with the letters "MSA" in black.

MISSION SUPPORT ALLIANCE

"WE WILL MEASURE OUR SUCCESS BY OUR CUSTOMERS' SUCCESS"

Training & Conduct of Operations

Steve Metzger, Vice President

Monthly Performance Report December 2016



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INTRODUCTION

The Mission Support Alliance, LLC (MSA) Training and Conduct of Operations (T&CO) organization is responsible for the management of MSA training activities, programmatic implementation of the Conduct of Operations (CONOPS) principles, and management of the Volpentest Hazardous Materials Management and Emergency Response (HAMMER) Federal Training Center.

The MSA Central Training function is responsible for implementing a training management system to meet the technical, organizational, and professional development training requirements of personnel. This function also meets training related regulations and directives specified in the Mission Support Contract with the U.S. Department of Energy (DOE).

CONOPS evaluates MSA organization processes and procedures for appropriate implementation of DOE Order 422.1, *CONOPS Elements and Requirements*. This function also assesses and verifies implementation of CONOPS at MSA-managed projects and facilities.

The MSA Work Management program incorporates the principles of Integrated Safety Management and Environmental Management System at the activity level through the development and use of technical Work Documents.

KEY ACCOMPLISHMENTS

FORMALITY OF OPERATIONS

Formality of Operations Observations – Formality of Operations staff observed various meetings of a number of MSC organizations, including Electrical Utilities (EU), Water & Sewer Utilities (W&SU), Fire System Maintenance, Crane and Rigging, and Fleet. Meetings and observations included return to work, pre-job and post job gatherings, a review of operations at the Dispatch Center, observation of the emergency response and protective measures taken in response to a water leak, a ride-along with a Fleet fuel truck, and an MSA Emergency Preparedness drill in the 200 West Area. In addition, Walk-Throughs were conducted through various maintenance services work areas (e.g. the Sign Shop), and at the HAMMER facilities.

HAMMER ACTIVITIES

Mid-Term Planning Meeting – On December 6-8, 2016, HAMMER staff attended the Gotham Shield 2017 (GS 17) Mid-Term Planning Meeting held in FEMA Region II. The GS 17 meeting engaged a focused group of planning partners from key departments,

agencies, states, and municipalities discussing exercise organization and staffing concepts, scenario and timeline development, scheduling, logistics, and administrative requirements.

HAMMER staff will have a key role in designing the energy impacts for this exercise to ensure that Emergency Support Function #12 (ESF #12) participants will have realistic effects to engage local, state, and Federal energy sector partners.

Emergency Support Function #12 (ESF #12) Support – HAMMER staff are providing program development for the (ESF #12) response program. The development and approval of a project plan for implementing program requirements and improvements are scheduled for January 2017.

DOE Training Institute (DTI) Updates – On December 5-8, 2016, DTI-HAMMER staff traveled to Albuquerque, New Mexico to participate in the Energy Facility Contractors (EFCOG) Training Working Group held at the National Training Center (NTC). The meetings provided the opportunity for DOE contractors to give updates and identify tools to improve the quality of contractor training and better understand issues affecting worker safety and health training in the enterprise. Additionally, confidence was expressed by the various DOE sites in regard to the technical capabilities of HAMMER workers, lessons learned, and expertise. Participants shared information regarding other activities they were performing and requested that future meetings include demonstrations of Hanford training automation tools developed by HAMMER's information technicians.

HAMMER Staff Attends Transportation Rail Incident Preparedness and Response

(TRIPR) Workshop - Throughout the month of December, enrollment for the Hazardous Material Regulations online modules, created by HAMMER for the U.S. Department of Transportation's Pipeline Hazardous Materials Safety Administration (PHMSA) Office of Hazardous Material Safety (OHMS), continued to climb. From July 11, 2016, through December 2016, total enrollments for the 10 modules reached 56,000.



TRIPR workshop participants

SCBA Trials – The self-contained breathing apparatus (SCBA) Phase 2 field trials were completed at HAMMER in early December. This effort, supported by several HAMMER worker-trainers and staff, successfully evaluated and identified new SCBA equipment for Site use. The equipment for Phase 2 was chosen after a series of factory representative presentations and a vendor fair at HAMMER in which each manufacturer had an opportunity to display their products and answer questions from those in attendance.



SCBA Equipment

The next steps in this process will include a final report and recommendations outlining the equipment to be purchased and taken into Phase 3 testing, actual in-field trials, and usage. HAMMER is preparing for the Phase 3 in-field trials by organizing training materials, qualifying worker-trainers, and working with Washington River Protection Solutions (WRPS) representatives to determine the training schedule for the workers who will use the equipment during the field trials.

Notable Guests at HAMMER - On December 7, 2016, HAMMER provided a tour for a group of International United Association of Journeyman and Apprentices of the Plumbing, Pipe Fitting Industry of the United States, Canada, Australia, and Ireland United Association (UA) personnel. The tour covered an overview of HAMMER's background and partnerships, training programs, external programs, as well as a fall protection demonstration. Then, on December 8, 2016, HAMMER staff escorted the same group on a tour of the Hanford Site's B Reactor.

LOOK AHEAD

Preparations for Airlock Entry — In December, HAMMER prepared an area in its Field Exercise Building for the 324 Hot Cell Airlock Entry Mock-Up in support of the CH2M Hill Plateau Remediation Company (CHPRC). Site workers will use this area to begin personal protective equipment (PPE) strategy sessions in preparation for the highly complicated airlock entry.

The 324 Airlock entry is the first phase of the project to clean and remove legacy material from the airlock. The breathing air compressor at HAMMER's Field Exercise

building will be recertified for use in early January, and PPE strategies will be developed using level B encapsulating suits and respiratory air line systems.

HAMMER and CHPRC staff are collaborating to provide training to the entry teams. The actual airlock entry is expected to take place later in the spring.

MAJOR ISSUES

Contaminated Item from Scrap Metal Yard Brought to HAMMER — On December 1, 2016, MSA Management was notified that a radioactive and contaminated metal bar was brought onto the HAMMER campus. An off-duty MSA employee picked up a metal bar from a local scrap metal facility and brought it to HAMMER to identify its dose rate. Using a calibrated dose rate and contamination meter, a HAMMER Radiological Control Technician (RCT) determined the metal bar was radioactive and had removable contamination exceeding the limits of the MSA Radiological Control Manual. Initially, it was unclear if the metal bar was from the Hanford Site. Subsequent investigation revealed the contamination on the metal bar was Radium-226, and did not originate from the Hanford Site; most likely it was a commercial product. The event was declared an occurrence and categorized as a Group 6, Subgroup B, (3), SC-3. Further investigations are proceeding.

SAFETY PERFORMANCE

There were no Occupational Safety and Health Administration (OSHA) injury cases reported by T&CO during December.

BASELINE PERFORMANCE

Table T&CO-1. T&CO Cost/Schedule Performance (dollars in millions).

Fund Type	December 2016					Contract to Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0040 - Nuc. Fac. D&D - Remainder Hanford	\$0.3	\$0.3	\$0.5	\$0.0	(\$0.2)	\$44.5	\$44.5	\$52.6	\$0.0	(\$8.1)
Site-Wide Services	\$0.1	\$0.1	\$0.2	\$0.0	(\$0.1)	\$9.4	\$9.4	\$12.9	\$0.0	(\$3.5)
Subtotal	\$0.4	\$0.4	\$0.7	\$0.0	(\$0.3)	\$53.9	\$53.9	\$65.5	\$0.0	(\$11.6)

ACWP = Actual Cost of Work Performed
 BCWP = Budgeted Cost of Work Performed
 BCWS = Budgeted Cost of Work Scheduled

CV = Cost Variance
 CTD = Contract-to-Date
 SV = Schedule Variance



BASELINE PERFORMANCE VARIANCE

RL-40 – Current Month (CM) Cost Variance (CV) (-\$0.2M) – The unfavorable CM CV is similar to the detail listed in the Contract to Date (CTD) CV explanation. The assumption that less DOE Office of Environmental Management (EM) funding would be required because HAMMER could self-fund itself by performing enough services for non-Hanford entities has not occurred. As a result, the monthly EM budget will remain lower than the EM funds authorized. Because of this divergent situation, an unfavorable CV occurs monthly. Services delivered at HAMMER will not be adversely affected because the services are executed consistent with the approved Integrated Investment Portfolio (IIP) scope.

CTD CV (-\$8.1M) – The unfavorable CTD CV is largely due to the assumption that less DOE Office of EM funding would be required because HAMMER could self-fund itself by performing enough services for non-Hanford entities. This assumption has not occurred. As a result of this inaccurate assumption, the EM budget will remain lower than the EM funds authorized. Because of this divergent situation, the CTD CV will continue to increase. Services delivered at HAMMER will not be adversely affected because the services are executed consistent with the approved IIP scope. No other potential contributing performance issues are currently identified.

Site Wide Services (SWS) – Current Month CV (-\$0.1M) – CM CV is due to the approved funding and IIP scope being divergent from the baseline in the Work Management Accounts within T&CO. The variance will continue and expenditures will be in accordance with approved funding and IIP scope.

CTD CV (-\$3.5M) – CTD CV is due to the approved funding and IIP scope being divergent from the baseline in the Work Management Accounts within T&CO. The variance will continue and expenditures will be in accordance with approved funding and IIP scope.



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