

MISSION SUPPORT ALLIANCE

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



Monthly Performance Report April 2017

W. K. Johnson
President

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



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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
HR	Human Resources
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

ACRONYMS LISTING



MSC	Mission Support Contract
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
WRPS	Washington River Protection Solutions, LLC



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 April 2017.

Key Accomplishments

Cost Savings through Strategic Agreements – MSA continues to support the National Nuclear Safety Administration and Environmental Management Supply Chain Management Center in utilization of Strategic Agreements. Through the first quarter Fiscal Year (FY) 2017, MSA realized \$2.9M in cost savings associated with Government Strategic Sourcing agreements against a goal of \$1.2M, and an additional \$1.9M in other savings for a total of \$4.8M in documented savings.

2017 Safety Connect – The 2017 Safety Connect was held April 18 – 19, 2017 at the Trade Recreation and Agricultural Center Facility in Pasco, Washington. This year's very successful event was an expansion of the annual Health & Safety EXPO, emphasizing Science, Technology, Engineering and Math principles, with extra focus on the "science of safety." Approximately 20,000 people attended the two-day event, including approximately 2,000 students. RL, MSA and CH2M Hill Plateau Remediation Company (CHPRC) collaborated efforts and provided a transportation and shipping of radioactive material scenario that was demonstrated in the arena.

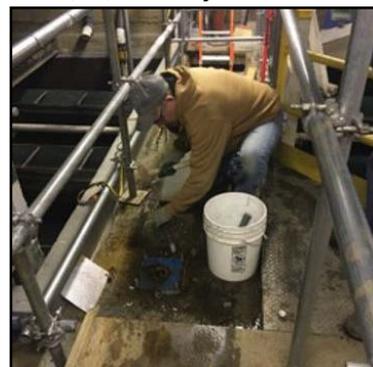
Support to Hanford Live 2017 – MSA helped organize, facilitate and execute Hanford Live 2017 – an Online Conversation about Cleanup, Progress and Challenges, a webinar public outreach event. The event drew in more than 200 registrants, 1,500 Facebook participants, and questions from participants nationwide (including some from Japan and the United Kingdom). In lieu of a public meeting, April's format involved a broadcast with presentations from the Hanford agency managers, followed by questions and answers from the public via social media.

Fleet Equipment Request and Planning Integration – During April, MSA Business Operations and MSA Site Services & Interface Management collaborated to develop an integrated fleet vehicle/equipment request and planning integration document. The purpose of the document is to clarify: 1) the different planning/budget request products and requirements, that are submitted to DOE and the Office of Management & Budget

(OMB); 2) ensure integration between the different planning products; 3) clarify the DOE and the OMB recipients; and 4) identify deliverable due dates. Process improvements were identified during development of the process document and communicated to RL.

283W Filter Beds – On April 8, 2017, Maintenance Services, working with MSA Water Utilities, Crane & Rigging, and Safety & Health, completed additional work on the mechanical equipment for filter beds 1 and 2 at the 283 West (W) facility. Work scope included the removal and disposal of the old actuators,

cleaning and lubrication of the sliding waste gates on gullets #1 and #2, and installation of electric actuators. Once the work was completed, filter beds 1 and 2 were filled and tested,



Electric actuators installed in 283W Filter Beds

with no identified defects.

Removal of Electrical Lines – On April 13, 2017, Electrical Utilities (EU) completed one of its most significant FY 2017 tasks, restoration of a section of the pristine 100 Area Columbia River corridor by removing 11½ miles of 13.8kV distribution aerial lines. Conductors, cross arms, and associated hardware were removed from over 300 poles, and will either be grouted in large containers or shipped to the Environmental Restoration Disposal Facility for disposal. The poles will be removed after this year's fire season, and after additional ecological and cultural reviews have been completed. Power to two air monitors, two weather stations, a street light at the intersection of Routes 1 and 2, and electrical service to the 100F and 100H facilities were also removed. Temporary power was established for cocooned reactors F and H. The completion of this task will improve reliability and reduce maintenance, as well as mitigate other risks including outages, fire hazards, lightning strikes, and equipment failure.



Removal of 11 ½ miles of electrical distribution aerial lines

Transformers Modified – Following a recent engineering analysis at Washington River Protection Solutions’ 241-U Tank Farm, the decision was made to downsize three pole-mounted transformers from 300kVA to 75kVA. The task, completed on April 21, 2017, modernized the poletop service by adding a new fiberglass cross arm, hardware, bushing covers, arrestors, and cutouts, thereby extending the equipment life by as much as 30 years. EU also upgraded the components, including the transformer riser wire aged by weather



Electrical pole before and after upgrades

and wind fatigue, mitigating potential outage and arc-flash risks. Additionally, the distance between the overhead lines and the transformers was increased to provide safer access for future maintenance. Downsizing these transformers has the added benefit of reducing the Site carbon footprint.

Self-Contained Breathing Apparatus (SCBA) Activity – Hanford Fire Department Support Services personnel filled over 8,000 SCBA bottles in support of Tank Farm activities for the month of April. This was a significant increase and record setting support: average monthly bottle fills have been 5,000 to 6,000 per month.

Replacement of Cathodic Protection System (CPS) – The big silver water tanks located in 200 East and 200 West provide a vital service that is required for various uses across Hanford’s Central Plateau. These two 1.1 million-gallon water tanks provide drinking water. They also serve as water storage for fire suppression systems and process water for other Hanford contractor facilities. Water and Sewer Utilities operates these tanks and conducts periodic inspections on the tank’s access points along with the CPS. CPS is in place to protect the physical integrity of the tank and its



Broken insulator support on 1.1 million-gallon water tank

components. A recent inspection helped discover a broken insulator, which was promptly repaired. Such activities supports routine surveillance and correction activities to ensure cleanup deadlines are met by contactors not only in the 200 Areas, but potentially across the Hanford Site.

EMTRAX Upgrade – In early April, MSA received a request from RL to implement an RL-specific version of the EMTRAX budget execution tool (previously hosted at the Oak Ridge, TN site) by May 1, 2017. The automated tool allows budget analysts to manage and track budgets at the lower level control points for New Obligational Authority, prior year recovered funding and beginning uncosted. The budget tool also provides the analysts with the capability to see at any given time where the funding has been authorized, how much is left and, what is left in reserve. Portfolio Management, given the lead within MSA, reconfigured the application so that it could function locally within the Hanford Local Area Network environment as a standalone system. Customer acceptance of the upgraded RL-specific software was received on April 28, 2017, and the software was deployed to the production environment as required on May 1, 2017.

Voluntary Protection Program (VPP) – Community Outreach – On April 11, 2017, MSA pipefitters teamed with CHPRC bargaining unit workers by volunteering to participate in the “After School Matters” Program at an elementary school in Kennewick, Washington. The workers talked about their professions and the hazards they face, and allowed the children to experience hands-on activities. This

CHPRC/MSA effort demonstrated and integrated the VPP tenets for both the students and the presenters themselves. The presentations exposed the students to health and safety fundamentals on and off the job, including worksite analysis, hazard prevention and control, and training. Building the interactive displays relies on management leadership and employee involvement; while the craft took the lead in the presentations, there was also a team of administrative, engineering and management staff working with them.

Signs for Department of Energy – On April 13, 2017, Maintenance Services Sign Painters fabricated high-priority signs for RL. The signs, which reflected recent moves by RL personnel, were installed at the Stevens Center complex. The signs were completed prior to a visit by the Acting Assistant Secretary of the DOE Office of Environmental Management.



Signs for Department of Energy

Onboarding Standardization – Human Resources Labor Relations Department staff participated in the Tripartite Meeting with Central Washington Building Trades (CWBT) and other Hanford Site contractors to discuss ways to standardize the onboarding process for construction workforce. Specifically addressed were standardizing the drug and alcohol testing process, and the potential establishment of a random drug and alcohol program. Additionally, they participated in the monthly interface meeting with the CWBT and other Hanford Site Contractors to discuss issues related to the employment of the construction workforce at Hanford.

High Capacity Trend Continues – Volpentest Hazardous Materials Management and Emergency Response Training and Education Center (HAMMER) experienced another month with over 5,000 student days of training. HAMMER staff recorded 5,151 student days and 312 class sessions in April 2017, surpassing April 2016 by 16.8 percent in student days and 9.1 percent in class sessions.

48th Chemical Brigade Training – On April 22-29, 2017, HAMMER hosted approximately 200 soldiers of the 20th Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Command's 48th Chemical Brigade, headquartered in Fort Hood,

Texas. The brigade deployed to HAMMER to conduct a portion of the joint nation chemical, biological, radiological and nuclear exercise, DRAGON FIRE. The U.S. soldiers were joined by a contingent of German Bundeswehr ('Federal Army') CBRN Command soldiers from Bruchsal, Baden-Wurttemberg for this exercise. DRAGON FIRE exercised key elements of the units' missions: reconnaissance, identification, and decontamination. The soldiers utilized HAMMER's Training Tower, Burn Building, Field Exercise Building, Search and Rescue Building, Hazardous Materials Pad, and several open areas. HAMMER staff provided oversight of the activity to ensure the safety of not only the soldiers, but also the Hanford students on campus. Approximately 50 brigade soldiers will return to HAMMER May 7-10, 2017 to complete their radiological training exercise utilizing the bomb pit.



Training exercise at HAMMER

Facilities Modification Package (FMP) – MSA's Content and Records Management team completed work on the FMP (i.e., engineering package) workflow. The workflow was a joint venture of MSA and CHPRC Engineering to improve and automate the existing paper-based FMP process. The new FMP workflow increases functionality by adding the ability to revise or cancel an existing FMP package. The cradle-to-grave electronic automation for the FMP process supports both the MSA and CHPRC movement to electronic records.

Elimination of Beryllium Sampling for 480V Switchgear and Molded Case Breakers – After reviewing data collected for beryllium sampling of Electrical Distribution Equipment (EDE), the Chronic Beryllium Disease Prevention Program committee recommended that sufficient data had been collected for 120-volt molded case breakers, and 480-volt and lower rated switchgear, to eliminate further sampling of such equipment. The committee prepared and approved a Resolution Form that modifies DOE-0342-005, the *Hanford Site Evaluation of Electrical Equipment Procedure*, eliminating the requirement to sample the molded case breakers and switchgear unless a worker has a concern about a specific piece of equipment. As the overwhelming majority of EDE has been in the 480 volt or less rating, the elimination of this requirement will result in significant cost savings.

Road Maintenance – The winter of 2016-2017 impacted the Hanford site roads with increased degradation in the form of pot holes and edge breakage. Since October, crews have been addressing the primary routes of travel as the number one priority, utilizing



27 tons of asphalt patch material. To date, more than 150 potholes and numerous edges of the roads have been patched. Funding has also been allotted for a second team to assist in performing crack sealing in both the 200 West and East areas. One crew will be working in the 200 West area, and a second crew will begin work in the 200 East area once the asphalt pothole repairs have been addressed. Thirty-six total lane miles of sealing will be completed in this year's campaign.

Annual Protective Action Drills – Emergency Management Program staff successfully developed and conducted a protective action drill on behalf of RL for Hanford Site employees located in the 100, 200 East, and 200 West Areas on April 20, 2017. The drill provided personnel the opportunity to demonstrate take cover actions.



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	\$131.2	\$315.1
HSPD (RL11,12,13,30)	Homeland Security Presidential Directive 12	\$1,143.8	\$-	\$1,143.8	\$1,143.8	\$987.8	\$156.0
RL-0020	Safeguards & Security	\$70,619.3	\$6,739.4	\$77,358.7	\$43,133.1	\$35,812.3	\$7,320.8
RL-0040	Reliability Projects/HAMMER/ Inventory	\$54,189.7	\$799.8	\$54,989.5	\$21,894.8	\$11,642.6	\$10,252.2
RL-0041	B Reactor	\$6,094.9	\$42.7	\$6,137.6	\$5,242.5	\$1,306.2	\$3,936.3
SWS	Site-Wide Services	\$209,884.4	\$14,920.1	\$224,804.5	\$122,677.5	\$98,995.2	\$23,682.3
Total		\$342,082.6	\$22,797.7	\$364,880.3	\$194,538.0	\$148,875.3	\$45,662.7

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 593, dated May 9, 2017

The remaining uncosted carryover balance will fund SWS through May 31, 2017 and RL20 through May 30, 2017.



3.0 SAFETY PERFORMANCE

During the month of April, MSA experienced one injury that was classified as both Recordable and Days Away, Restricted or Transferred (DART). As a result, the fiscal year 2017 total recordable case (TRC) now stands at 0.50 and the DART rate is 0.41. These injury rates are below the EM performance goals of 1.1 and 0.60, respectively.

It is recognized that MSA's injury rates have typically increased during the third quarter of the fiscal year. As a precaution, a review of historical data was performed to identify common injuries that occur during the upcoming seasonal change. Safety communications have been tailored to address seasonal hazards and identify proactive measures for accident prevention. Procurement of appropriate personal protective equipment has been initiated, and will be provided as required. Activities that support 2017 MSA Safety Improvement Plan actions for improving attention to hazard identification and mitigation were initiated, and will continue during the next few months.



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

FY17 = 0.50 CY17 = 0.45

Objective

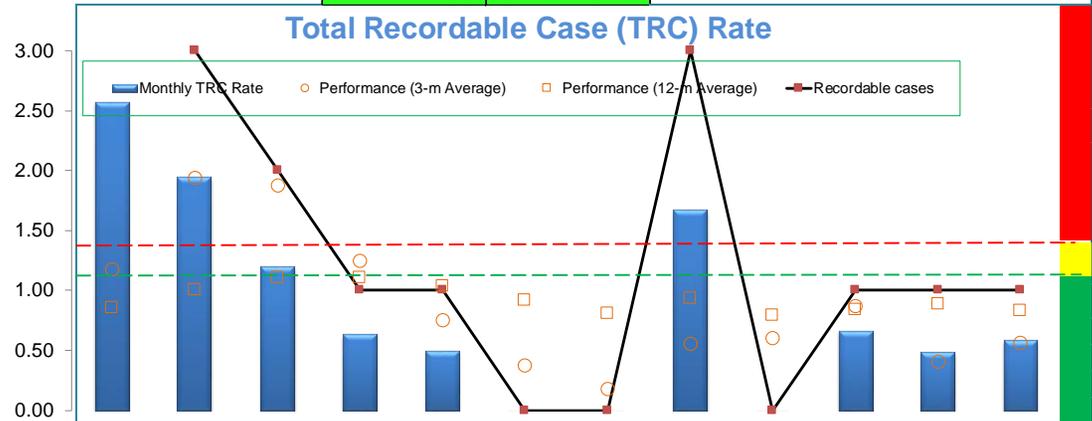
To monitor the Total Recordable Case (TRC) rate for MSA employees and subcontractors (Note: does not include independent subcontractors)

Measure

The TRC 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	> 1.3
Declining	1.1 - 1.3
Meets	< 1.1



Performance Data

	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17
Monthly Recordable Cases	4	3	2	1	1	0	0	3	0	1	1	1
Monthly TRC Rate	2.57	1.94	1.19	0.63	0.49	0.00	0.00	1.67	0.00	0.66	0.48	0.58
Performance (3-m Average)	1.17	1.94	1.88	1.24	0.75	0.37	0.18	0.55	0.60	0.87	0.41	0.56
Performance (12-m Average)	0.85	1.01	1.11	1.10	1.04	0.92	0.80	0.93	0.79	0.84	0.89	0.83

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 TRC rate below 1.1.

Leading Indicator Description

TRC is a lagging indicator.

Performance Indicator Information

PI Owner:	Lanette Adams
Data Analyst:	Ron Wight
Data Source:	MSMET
PI Basis:	MSC-MP-003, Sect. 4.0
Date:	5/9/2017

Analysis

During the month of April, there was one injury classified as 'Recordable' and, due to the extent of the injury, days away, restricted or transferred (DART) was impacted. The injury occurred when a hand-held drill bound up and twisted, forcing the worker's hand into a nearby object.

- 2017 FYTD Recordable Cases: 6
- 2016 FY Recordable Cases: 20
- 2015 FY Recordable cases: 10

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

- 3 caused by a slip/trip/fall; 1 caused by body motion; 2 caused by struck against an object
- 6 different body parts have been affected: head; knee; ankle; tooth; leg; hand

Action

Injury Prevention Actions:

- A review of historical data was performed to identify common injuries that occur during the upcoming seasonal change. Safety communications have been focusing on the transition to warmer temperatures and environmental conditions typical for this time of year. Procurement of appropriate PPE has been initiated and will be provided, as required.
- All MSC employees were encouraged to participate in, and attend 'Safety Connect' to gain an increased knowledge of programs and services that are available to improve safety and health conditions both on the Hanford Site and within the community.
- During the April Presidents' Zero Accident Council (PZAC) meeting, MSA management briefed attendees on the recent hand injury which led to an open discussion on possible cause and preventive measures.

Additional Info

None

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

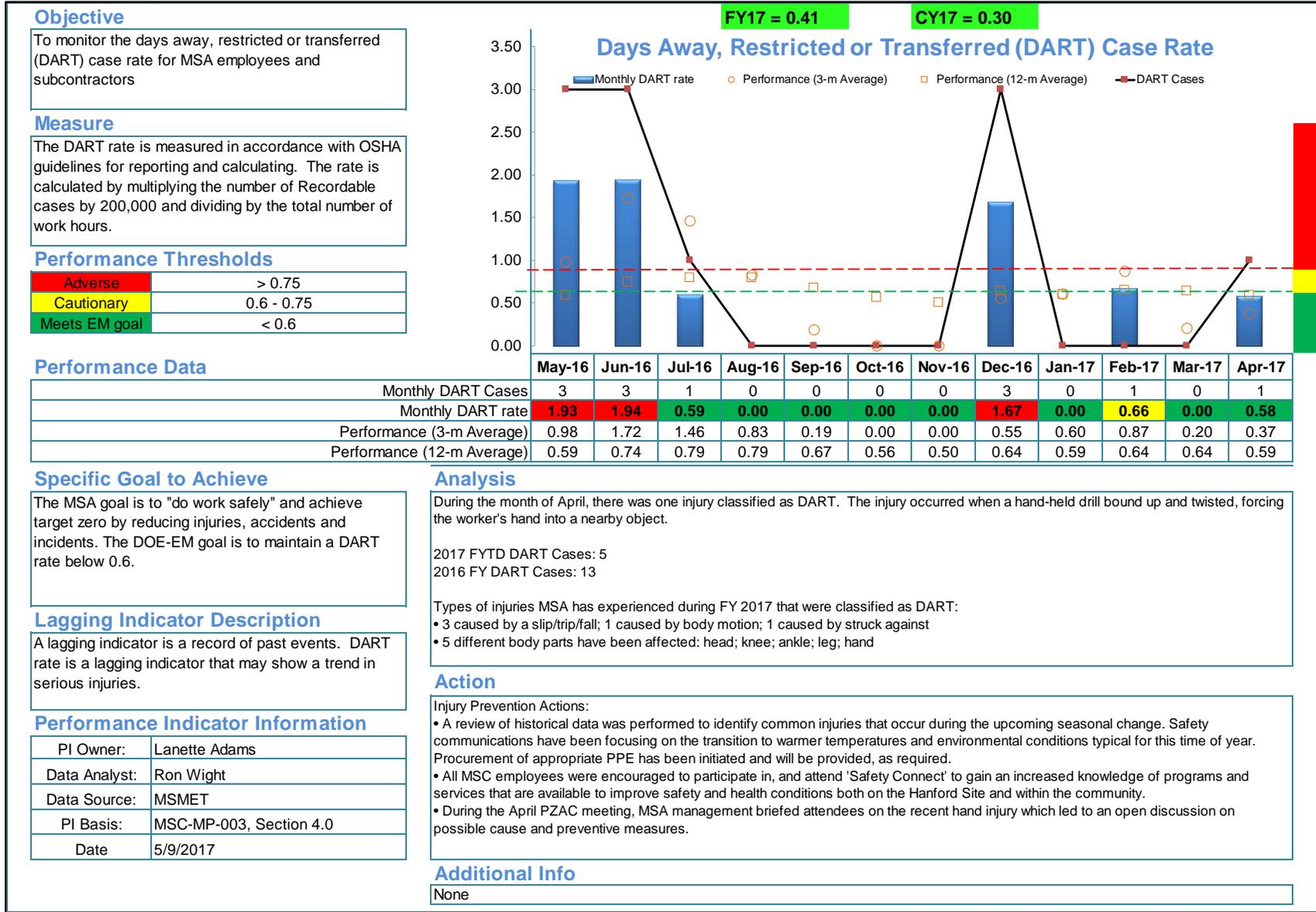




Table 3-3. First-Aid Case Rate

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

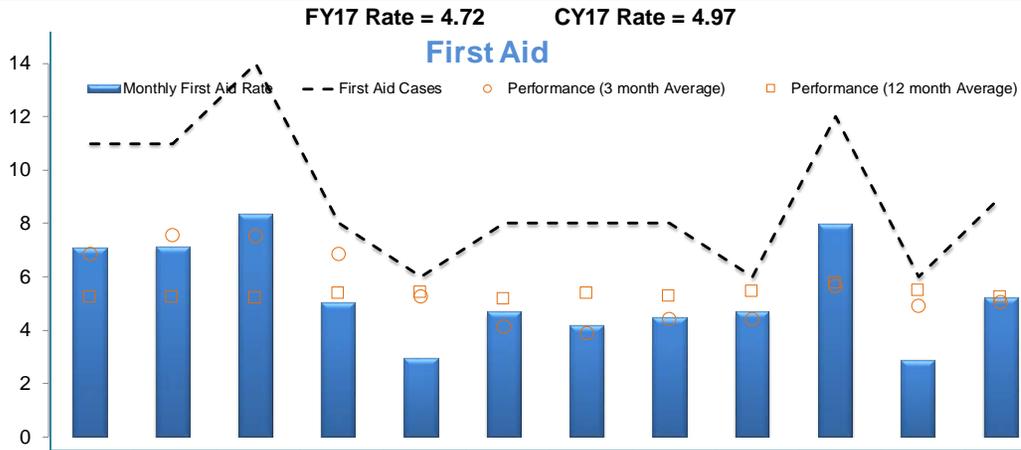
The metric is a count of the number of First Aid cases per month, and the rate of cases. The rate is calculated by multiplying the number of First Aid cases by 200,000 and dividing by the total number of work hours for a given period.

Performance Thresholds

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

Performance Data

	May-16	Jun-16	Jul-16	Aug-16	Sep-16	Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17
First Aid Cases	11	11	14	8	6	8	8	8	6	12	6	9
Monthly First Aid Rate	7.07	7.10	8.32	5.03	2.95	4.65	4.17	4.45	4.66	7.93	2.86	5.18
Performance (3 month Average)	6.85	7.55	7.52	6.84	5.28	4.12	3.88	4.42	4.40	5.66	4.90	5.05
Performance (12 month Average)	5.22	5.24	5.21	5.35	5.40	5.15	5.37	5.26	5.45	5.74	5.47	5.22



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	5/9/2017

Analysis

April concluded with nine First Aid injury cases. The injuries were the result of the following incidents: one automobile accident; two awkward body motion; two overexertion; three potential exposure (affected by carpet glue); and, one struck against an object. The body parts injured included: neck (1); wrist (1); elbow (1); back (1); knee (1); arm (1); hand (2); and, respiratory (3).

FY2017 First Aid Cases: 57

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

- 26% by a slip/trip/fall, 23% by body motion, 18% by overexertion, 7% from being struck by, 7% from contact with; and 7% from being struck against
- 46% arm/hand injuries; 28% leg/foot injuries; 11% head/neck injuries; and 9% back injuries

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

Actions

Injury Prevention Actions:

- A review of historical data was performed to identify common injuries that occur during the upcoming seasonal change. Safety communications have been focusing on the transition to warmer temperatures and environmental conditions typical for this time of year. Procurement of appropriate PPE has been initiated and will be provided, as required.
- All MSC employees were encouraged to participate in, and attend 'Safety Connect' to gain an increased knowledge of programs and services that are available to improve safety and health conditions both on the Hanford Site and within the community.
- Employees have been reminded to report all injuries and in a timely manner; first aid cases are analyzed for injury trends.

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 (2017/3/27)					
b. Location (Address and Zip Code) Richland, WA 99352		b. Number RL14728			b. Phase Operations			b. To (2017/4/23)					
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	\$3,459,374	\$0	\$210,283	\$3,669,657	\$3,809,569	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) Wickinson, Robert E Johnson, William RWS/25/17		b. TITLE MSC Project Manager					
a. BEST CASE		\$3,459,375				c. SIGNATURE <i>[Signature]</i>		d. DATE SIGNED 5/25/17					
b. WORST CASE		\$3,779,250											
c. MOST LIKELY		\$3,599,285		3,459,374		(139,911)							
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	13,477	13,477	4,784	0	8,693	442,714	442,714	449,718	0	(7,003)	552,152	564,116	(11,964)
3001.01.02 - Fire and Emergency Response	4,344	4,344	2,772	0	1,572	153,603	153,603	175,344	(0)	(21,741)	191,124	220,888	(29,764)
3001.01.03 - Emergency Management	451	451	298	0	153	41,733	41,733	34,617	0	7,116	53,553	45,909	7,644
3001.01.04 - HAMMER	1,089	1,089	782	0	308	46,407	46,407	55,580	(0)	(9,173)	52,400	64,392	(11,992)
3001.01.05 - Emergency Services Management	321	321	480	0	(160)	10,190	10,190	10,912	(0)	(723)	13,967	15,612	(1,645)
3001.02.01 - Site-Wide Safety Standards	93	93	96	0	(2)	4,961	4,961	6,443	(0)	(1,483)	5,681	7,566	(1,885)
3001.02.02 - Environmental Integration	1,007	1,007	480	0	526	49,007	49,007	44,415	0	4,592	57,935	54,577	3,358
3001.02.03 - Public Safety & Resource Protection	1,073	1,073	691	0	382	57,155	57,155	49,556	0	7,599	78,393	70,980	7,414
3001.02.04 - Radiological Site Services	1	1	51	0	(51)	3,833	3,833	4,827	0	(994)	3,847	5,090	(1,243)
3001.02.05 - WSCF Analytical Services	73	73	0	0	73	55,222	55,222	50,457	(0)	4,765	57,139	51,972	5,167
3001.03.01 - IM Project Planning & Controls	568	568	144	0	423	33,081	33,081	28,868	0	4,213	38,037	33,592	4,445
3001.03.02 - Information Systems	1,616	1,616	737	0	880	100,488	100,488	94,305	(0)	6,182	128,412	121,677	6,735
3001.03.03 - Infrastructure / Cyber Security	649	649	236	0	413	28,165	28,165	30,717	(0)	(2,551)	33,941	37,108	(3,167)
3001.03.04 - Content & Records Management	844	844	407	0	437	60,059	60,059	53,892	0	6,167	75,463	69,163	6,300
3001.03.05 - IR/CM Management	142	142	80	0	62	4,391	4,391	10,124	0	(5,733)	6,713	12,518	(5,805)
3001.03.06 - Information Support Services	369	369	129	0	240	14,043	14,043	10,683	0	3,360	18,239	14,754	3,485
3001.04.01 - Roads and Grounds Services	742	742	236	0	506	22,979	22,979	21,364	0	1,615	29,320	28,886	433
3001.04.02 - Biological Services	647	647	334	0	313	27,285	27,285	27,966	0	(681)	34,591	35,985	(1,394)
3001.04.03 - Electrical Services	1,388	1,388	1,411	0	(23)	55,777	55,777	81,110	0	(25,333)	69,061	100,431	(31,370)
3001.04.04 - Water/Sewer Services	1,454	1,454	1,333	0	121	51,262	51,262	86,155	(0)	(34,893)	66,351	107,743	(41,392)
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	27	0	(27)	7,974	7,974	9,897	(0)	(1,923)	7,974	10,050	(2,076)



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 (2017/3/27)									
Mission Support Alliance		Mission Support Contract			Mission Support Contract													
b. Location (Address and Zip Code)		b. Number			b. Phase				b. To (2017/4/23)									
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		Variance		Actual Cost Work Performed (9)	Budgeted		Estimated (13)	Variance (14)				
	Work Scheduled (2)	Work Performed (3)		Schedule (5)	Cost (6)	Work Scheduled (7)	Work Performed (8)	Schedule (10)	Cost (11)		(12)	(13)						
a. WORK BREAKDOWN STRUCTURE ELEMENT (Cont'd)																		
3001.04.07 - Fleet Services	173	173	1	0	172	7,565	7,565	7,323	0	242	8,860	8,346	514					
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	18	0	(18)	370	370	462	(0)	(92)	370	486	(117)					
3001.04.10 - Technical Services	772	772	425	0	348	34,244	34,244	36,248	0	(2,004)	40,887	44,316	(3,429)					
3001.04.11 - Energy Management	659	659	128	0	532	15,520	15,520	8,223	(0)	7,297	22,273	14,481	7,791					
3001.04.12 - Hanford Historic Buildings Preservation	119	140	186	20	(47)	19,400	19,359	19,398	(41)	(38)	22,153	22,746	(593)					
3001.04.13 - Work Management	274	274	146	0	128	9,701	9,701	13,275	(0)	(3,573)	11,932	15,862	(3,930)					
3001.04.14 - Land and Facilities Management	1,459	1,459	424	0	1,035	39,679	39,679	33,285	(0)	6,394	53,213	46,921	6,293					
3001.04.15 - Mail & Courier	110	110	53	0	58	8,171	8,171	5,623	(0)	2,548	10,840	8,035	2,805					
3001.04.16 - Property Systems/Acquisitons	1,255	1,255	455	0	800	43,553	43,553	43,679	0	(126)	55,823	56,409	(586)					
3001.04.17 - General Supplies Inventory	11	11	(64)	0	75	2,259	2,259	1,153	0	1,107	2,548	1,458	1,090					
3001.04.18 - Maintenance Management Program Implem	494	494	105	0	389	8,323	8,323	8,093	0	230	12,710	12,665	44					
3001.06.01 - Business Operations	935	935	415	0	519	38,194	38,194	5,271	0	32,922	45,840	14,705	31,135					
3001.06.02 - Human Resources	584	584	193	0	391	18,940	18,940	18,000	(0)	940	24,397	23,594	803					
3001.06.03 - Safety, Health & Quality	2,624	2,624	1,438	0	1,186	116,495	116,495	135,524	(0)	(19,029)	142,955	165,017	(22,062)					
3001.06.04 - Miscellaneous Support	1,772	1,772	519	0	1,253	54,112	54,112	40,188	(0)	13,924	70,285	56,397	13,888					
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	1,576	1,576	293	0	1,282	56,750	56,750	49,484	(0)	7,266	69,710	62,012	7,698					
3001.08.01 - Water System	956	1,262	981	306	281	23,021	23,641	12,667	619	10,973	27,498	16,631	10,867					
3001.08.02 - Sewer System	53	140	96	87	45	7,076	7,052	10,068	(24)	(3,016)	17,048	20,061	(3,014)					
3001.08.03 - Electrical System	31	74	44	44	31	15,429	15,446	16,455	17	(1,009)	16,932	17,975	(1,043)					
3001.08.04 - Roads and Grounds	21	10	20	(10)	(9)	4,050	4,032	3,345	(19)	687	9,803	9,207	596					
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	355	353	433	(2)	(79)	6,114	6,113	8,113	(2)	(2,000)	8,046	10,612	(2,566)					
3001.08.07 - Reliability Project Spare Parts Inventory	0	0	6	0	(6)	86	86	2,674	0	(2,588)	86	2,826	(2,741)					
3001.08.08 - Network & Telecommunications System	0	15	275	15	(260)	11,203	11,175	16,191	(28)	(5,016)	11,203	16,315	(5,112)					
3001.08.09 - Capital Equipment Not Related to Constructi	2,105	0	1	(2,105)	(1)	11,154	9,049	8,845	(2,105)	204	11,154	10,965	189					
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	83,276	79,475	3,801					
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																		
e. SUBTOTAL (Performance Measurement Baseline)																		
	46,686	45,041	22,096	(1,645)	22,945	1,846,235	1,844,653	1,866,226	(1,582)	(21,573)	2,378,630	2,436,215	(57,584)					

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 Mission Support Alliance		a. Name Mission Support Contract				a. Name Mission Support Contract				a. From (2017/3/27)							
b. Location (Address and Zip Code) Richland, WA 99352		b. Number RL14728				b. Phase Operations				b. To (2017/4/23)							
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	2,227	2,227	1,491	0	736	105,567	105,567	107,219	0	(1,652)	122,794	127,644	(4,850)				
3001.02.04 - Radiological Site Services	1,008	1,008	674	0	335	61,082	61,082	43,339	0	17,743	87,635	67,894	19,741				
3001.02.05 - WSCF Analytical Services	950	950	0	0	950	87,987	87,987	53,176	0	34,811	113,653	73,593	40,060				
3001.03.02 - Information Systems	393	393	197	0	196	3,232	3,232	2,786	0	446	8,247	7,919	328				
3001.03.04 - Content & Records Management	149	149	67	0	82	1,059	1,059	938	0	121	2,759	2,604	155				
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	3,435	3,435	3,298	0	137	27,367	27,367	27,571	0	(204)	88,701	89,447	(745)				
3001.04.05 - Facility Services	1,500	1,500	986	0	514	51,008	51,008	57,414	0	(6,407)	65,316	73,673	(8,358)				
3001.04.06 - Transportation	302	302	466	0	(163)	20,830	20,830	36,367	0	(15,537)	24,733	42,955	(18,223)				
3001.04.07 - Fleet Services	1,485	1,485	1,336	0	149	87,474	87,474	106,369	0	(18,895)	103,884	126,638	(22,754)				
3001.04.08 - Crane and Rigging	2,319	2,319	1,105	0	1,214	87,144	87,144	92,334	0	(5,190)	107,654	114,831	(7,177)				
3001.04.10 - Technical Services	5	5	220	0	(216)	32	32	2,255	0	(2,223)	149	3,775	(3,626)				
3001.04.13 - Work Management	0	0	37	0	(37)	595	595	3,014	0	(2,419)	595	3,320	(2,726)				
3001.04.14 - Land and Facilities Management	1,019	1,019	719	0	300	50,844	50,844	50,086	0	759	65,955	65,724	230				
3001.04.15 - Mail & Courier	50	50	17	0	33	1,177	1,177	1,180	0	(3)	1,624	1,638	(13)				
3001.06.01 - Business Operations	1,542	1,542	825	0	717	83,135	83,135	86,977	0	(3,842)	102,429	107,638	(5,209)				
3001.06.02 - Human Resources	352	352	275	0	77	16,797	16,797	22,328	0	(5,531)	20,434	26,980	(6,546)				
3001.06.03 - Safety, Health & Quality	499	499	150	0	349	13,460	13,460	10,572	0	2,889	17,521	14,855	2,666				
3001.06.04 - Miscellaneous Support	165	165	149	0	16	9,548	9,548	11,875	0	(2,327)	11,399	14,311	(2,912)				
3001.06.05 - Presidents Office (G&A nonPMB)	404	404	228	0	176	24,550	24,550	20,014	0	4,537	32,127	27,466	4,661				
3001.06.06 - Strategy	65	65	13	0	52	2,938	2,938	2,497	0	441	3,502	3,047	455				
3001.A1.01 - Transfer - CHPRC	9,554	9,554	5,761	0	3,793	610,862	610,862	536,936	0	73,926	755,037	680,186	74,851				
3001.A1.02 - Transfer - WRPS	1,753	1,753	4,068	0	(2,315)	124,169	124,169	202,419	0	(78,250)	153,032	247,346	(94,315)				
3001.A1.03 - Transfers - FH Closeout	1	1	(0)	0	1	177	177	228	0	(51)	184	257	(73)				
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	15	0	(15)	1,188	1,188	2,882	0	(1,694)	1,188	2,948	(1,760)				
3001.A2.02 - Non Transfer - AMH	16	16	0	0	16	1,623	1,623	954	0	669	1,924	1,191	733				
3001.A2.03 - Non Transfer - ATL	15	15	0	0	15	1,146	1,146	702	0	444	1,541	1,013	528				
3001.A2.04 - Non-Transfer - WCH	507	507	16	0	492	41,341	41,341	41,584	0	(244)	48,813	47,460	1,353				
3001.A2.05 - Non-Transfers - HPM	0	0	48	0	(48)	3	3	1,900	0	(1,897)	3	2,181	(2,178)				
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	26	0	(26)	0	0	445	0	(445)	0	582	(582)				
3001.A4.01 - Request for Services	562	562	534	0	28	70,105	70,105	97,715	0	(27,611)	78,693	107,774	(29,081)				
3001.A4.02 - HAMMER RFSS	3	3	408	0	(405)	7,076	7,076	29,382	0	(22,307)	7,149	31,985	(24,835)				
3001.A4.03 - National Guard RFSS	0	0	0	0	0	1,602	1,602	1,550	0	52	1,605	1,552	53				
3001.A4.04 - PNNL RFSS	19	19	36	0	(17)	6,917	6,917	10,153	0	(3,236)	7,322	10,689	(3,367)				
3001.A5.01 - RL PD	212	212	88	0	124	3,346	3,346	5,599	0	(2,253)	4,734	7,289	(2,555)				
3001.A5.02 - ORP PD	0	0	57	0	(57)	37	37	6,836	0	(6,799)	37	7,134	(7,097)				





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 (2017/3/27)								
b. Location (Address and Zip Code)		b. Number		d. Share Ratio		b. Phase		b. To (2017/4/23)										
c. TYPE		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	46	46	543	0	(497)	888	888	4,591	0	(3,703)	2,081	7,185	(5,103)					
3001.A5.04 - ORP Project Funded	0	0	118	0	(118)	0	0	2,330	0	(2,330)	0	3,039	(3,039)					
3001.A6.01 - Portfolio PMTOs	0	0	0	0	0	210	210	161	0	49	210	161	49					
3001.A7.01 - G&A Liquidations	(3,059)	(3,059)	(2,154)	0	(905)	(151,487)	(151,487)	(158,841)	0	7,353	(189,028)	(200,231)	11,204					
3001.A7.02 - DLA Liquidations	(2,342)	(2,342)	(1,617)	0	(725)	(76,252)	(76,252)	(96,742)	0	20,490	(101,056)	(126,348)	25,292					
3001.A7.03 - Variable Pools Revenue	(12,491)	(12,491)	(7,985)	0	(4,506)	(513,438)	(513,438)	(487,702)	0	(25,736)	(696,863)	(673,729)	(23,134)					
3001.B1.01 - UBS Assessments for Other Providers	2	2	0	0	2	124	124	0	0	124	184	0	184					
3001.B1.02 - UBS Other MSC - HAMMER M&O	10	10	0	0	10	567	567	0	0	567	843	0	843					
3001.B1.03 - Assessment for Other Provided Services	106	106	0	0	106	5,798	5,798	0	0	5,798	8,612	0	8,612					
3001.B1.04 - Assessment for PRC Services to MSC	58	58	0	0	58	3,417	3,417	0	0	3,417	4,977	0	4,977					
3001.B1.07 - Request for Services	1	1	0	0	1	248	248	0	0	248	274	0	274					
a2. WORK BREAKDOWN STRUCTURE ELEMENT																		
b2. COST OF MONEY																		
c2. GENERAL AND ADMINISTRATIVE																		
d2. UNDISTRIBUTED BUDGET																		
e2. SUBTOTAL (Non - Performance Measurement)	12,842	12,842	12,215	0	627	880,233	880,233	945,452	0	(65,219)	1,077,346	1,159,673	(82,326)					
f. MANAGEMENT RESERVE											3,398	3,398	0					
g. TOTAL	59,528	57,883	34,311	(1,645)	23,572	2,726,468	2,724,886	2,811,678	(1,582)	(86,793)	3,459,375	3,599,285	(139,911)					
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															FORM APPROVED				
FORMAT 3 - BASELINE															OMB No. 0704-0188				
DOLLARS IN Thousands																			
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 (2017/3/27)				
b. Location (Address and Zip Code) Richland, WA 99352					b. Number RL14728					b. Phase Operations					b. To (2017/4/23)				
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 \$604,408			c. CURRENT NEGOTIATED COST (a+b) \$3,459,374			d. ESTIMATED COST OF UNAUTHORIZED UNPRICED WORK \$0				e. CONTRACT BUDGET BASE (C+D) \$3,459,374		f. TOTAL ALLOCATED BUDGET \$3,459,374		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)																
			Six Month Forecast By Month												UNDISTRIBUTED BUDGET (15)	TOTAL BUDGET (16)			
			May FY17 (4)	Jun FY17 (5)	Jul FY17 (6)	Aug FY17 (7)	Sep FY17 (8)	Oct FY18 (9)	Nov FY18 (10)	Dec FY18 (11)	Jan FY18 (12)	Remaining FY18 (13)	FY19 (14)						
a. PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)	1,799,549	19,139	17,277	22,873	17,459	17,927	30,275	14,961	17,589	19,116	13,248	223,487	135,954	0	2,348,854				
b. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD	46,686	(19,139)	1,183	(4)	(35)	23	(224)	(523)	(206)	112	(221)	2,205	(82)	0	29,775				
a. PERFORMANCE MEASUREMENT BASELINE (End of Period)	1,846,235		18,460	22,870	17,424	17,950	30,051	14,438	17,383	19,228	13,027	225,692	135,872	0	2,378,630				



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 (2017/3/27)					
b. Location (Address and Zip Code) Richland, WA 99352			b. Number RL14728				b. Phase Operations				b. To (2017/4/23)					
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						Nov FY18 (10)	Dec FY18 (11)	Jan FY18 (12)	Remaining FY18 (13)	FY19 (14)			
			May FY17 (4)	Jun FY17 (5)	Jul FY17 (6)	Aug FY17 (7)	Sep FY17 (8)	Oct FY18 (9)								
a2. NON - PERFORMANCE MEASUREMENT BASELINE (Beginning of Period)	867,391	8,274	7,566	9,035	6,779	7,290	10,802	6,486	7,466	8,287	5,472	65,123	62,608	0	1,072,580	
b2. BASELINE CHANGES AUTHORIZED DURING REPORT PERIOD	12,842	(8,274)	199	0	0	0	0	0	0	0	0	0	0	0	4,767	
a2. NON - PERFORMANCE MEASUREMENT BASELINE (End of Period)	880,233		7,765	9,035	6,779	7,290	10,802	6,486	7,466	8,287	5,472	65,123	62,608	0	1,077,346	
7. MANAGEMENT RESERVE															3,398	
8. TOTAL	2,726,468	0	26,224	31,905	24,204	25,240	40,854	20,924	24,849	27,516	18,499	290,815	198,480	0	3,459,374	



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 (2017/3/27)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2017/4/23)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

Explanation of Variance /Description of Problem:

Current Month Cost Variance (CV):

The favorable CM CV is due to the incorporation of contract modifications 587 and 588 into the contract baseline. Modification 587 definitized the FY 2016 Labor Adder Cost Variance Proposal and modification 588 definitized the FY 2016 Pension Cost Variance Proposal for a total contract value increase of \$29.3M in the CM.

Impacts – Current Month Cost Variance:

None, a favorable CV is due to the incorporation of contract modifications 588 and 587 as a point adjustment during April 2017. The cost for these contract modifications was incurred during FY 2016.

Corrective Action – Current Month Cost Variance: None

Current Month Schedule Variance:

3001.08.01 Water System – Favorable CM SV is due to efficiencies during construction execution in both subcontractor performance and project support for project L-868 “Raw Water Fire Protection Loop for LAWPS”. Efficiencies include contractor owned equipment allowing multiple construction activities to be performed concurrently, contractor resource availability allowing for crew sizes substantially larger than anticipated, and optimal soil conditions during excavations because of minimal pit runs and no black sand encountered.

3001.08.02 Sewer System – Favorable CM SV is due to projects L-853 “200E Sewer Flow Equalization Facility” and L-854 “200E Sewer Consolidations”, subcontractor scheduling efficiencies.

3001.08.09 Capital Equipment Not Related to Construction – Unfavorable CM SV is due to project EC04 to procure a 150 Ton Crane for the Crane & Rigging department. The procurement was planned to occur in April but due to inventory unavailability, the procurement is now planned for September 2017.

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.



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 (2017/3/27)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2017/4/23)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

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.

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 2016, which increased the contract value. The FY 2016 pension and labor adder proposal was negotiated and incorporated in April 2017. At the request of RL, the labor and pension proposals are submitted annually at fiscal year-end. The FY 2017 variances associated with labor and pension will continue to grow during the FY.

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.



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 (2017/3/27)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2017/4/23)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

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.

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.

3001.03.02 Information Systems: Favorable CTD CV is due to continued savings from self-performance of Software Engineering Services.

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 were 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 high performance buildings & sustainability, executive order 13514, site sustainability, and recycling services areas approved funding and IIP scope being divergent from the baseline. No mitigating actions are required at this time.

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



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 (2017/3/27)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2017/4/23)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

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.

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

3001.08.08 Network & Telecommunications: Unfavorable CTD CV is primarily due to approved funding authorizations for the HLAN Phase 2 Network expansion, Records Storage Facility, and Enterprise VoIP Solution Implementation scope that was divergent from the baseline.

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 substantially 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 favorable variance.

3001.08.09 Capital Equipment Not Related to Construction – Unfavorable CM SV is due to project EC04 to procure a 150 Ton Crane for the Crane & Rigging department. The procurement was planned to occur in April but due to unavailability in inventory, the procurement is now planned for September 2017.

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.



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 (2017/3/27)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2017/4/23)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

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:

3001.08.01 Water System – Favorable CTD SV is due to efficiencies during construction execution in both subcontractor performance and project support for project L-868 Raw Water Fire Protection Loop for LAWPS. Efficiencies include contractor owned equipment allowing multiple construction activities to be performed concurrently, contractor resource availability allowing for crew sizes substantially larger than anticipated, and optimal soil conditions during excavations because of minimal pit runs and no black sand encountered. The favorable CTD SV is partially offset by project L-830, Filter Plant Filter Control System Upgrade due to engineering design completing behind schedule impacting successor activities, like delays in material delivery and delays in work activities.

Impacts - Cumulative Schedule Variance: Impacts to Reliability Projects are minimal because each is an independent stand-alone project.

Corrective Action – Cumulative Schedule Variance: No corrective action as each project is stand-alone.

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 VAC 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 2016 which increased the contract value. The FY 2016 pension and labor adder proposal was negotiated and incorporated in April 2017. At the request of RL, the labor and pension proposals are submitted annually at fiscal year-end. The FY 2017 variances associated with labor and pension will continue to grow during the fiscal year.



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 (2017/3/27)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2017/4/23)
	c. Type CPAF	d. Share Ratio	c. EVMS Acceptance NO X YES	
5. Evaluation				

Impacts – At Complete Variance:

The VAC 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 VAC 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.

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 April 2017 increased by \$34.1M from \$3,425.3M to \$3,459.4M. The budget increases are from Contract Mods 587 & 588 – FY 2016 Labor Adder and Pension Cost Variance Proposal.

Changes in Estimated Cost of Authorized / Unpriced Work:

The Authorized Unpriced Work (AUW) for April 2017 remained at \$0M.

Changes in Estimated Price:

The Estimated Price of \$3,809.6M is based on the Most Likely Management Estimate at Completion (MEAC) of \$3,599.3M and fee of \$210.3M. The Most Likely MEAC reflects recognition of significant additional work scope in FY 2009 through FY 2012 related to the 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, it is expected that the FY 2017 variance will exceed the 10% threshold from Section B.5 of the MSA contract.

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

During April 2017, the Estimate at Completion (EAC) decreased by (\$3.3M) from \$3,602.6M to \$3,599.3M; (\$3.2M) in the Performance Measurement Baseline (PMB), \$0.3M in the Non-PMB and (\$0.4M) in Management Reserve. The PMB decrease is primarily due to engineering support staffing shortages in the Water/Sewer Services area and timing differences for Reliability Projects that are being deferred. The deferred Reliability Project's remaining budget will be moved into the out-year planning package with an offsetting forecast in a future period. The Non-PMB increase is primarily due to Other Hanford Contractor, CHPRC, requesting more support than planned.



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 (2017/3/27)
b. Location (Address and Zip Code) Richland, WA 99352	b. Number - RL14728		b. Phase - Operations	b. To (2017/4/23)
	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 April 2017 decreased by (\$0.4M) from \$3.8M to \$3.4M. The decrease was primarily due to implementation of BCR #VRL40RP-17-009 Rev 1 – Increase L-853, 200E Sewer Flow Equalization Facility Budget from Management Reserve for Realized Risk (ID #1746).

Differences in the Performance Measurement Baseline:

This reporting period the Performance Measurement Baseline increased by \$29.7M from \$2,348.9M to \$2,378.6M. The increase was primarily due to implementation of BCR #VMSA-17-015– Definitization of Mods 587 and 588 – FY 2016 Labor Adder and Pension Cost Variance Proposal.

Additionally the following BCRs related to Reliability Projects adjusted time phasing, but did not change the contract value.

- VRL40RP-17-010 Rev 1 – Re-Plan & Reschedule L-854 per Design Impacts Related to L-853 & Return Budget to Reliability Project FY 2018 Out-Year Planning Package
- VRL40RP-17-022 – Move FY 2018 RL-40 Reliability Projects Planning Package Budget to L-830, Filter Plant Filter Control System Upgrade for Impacts Out of MSA Control and Extend Schedule

Differences in the Non - Performance Measurement Baseline:

This reporting period the Non-PMB increased by \$4.8M from \$1,072.6M to \$1077.4M. The increase was due to implementation of BCR #VMSA-17-015– Definitization of Mods 587 and 588 – FY 2016 Labor Adder and Pension Cost Variance Proposal.

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) collects the cost of centralized management, support from others, craft indirect time, and non-labor cost such as training and facilities. 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 – April 2017					
Account Description	BCWS	BCWP	ACWP	CV	Liquidation
Direct Labor Adder					
Software Engineer Services DLA (3001.03.02.03)	\$1,522.6	\$1,522.6	\$1,278.7	\$243.9	\$(1,278.6)
Content & Records Management DLA (3001.03.01.04)	\$532.7	\$532.7	\$445.9	\$86.8	\$(381.1)
Transportation DLA (3001.04.06.02)	\$1,126.4	\$1,126.4	\$3,056.9	\$(1,930.5)	\$(3,793.1)
Maintenance DLA (3001.04.05.02)	\$4,013.6	\$4,013.6	\$5,420.7	\$(1,407.1)	\$(4,846.0)
Janitorial Services DLA (3001.04.05.03)	\$715.0	\$715.0	\$684.9	\$30.1	\$(502.0)
Total Direct Labor Adder	\$7,910.3	\$7,910.3	\$10,887.1	\$(2,976.8)	\$(10,800.8)

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.



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

Fiscal Year 2017 to Date – April 2017					
Account Description	BCWS	BCWP	ACWP	CV	Liquidation
Usage Based Services					
Training (3001.01.04.02)	\$6,615.1	\$6,615.1	\$8,233.5	\$(1,618.4)	\$(8,661.1)
HRIP (3001.02.04.02)	\$3,482.7	\$3,482.7	\$2,159.8	\$1,322.9	\$(2,048.3)
Dosimetry (3001.02.04.03)	\$3,567.3	\$3,567.3	\$2,422.1	\$1,145.2	\$(2,971.6)
Information Technology Services (3001.03.07.01)	\$17,266.1	\$17,266.1	\$17,174.7	\$91.4	\$(17,671.5)
Work Management (3001.04.13.01)	\$-	\$-	\$338.3	\$(338.3)	\$(323.5)
Courier Services (3001.04.15.02)	\$148.4	\$148.4	\$108.2	\$40.2	\$(106.1)
Occupancy (3001.04.14.06)	\$4,401.3	\$4,401.3	\$5,140.9	\$(739.6)	\$(4,783.2)
Crane & Rigging (3001.04.08.02)	\$6,865.3	\$6,865.3	\$6,768.8	\$96.5	\$(6,456.3)
Guzzler Trucks (3001.04.06.03)	\$51.6	\$51.6	\$(1.0)	\$52.6	\$-
Fleet (3001.04.07.02)	\$5,172.6	\$5,172.6	\$8,621.1	\$(3,448.5)	\$(8,060.2)
Total UBS	\$47,570.4	\$47,570.4	\$50,966.4	\$(3,396.0)	\$(51,081.8)
Total DLA / UBS	\$55,480.7	\$55,480.7	\$61,853.5	\$(6,372.8)	\$(61,882.6)

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 (-\$6.4M) – Transportation DLA costs have increased in response to the ongoing Stevens Center and DOE moves, as well as additional support caused by the Winter weather impacts to road, lot, and walkway upkeep. Maintenance DLA cost impact a result of continual increased project work across the Site, such as the 283W Filter Beds and PFP support. Occupancy volume has increased due to the FY17 inclusion of 2261 Stevens and 1981 Snyder facilities, per the IT scope transition. Overall, the Usage Based and Direct Labor Adder service demand is far in excess of contract baseline assumptions, especially in Fleet count/services, GSA vehicle count, and Training classroom student volume. Due to the nature of the accounts, costs will continue to mirror increased service requests and liquidation values in all of the pools.



8.0 RELIABILITY PROJECT STATUS

Activity in April 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)																
Work Scope Description (RL-40 Projects)	Contract to Date - Performance								Project Lifecycle				Complete Dates			VAC Cost
	BCWS	BCWP	ACWP	SV	CV	SPI	CPI	CSPI	BAC	EAC	VAC	% Complete	Complete Date	Forecast Date	Schedule at Complete	
L-419, 24in Line Renov/Replace from 2901U to 200E	1,003.8	1,232.0	1,059.5	228.2	172.5	1.2	1.2	1.2	3,795.5	3,428.0	367.5	32.5%	3/28/18	2/13/18	G	G
L-612, 230kV Transmission System Reconditioning and Sustainability Repairs	1,008.4	1,005.9	663.7	(2.5)	342.2	1.0	1.5	1.3	1,562.4	1,249.5	312.9	64.4%	5/23/19	5/2/19	G	G
L-761, Phase 2a Procure, Install, & Closeout	2,161.9	2,133.5	2,202.1	(28.4)	(68.6)	1.0	1.0	1.0	2,162.2	2,326.8	(164.6)	98.7%	12/29/16	5/18/17	R	G
L-789, Prioritize T&D Sys Wood PP Test & Replace	315.1	320.0	278.1	4.9	41.9	1.0	1.2	1.1	1,250.0	1,213.2	36.8	25.6%	5/21/18	5/21/18	G	G
L-830, Filter Plant Filter Ctrl Sys Upgrade	1,455.2	1,211.5	1,801.0	(243.7)	(589.5)	0.8	0.7	0.8	1,455.2	2,324.9	(869.7)	83.3%	4/13/17	5/21/18	R	R
L-775, Chip SI Rt 4s, Canton Ave to Y Barricade	172.5	165.8	136.7	(6.7)	29.1	1.0	1.2	1.1	1,808.8	1,815.4	(6.6)	9.2%	10/10/17	9/28/17	G	G
L-776, Chip SI Rt 4s, Y Brrcd to 618 Wst St Ntrnc	116.1	109.4	63.4	(6.7)	46.0	0.9	1.7	1.3	1,710.4	1,700.1	10.3	6.4%	10/10/17	10/17/17	Y	G
L-777, Chip SI Rt 4s, 618-10 Wst Site to HR Road	138.3	131.6	97.5	(6.7)	34.1	1.0	1.3	1.2	1,665.7	1,661.6	4.1	7.9%	10/10/17	11/14/17	R	G
L-859, Rebuild 1st St from Canton Ave to IDF Entrance Road	157.7	159.2	127.3	1.5	31.9	1.0	1.3	1.1	1,152.6	1,109.9	42.7	13.8%	8/29/17	8/30/17	Y	G
L-853, 200E Sewer Flow Equalization Facility	1,051.1	1,033.9	937.7	(17.2)	96.2	1.0	1.1	1.0	5,713.2	5,601.3	111.9	18.1%	1/28/19	1/28/19	G	G
L-854, 200E Sewer Consolidations	723.8	717.3	629.9	(6.5)	87.4	1.0	1.1	1.1	6,033.0	5,959.4	73.6	11.9%	11/28/18	11/28/18	G	G
L-868, Raw Water Fire Protection Loop for LAWPS	596.4	1,182.0	467.5	585.6	714.5	2.0	2.5	2.3	1,227.1	549.9	677.2	96.3%	12/28/17	6/13/17	G	G
L-894, Raw Water Cross Connection Isolation 200E/W	345.5	394.7	167.7	49.2	227.0	1.1	2.4	1.7	1,400.0	1,156.5	243.5	28.2%	3/1/18	2/6/18	G	G
RL-40 Total	9,245.8	9,796.8	8,632.1	551.0	1,164.7	1.1	1.1	1.1	30,936.1	30,096.5	839.6					

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-419, 24in Line Renov/Replace from 2901U to 200E*: Favorable SV is due to early performance of the pipeline excavation and installation ahead of the as-planned start.
- *L-761, Replace RFAR, Phase 2a - Procure, Install, & Closeout*: Unfavorable SV is due to delays in hiring the construction crew, and procurement and installation of the office and craft change trailers during Construction Mobilization ramp-up. A BCR to add budget has been placed on hold pending an evaluation of alternate solutions to the RFAR Project. Work performed included the Analytical Hierarchy Process, report generations, and presentations for MSA management and DOE.
- *L-830, Filter Plant Filter Control System Upgrade*: Unfavorable SV is because engineering design completed behind schedule impacting successor activities, delays in material delivery of valves/actuators and control panels, and delays to work performance due to Filter Plant issues. Work planning and construction inefficiencies in construction increased the variance. A Baseline Change Request (BCR) was processed to recover a portion of the delay that is outside of MSA's control.
- *L-868, Raw Water Fire Protection Loop for LAWPS*: Favorable SV is due to efficiencies during construction execution in both subcontractor performance, and project support. Efficiencies include contractor owned equipment (multiple construction activities performed concurrently), contractor resource availability (crew sizes substantially larger than anticipated), and optimal soil conditions during excavations (a minimal pit run and no black sand encountered).

CTD Cost Variances (CV):

- *L-419, 24in Line Renov/Replace from 2901U to 200E*: Favorable CV is due to estimated subcontractor costs being lower than the planned budgeted costs.
- *L-612, 230kV Transmission System Reconditioning and Sustainability Repairs*: Favorable CV is due to the construction subcontract performed for significantly less than the original estimate. The Environmental Assessment (EA) was contracted and not self-performed. Because of numerous comments and review



cycles, it is anticipated that the favorable cost variance will be significantly reduced.

- L-761, *Replace RFAR, Phase 2a - Procure, Install, & Closeout*: Unfavorable CV is primarily due to the Project being re-evaluated to determine alternate solutions to the Fire Alarm Control Units communicating with the Dispatch Stations. Options will be presented to MSA management, DOE, and OHCs to obtain concurrence on a Project path forward. Upon approval, the project will be rebaselined. During initial construction there were multiple cost savings that partially offset this unfavorable CV.
- L-830, *Filter Plant Filter Control System Upgrade*: Unfavorable CV is due to design requiring additional funding for 1) resolving comments provided at the initial 90% design submittal, 2) in-house engineering required to complete material procurement, 3) Operational Test Procedures and Acceptance Test Procedures, 4) increased work package planning cost, and 5) construction cost not anticipated (scaffolding, rigging, outage costs, confined space inefficiencies, and extensive work planning efforts). Construction costs increased due to insufficient design details, work package planning, and unavailable materials. The cost variance is not recoverable. A BCR was processed to recover a portion of the delay outside of MSA's control.
- L-853, *200E Sewer Flow Equalization Facility*: Favorable CV is due to efficiencies in both subcontractor design efforts, and project support. Efficiencies are associated with using historical geotechnical reports in lieu of performing a new geotechnical survey and weekly design workshops to address concerns/design inputs as early as possible, and to minimize rework.
- L-854, *200E Sewer Consolidations*: Favorable CV is due to efficiencies in both subcontractor design efforts and project support. Efficiencies are associated with using historical geotechnical reports in lieu of performing a new geotechnical survey, and weekly design workshops to address concerns and provide timely design inputs to minimize rework.
- L-868, *Raw Water Fire Protection Loop for LAWPS*: Favorable CV is due to receiving favorable bids on Design and Construction contracts, and efficiencies in project support, associated with optimal field conditions/minimal underground interferences encountered.
- L-894, *Raw Water Cross Connection Isolation 200E/W*: Favorable CV is due to the Study Report utilizing fewer resources than originally anticipated.



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

- *L-419, 24in Line Renov/Replace from 2901U to 200E*: Favorable VAC is due to utilizing a previous design for a proximity project and receiving less engineering costs for the design phase than planned. Also, the construction contract for vegetation clearing was completed for a fraction of the cost that was originally estimated.
- *L-612, 230kV Transmission System Reconditioning and Sustainability Repairs*: Favorable VAC is due to the conceptual design subcontract award, Environmental Assessment (EA) contract, and planning costs being less than planned. Rework of the draft EA and the required subcontract with Pacific Northwest National Laboratory (PNNL) will reduce the positive cumulative cost variance to approximately the Estimate at Completion (EAC) level.
- *L-761, Phase 2a Procure, Install, & Closeout*: Unfavorable VAC is primarily due to the Project being re-evaluated to determine alternate solutions to the Fire Alarm Control Units communicating with the Dispatch Stations. Options are being evaluated to lower the overall Project cost. Options considered include combining the Radio Fire Alarm Receiver (RFAR) and Fire Alarm Control Unit projects (Projects L-761 and L-863), along with changing the communicating architecture. These different options will be presented to MSA management, DOE, and OHCs to obtain concurrence on a Project path forward. Upon approval, the project will be rebaselined. During initial construction there were multiple cost savings that partially offset this unfavorable VAC.
- *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. The project is currently being rebaselined to complete the remaining scope. A BCR was processed to recover a portion of the delay that is outside MSA's control. Items in MSA's control will be reported as a variance to performance.
- *L-853, 200E Sewer Flow Equalization Facility*: Favorable VAC is due to efficiencies in project support, and the removal of the activity, L-853-1470 "Process Project Suspension Documents," from the forecast. Efficiencies are associated with using historical geotechnical reports in lieu of performing a new geotechnical survey and weekly design workshops to address concerns/design inputs as early as possible to minimize rework.



- L-854, *200E Sewer Consolidations*: Favorable VAC is due to efficiencies in project support and the removal of activity L-854-1470, "Process Project Suspension Documents," from the forecast. Efficiencies are associated with using historical geotechnical reports in lieu of performing a new geotechnical survey and weekly design workshops to address concerns/design inputs as early as possible to minimize rework.
- 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 the Study Report 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 1				
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	204	32.5%	10-Aug-15	28-Mar-18	10-Aug-15 A	13-Feb-18					
L-612	L-612, 230kV Transmission System Reconditioning and Sustainability Upgrades	352	511	64.4%	31-Aug-15	23-May-19	31-Aug-15 A	02-May-19					
L-761 Ph2a	L-761, Replace RFAR Phase 2a	154	19	98.7%	20-Jul-15	29-Dec-16	20-Jul-15 A	18-May-17					
L-775	L-775, Chip Seal RT 4s, Canton Ave to Y Barricade	186	111	9.2%	10-Aug-15	10-Oct-17	10-Aug-15 A	28-Sep-17					
L-776	L-776, Chip Seal Rt 4S Y Brrcd to 618 Wst St Ntrnc	72	124	6.4%	15-Jun-16	10-Oct-17	21-Jun-16 A	17-Oct-17					
L-777	L-777, Chip Seal RT 4s, 618-10 Wst Site to HR Road	186	144	7.9%	24-Aug-15	10-Oct-17	10-Aug-15 A	14-Nov-17					
L-789	L-789, Prioritized T&D System Wood Pole Upgrades	203	272	25.6%	10-Aug-15	21-May-18	10-Aug-15 A	21-May-18					
L-830	L-830, Filter Plant Filter Control System Upgrade	125	272	83.3%	29-Jun-15	13-Apr-17	29-Jun-15 A	21-May-18					
L-853	L-853, 200E Sewer Flow Equalization Facility	309	444	18.1%	17-Aug-15	28-Jan-19	17-Aug-15 A	28-Jan-19					
L-854	L-854, 200E Sewer Consolidations	283	404	11.9%	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	91	13.8%	08-Sep-15	29-Aug-17	08-Sep-15 A	30-Aug-17					
L-868	L-868, Raw Water Fire Protection Loop for LAWPS	155	36	96.3%	04-Jan-16	28-Dec-17	14-Dec-15 A	13-Jun-17					
L-894	L-894, Raw Water Cross Connection Isolation 200E/W	376	199	28.2%	29-Aug-16	01-Mar-18	29-Aug-16 A	06-Feb-18					

Remaining Work
 Baseline

**MSC - Reliability Projects
Summary Schedule
Data Date: 23-Apr-17**





9.0 BASELINE CHANGE REQUEST LOG

Baseline Change Request Log for April

Seven Baseline Change Requests (BCRs) were processed in April.

One BCR incorporated Contract Modifications:

- VMSA-17-015– Definitization of Mods 587 and 588 – FY 2016 Labor Adder and Pension Cost Variance Proposal

Three BCRs related to Reliability Projects:

- VRL40RP-17-009 Rev 1 – Increase L-853, 200E Sewer Flow Equalization Facility Budget from Management Reserve for Realized Risk (ID #1746)
- VRL40RP-17-010 Rev 1 – Re-Plan & Reschedule L-854 per Design Impacts Related to L-853 & Return Budget to Reliability Project FY 2018 Out-Year Planning Package
- VRL40RP-17-022 – Move FY 2018 RL-40 Reliability Projects Planning Package Budget to L-830, Filter Plant Filter Control System Upgrade for Impacts Out of MSA Control and Extend Schedule

Three BCRs were Administrative in Nature:

- VMSA-17-004 Rev 6 – Administrative BCR – Create Lower Level Task Order (LLTO) WBSs for Cost Collection Established in the Month of April
- VMSA-17-014 – Administrative BCR – Change Supply Chain Resource Code from 4C310 to 4C320 in HPIC per Contracts Direction
- VSW-17-009 – Administrative BCR – Reassign Maintenance Management Program from President’s Office to Training & Conduct of Operations



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	Mar 2017	1,230,506		1,230,506	1,230,506	226,637		1,118,348		2,348,854	2,348,854
VMSA-17-004 Rev 6						0		0		0	2,348,854
VMSA-17-014						0		0		0	2,348,854
VMSA-17-015						28,322		29,318		29,318	2,378,172
VRL40RP-17-009 Rev 1						(130)		457		457	2,378,630
VRL40RP-17-010 Rev 1						(106)		0		0	2,378,630
VRL40RP-17-022						405		0		0	2,378,630
VSWS-17-009						0		0		0	2,378,630
	Apr 2017	1,230,506		1,230,506	1,230,506	255,127		1,148,124		2,378,630	
Prior Non-PMB Total	Mar 2017	604,007		604,007		94,469		468,573		1,072,580	1,072,580
VMSA-17-015						4,767		4,767		4,767	1,077,347
Revised Non-PMB Total	Apr 2017	604,007		604,007		99,235		473,340		1,077,347	
Total Contract Performance Baseline	Apr 2017	1,834,513		1,834,513	1,834,513			1,621,464		3,455,976	
Management Reserve	Mar 2017		0	0			3,775		3,855	3,855	3,855
VRL40RP-17-009							(457)		(457)	(457)	3,398
Revised Management Reserve	Apr 2017		0	0			3,318		3,398	3,398	
Total Contract Budget Base				1,834,513				1,624,862		3,459,374	
Prior Fee Total	Mar 2017	109,961		109,961		21,701		100,323		210,283	210,283
Revised Fee Total	Apr 2017	109,961		109,961		21,701		100,323		210,283	
Change Log Total	Apr 2017			1,944,473				1,725,184		3,669,658	



10.0 RISK MANAGEMENT

April 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 March 2017 data. The following items were approved:
 - Three new Mission risks; one related to the MSA Public Works organization, one related to MSA Site Services & Interface Management, and one related to MSA Training & Conduct of Operations.
 - One closed Mission risk related to MSA Business Operations.
 - Two new Reliability Project risks for Project L-789, *Prioritized T&D System Wood Power Poles Testing and Replacement*, and Projects L-853, *200E/200W Force Main*; and L-854, *200E Sewer Consolidations*.
 - One closed Reliability Project risks for Project L-830, *Filter Plant Filter Control System Upgrade (Valves)*.
- Risk Reporting –In accordance with the MSC-PLN-ENG-42375, *Hanford Mission Support Contract Risk Management Plan*, the monthly Risk Management report was submitted to the RL Contracting Office in April. This report consisted of March data.
- Mission Risk Management:
 - Mission Risk Elicitations – Risk Management held a follow-on elicitation to support the effort to transition to the updated Environmental Management System ISO 14001. Several new risks are in development. Additional actions included:
 - Risk Management facilitated a risk elicitation with Information Management (IM) to develop a new risk associated with IM legacy development languages.
 - An elicitation was held with Environmental Safety & Health to begin development of a new risk related to industrial hygiene equipment services support.
 - Risk Management toured the Hanford Site fuel station (6291) and conducted a risk elicitation regarding the need for an upgrade or



replacement of this facility. A set of risks are in development associated with this concern.

- Project Risk Analysis:
 - Project Risk Review and Update – The monthly risk review was performed with the White Bluffs Bank Project Manager to review and revise the White Bluffs Bank rehabilitation project risk register. Updates to the risk register were captured as appropriate.
 - Reliability Project Risk Review and Update – Performed monthly risk review with the Project Managers to review and revise the Reliability Project risk registers for six active projects. Updates to these risk registers 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:
 - Contract Change Proposal Support – Risk Management performed a Sensitivity Analysis for the Long Term Stewardship – 100-N and 100IU6/Segment 4B Areas Sampling and Maintenance proposal. This analysis has been documented and included in the proposal review process.
 - Operation Change Control Board (OCCB) Packet Review - The standard review of the OCCB Packet was completed and assessed for risks for new work scope.



11.0 DASHBOARD SUMMARY

Table 11-1. Performance Evaluation and Measurement Plan

April FY 2017							
2017 Performance Evaluation and Measurement Plan							
Deliverables	Plan	MSA	Status				
			YTD	APR			
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.	9/30/2017	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)	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 <i>Maintenance Management Program Management Plan</i> , Rev 2 and HNF-56046, rev 5, <i>MSA Maintenance Management Program Five-Year Plan</i> .	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	 = Objective missed
 = Complete	 = N/A
 = In jeopardy	



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

April FY 2017					
2017 Performance Evaluation and Measurement Plan					
Deliverables	Plan	MSA	Status		
			YTD	APR	
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	On schedule
	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	On schedule
	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	On schedule
	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	On schedule
	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	On schedule
	2.1.6	Provide Hanford contractors with integrated tools to maximize "wrench time."	9/30/2017	Metzger	On schedule
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	On schedule
Provide leadership to improve management effectiveness and collaborate and participate proactively with customers.					On schedule
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:					On schedule
o Business and financial management using approved purchasing, estimating, property, budget, planning, billing, labor, accounting, and performance measurement systems, providing visibility and transparency to DOE with respect to each of the foregoing					On schedule
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					On schedule
o Safeguards and security, fire department operations, emergency response, and emergency operations/emergency management					On schedule
o Land Management					On schedule
o Infrastructure and services program management, operations and maintenance					On schedule
o Effective contractor human resources management					On schedule
o Problem identification and corrective action implementation					On schedule
Performed work safely and in a compliant manner that assures the workers, public, and environment are protected from adverse consequences			On schedule		

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 April, and provides a 30-day look ahead through May 2017.

Table 12-1. April – May 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	4/3/17	3/30/2017	Review	45 days		
CD0123	Monthly Billing Reports for DOE Services - Mar	Eckman	4/5/17	3/29/2017	Information	N/A	N/A	N/A
CD0144	Monthly Performance Report - Feb	Olsen	4/10/17	4/5/2017	Review	None	N/A	N/A
CD0124	Quarterly Service Level Report	Eckman	4/10/17	4/10/2017	Information	N/A	N/A	N/A
CD0178	Quarterly Manpower Reports and Budget Forecasts	Walton	4/17/17	4/12/2017	N/A	N/A	N/A	N/A
CD0023a	National Security (NSS) - Quarterly Status Report	Walton	4/21/17	4/12/2017	Review	N/A	N/A	N/A
CD0030	HAMMER Strategic Plan	Metzger	4/30/17	4/27/2017	Review	30 days	5/27/17	
CD0084	Bonneville Power Administration (BPA) Power and Transmission Service invoice verification and breakdown of site contractor costs - Feb	Synoground	4/30/17	4/27/2017	Review	30 days	5/27/17	
CD0123	Monthly Billing Reports for DOE Services - Apr	Eckman	5/5/17	5/3/2017	Information	N/A	N/A	N/A
CD0144	Monthly Performance Report - Mar	Olsen	5/10/17	5/2/2017	Review	None	N/A	N/A
CD0035	Hanford Site Wild Land Fire Plan	Walton	5/15/17		Approve	30 days		
CD0084	Bonneville Power Administration (BPA) Power and Transmission Service invoice verification and breakdown of site contractor costs - Mar	Synoground	5/30/17		Review	30 days		

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%	83.2%	55.5%
Small Disadvantaged Business	10.0%	22.4%	16.2%
Small Women-Owned Business	6.8%	23.1%	12.0%
HubZone	2.7%	12.4%	4.5%
Small Disadvantaged, Service Disabled	2.0%	14.5%	4.8%
Veteran-Owned Small Business	2.0%	15.2%	6.4%

Through April 2017

Prime Contract Targets:

- At least 40% contracted out beyond MSA, LLC = 46% (\$1.41B/\$3.06B)
- Small Business 25% of Total MSC Value = 26% (\$0.79B/\$3.06B)



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SERVICE AREA SECTIONS

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

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



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MISSION SUPPORT ALLIANCE

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



Business Operations

Rich Olsen, Vice President and Chief Financial Officer

Monthly Performance Report

April 2017



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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, contract and subcontract administration, and financial controls to effectively manage the Mission Support Contract (MSC). Business Operations is responsible for activities that include Finance and Accounting (F&A), Program Controls, and Contracts.

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 provides Property and Warehouse Management services, including Inventory Management, Excess Property, Receiving, Warehousing, Shipping, Stores Delivery, and Courier Services. 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.

KEY ACCOMPLISHMENTS

PROGRAM CONTROLS

Fleet Equipment Request and Planning Integration – During April, Business Operations and MSA Site Services & Interface Management (SS&IM) collaborated to develop an integrated fleet vehicle/equipment request and planning integration document. The purpose of the document is to clarify: 1) the different planning/budget request products and requirements, that are submitted to DOE and the Office of Management & Budget (OMB); 2) ensure integration between the different planning products; 3) clarify the DOE and the OMB recipients; and 4) identify deliverable due dates. Process improvements were identified during development of the process document and communicated to RL.

Fiscal Year (FY) 2018-2019 Integrated Investment Portfolio (IIP) Planning Exercise – In March, MSA delivered an FY 2018-2019 planning overview and Integrated Investment Portfolio (IIP) to RL for evaluation. MSA subsequently prepared a draft FY 2018-2019 Contract/Budget Alignment Guidance (C/BAG), which was delivered to and reviewed



with the RL Assistant Manager for Mission Support Program Controls lead On April 11, 2017. RL issuance of the C/BAG is anticipated in May 2017.

CONTRACTS AND PROCUREMENT

Notable Small Business Performance – MSA’s small business utilization in April continued well above goal in several areas:

April 2017 Small Business Utilization Highlights		
Description	Goal	Actual
Small Business	50.00 %	83.61 %
Small Women Owned	6.80%	23.06%
Service Disabled Veteran Owned	2.00%	15.22%
Overall Contract Value Outsourced	25.80%	46.00%

In April, MSA utilized a DOE Enterprise-Wide Agreement to renew FY 2017 Microsoft License support for Hanford’s site licenses. The agreement is with a small service-disabled, veteran-owned business. The use of this Strategic Agreement also resulted in \$552K of Strategic Savings.

Cost Savings through Strategic Agreements – MSA continues to support the National Nuclear Safety Administration and Environmental Management (NNSA/EM) Supply Chain Management Center in utilization of Strategic Agreements. Through the first quarter FY 2017, MSA realized \$2.9M in cost savings associated with Government Strategic Sourcing agreements against a goal of \$1.2M, and an additional \$1.9M in other savings for a total of \$4.8M in documented savings.

PROPERTY AND WAREHOUSE MANAGEMENT (P&WM)

Pretreatment Engineering Platform – During April, MSA removed additional vessels from the Pretreatment Engineering Platform (PEP) being excessed by WRPS and hauled by MSA’s scrap vendor for recycling. This major project to disassemble and scrap out the PEP is scheduled to continue into June.



FINANCE AND ACCOUNTING

Financial Services – As of April 2017, MSA performed payroll/accounting for other Hanford contractors, as noted below:

- Processed 83,186 paychecks/advices for the CH2M HILL Plateau Remediation Company (CHPRC) and Washington River Protection Solutions LLC (WRPS) employees;
- Processed 1,671 physical checks to vendors for Fluor Hanford, Inc. (FH), CHPRC, and WRPS;
- Processed 2,921 electronic payments to vendors for FH, CHPRC, and WRPS;
- Processed 22,556 timecard corrections for CHPRC, and WRPS.
- Performed manual entry and approval of 1,510 timecards for those on short-term disability for CHPRC and WRPS.

Forward Pricing Rates Published – The following FY 2017 Revision 1 forward-pricing rates were published to the MSA Finance website on April 25, 2017:

- Absence Adder (ABS)
- Continuity of Service (COS)
- Continuity of Service Overtime (CSO)
- Cost of Pension (COP)
- General and Administrative (G&A)

These revised rates will be implemented in fiscal month May.

LOOK AHEAD

General Purpose Facilities Master Plan – In April, as part of the multi-contractor Warehouse Working Group, all contractors received information and a request for data in support of MSA's update of the General Purpose Facilities Master Plan. Warehouse space is included in the current plan, and warehousing needs will be projected out to 2050 in the revised version, due at the end of Fiscal Year 2017.

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 April 2017.



BASELINE PERFORMANCE

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

Fund Type	April 2017					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	\$(4.1)	\$0.0	\$4.6
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	\$0.8	\$0.0	\$2.0
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	\$2.2	\$2.2	\$0.9	\$0.0	\$1.3	\$91.1	\$91.1	\$65.2	\$0.0	\$25.9
Subtotal	\$2.2	\$2.2	\$0.8	\$0.0	\$1.4	\$99.2	\$99.2	\$66.7	\$0.0	\$32.5

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], and 3001.90.04 [MSA Transition])

Current Month Cost Variance +\$1.4M – April’s favorable cost variance is primarily due to the incorporation of Contract Modifications 587 and 588. These modifications definitized the FY 2016 labor and pension adders, and were incorporated into the baseline as a current-month entry during April 2017.

Contract-to-Date (CTD) Cost Variance +\$32.5M – The favorable CTD cost variances in RL-20, RL-40 and Site-wide Services are primarily due to credits associated with Affiliate Fee on Information Technology scope and Training on Overtime pending final resolution, received in September 2016 and March 2017.

MISSION SUPPORT ALLIANCE

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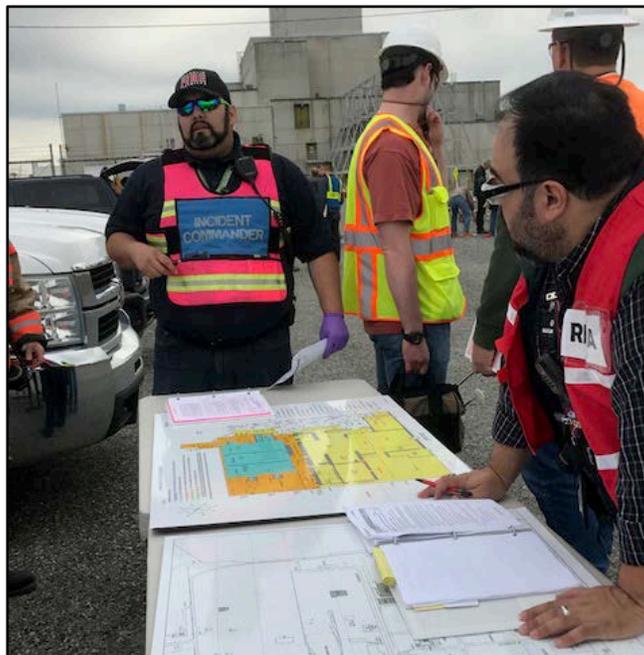


Emergency Services

Craig Walton, Vice President

Monthly Performance Report

April 2017



Emergency Management 100K Protective Action Drill



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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)

Annual Protective Action Drills – EMP staff successfully developed and conducted a protective action drill on behalf of the U.S. Department of Energy (DOE) Richland Operations Office (RL) for Hanford Site employees located in the 100, 200 East, and 200 West Areas on April 20, 2017. The drill provided personnel the opportunity to demonstrate take cover actions.

Fiscal Year (FY) 2017 First Quarter Limited Exercise Evaluation Corrective Action Plan – EMP submitted the FY 2017 First Quarter Limited Exercise Evaluation Corrective Action Plan to RL on April 26, 2017.

Hanford Annual FY 2017 Field Exercise Plan – Emergency Management personnel submitted the *Hanford FY 2017 Annual Field Exercise Plan* to RL on April 17, 2017. The exercise will be conducted on May 18, 2017, at the Pacific Northwest National Laboratory Radiochemical Processing Laboratory.

Independent Evaluation of Drill for Exercise Credit – Emergency Management submitted the *Central Plateau Surveillance and Maintenance Independent Evaluation of Drill for Exercise Credit* evaluation report to RL on April 11, 2017. The report included an evaluation of 32 response and programmatic objectives, and will be issued by RL to the contractor.

Radiological Assistance Program (RAP) Region 8 Support – RAP activities in April included training conducted for Defense Threat Reduction Agency activity in Anchorage, Alaska, April 2-7, 2017, and coordination with Federal Bureau of Investigation and Secret Service for support for the Portland Rose Festival on April 20, 2017.



HANFORD FIRE DEPARTMENT (HFD)

Self-Contained Breathing Apparatus (SCBA) Activity – HFD Support Services personnel filled over 8,000 SCBA bottles in support of Tank Farm activities for the month of April. This was a significant increase and record setting support: average monthly bottle fills have been 5,000 to 6,000 per month.

Hanford Fire Protection Forum Site-Wide Inspection, Testing and Maintenance Standard – Helping to complete MSA’s FY 2017 Performance Incentive 2.1.5, (“Improve integration and performance of Fire Systems Maintenance”), the *Site-Wide Inspection, Testing, and Maintenance (ITM) Standard* was submitted to RL on April 25, 2017. The *ITM Standard* was provided to the Site-Wide Fire Protection Forum members on April 3, 2017. In addition, HFD transmitted proposed methods to evaluate changes to the National Fire Protection Association Codes and Standards to the Site-Wide Fire Protection Forum on April 25, 2017.

Prescribed Burn Activities – HFD personnel continued prescribed burn activities in April. A total of 6,650 cubic yards were burned.

SAFEGUARDS AND SECURITY (SAS)

Foreign Ownership Control or Influence (FOCI) – In accordance with DOE Order 0470.4b, Appendix B, MSA transmitted its annual FOCI submittal on March 29, 2017. On April 14, 2017, after reviewing the submittal SAS received a favorable FOCI determination from RL.

Spring Weapons Qualifications Completed – Hanford Patrol successfully completed the weapons qualification testing for Security Police Officers during the month of April.

SAS Contract Deliverables – Two Contract Deliverables were submitted in April:

- Contract Deliverable CD0023A, “*National Security System Quarterly Status Report,*” April 11, 2017.
- Contract Deliverable CD0178, “*Quarterly Manpower Reports and Budget Forecasts,*” April 12, 2017.

LOOK AHEAD

Wildland Fire Preparation – HFD has initiated wildland fire preparations, which include ensuring the appropriate apparatus is in ready response mode, required refresher training complete, and the Hanford Wildland Fire Plan has been updated.

MAJOR ISSUES



Nothing to report.

SAFETY PERFORMANCE

Emergency Services reported no Occupational Safety and Health Administration (OSHA) recordable injuries for April. One minor First Aid injury was reported when an employee felt a pop in the knee during training.

BASELINE PERFORMANCE

Fund Type	April 2017					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
HSPD-12 (RL-0011,RL-0012, RL-0013, RL-0030)	\$0.0	\$0.0	(\$0.1)	\$0.0	\$0.1	\$2.9	\$2.9	\$2.8	\$0.0	\$0.1
RL-0020 - SAS	\$13.5	\$13.5	\$4.8	\$0.0	\$8.7	\$442.7	\$442.7	\$449.7	\$0.0	(\$7.0)
Site-wide Services	\$5.1	\$5.1	\$3.7	\$0.0	\$1.4	\$202.6	\$202.6	\$218.1	\$0.0	(\$15.5)
Subtotal	\$18.6	\$18.6	\$8.4	\$0.0	\$10.2	\$648.2	\$648.2	\$670.6	\$0.0	(\$22.4)

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

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

Explanation of Fund Type Assignments by Project Baseline Summary (PBS) and Work Breakdown Structure (WBS): Homeland Security Presidential Directive (HSPD-12) work was funded by four different PBSs (RL-0011, RL-0012, RL-0013, RL-0030) in FY 2016 under WBS 3001.01.05.02, and carryover funding of \$1.1M will be spent against the HSPD-12 scope in FY 2017. New FY 2017 HSPD-12 funding and scope is now funded under Site-wide Services, WBS 3001.01.05.02.05. Other areas funded by Site-wide Services are HFD, 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) (+\$10.2M) –ES is working to RL-directed contract baseline re-alignment guidance that provides for a higher spending target than the baseline, which is explained by several baseline differences as described in the Contract-to-Date variance. However, April’s favorable CV is primarily due to the incorporation of Contract Modifications 587 and 588. These modifications definitized



the FY 2016 labor and pension adders, and were incorporated into the baseline as a current-month entry during April 2017.

Contract-to-Date (CTD) CV (-\$22.4M) – The primary drivers for the unfavorable 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. These 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.

MISSION SUPPORT ALLIANCE

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



Environmental, Safety, & Health

Mike Wilson, Vice President

Monthly Performance Report

April 2017

YOU are at the Intersection of MSA Safety and Environmental Programs

Y Voluntary Protection Program
Integrated Safety Management System

O Environmental Mgmt System
Automated Job Hazard Analysis
Employee Job Task Analysis

U Stop Work Authority
Zero Accident Council

They DON'T Work without **YOU!**



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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;
- 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

2017 Safety Connect – The 2017 Safety Connect was held April 18 – 19, 2017 at the TRAC Facility in Pasco, Washington. This year’s very successful event was an expansion of the annual Health & Safety EXPO, emphasizing Science, Technology, Engineering and Math principles, with extra focus on the “science of safety.” Approximately 20,000 people attended the two-day event, including approximately 2,000 students. U.S. Department of Energy (DOE) Richland Operations Office (RL), MSA and CH2M Hill Plateau Remediation Company (CHPRC) collaborated efforts and provided a transportation and shipping of radioactive material scenario that was demonstrated in the arena.

Elimination of Beryllium Sampling for 480V Switchgear and Molded Case Breakers – After reviewing data collected for beryllium sampling of Electrical Distribution Equipment (EDE), the Chronic Beryllium Disease Prevention Program committee recommended that sufficient data had been collected for 120-volt molded case breakers, and 480-volt and lower rated switchgear, to eliminate further sampling of such equipment. The committee prepared and approved a Resolution Form that modifies DOE-0342-005, the *Hanford Site Evaluation of Electrical Equipment Procedure*, eliminating



the requirement to sample the molded case breakers and switchgear unless a worker has a concern about a specific piece of equipment. As the overwhelming majority of EDE has been in the 480 volt or less rating, the elimination of this requirement will result in significant cost savings.

6266 Facility Breakers Replacement – RSS completed the change out of the breakers in the 6266 Facility, which had been an issue since moving into the facility. This now brings the facility into compliance with the electrical requirements.

Voluntary Protection Program (VPP) – Community Outreach – On April 11, 2017, MSA pipefitters teamed with CHPRC bargaining unit workers by volunteering to participate in the “After School Matters” Program at an elementary school in Kennewick, Washington. The workers talked about their professions and the hazards they face, and allowed the children to experience hands-on activities. This CHPRC/MSA effort demonstrated and integrated the VPP tenets for both the students and the presenters themselves. The presentations exposed the students to health and safety fundamentals on and off the job, including worksite analysis, hazard prevention and control, and training. Building the interactive displays relies on management leadership and employee involvement; while the craft took the lead in the presentations, there was also a team of administrative, engineering and management staff working with them.

LOOK AHEAD

PROJECT UPDATES

Air Modeling for Site Access Project Update – EIS met with CHPRC air quality subject matter experts to confirm emissions sources, Comprehensive Environmental Response, Compensation, and Liability Act planned activities over the next 10 years, and assumptions for air dispersion modeling inputs. EIS also met with the RL Access and Use Division to determine additional Hanford Site areas for public access analysis and RL’s senior management to discuss the goals and objectives of the project. EIS, along with the RL Access and Use Division, presented the Site Air Modeling Project to the United States Department of Fish and Wildlife (DFW) on April 12, 2017. DFW is an identified Communication Strategy key participant and is currently establishing future use plans for the Hanford Reach National Monument lands.

Tri-Party Agreement (TPA)/Public Involvement Review Requirement – EIS is working with the public involvement staff from the TPA agencies to eliminate an outdated requirement for Hanford regional Public Information Repositories to provide hard copies of materials for each Hanford public comment period. This process has



become outdated. The public rarely, if ever, requests hard copy. Proposed elimination of this requirement will be addressed during the five-year TPA review and update.

MSA Tower Inspections – The stop work for climbing the 200’ and 400’ towers is still in place, but has been partially lifted on Tower 21 to perform necessary maintenance for the Emergency Operations Center. A Statement of Work (SOW) for independent tower inspections is currently being routed internally to all the organizations who own towers at MSA for approval. Once approved, the SOW will be sent out for bids, a tower inspection company will be selected, and then all towers will be scheduled for inspection.

Radiological Protection Access Control Update – Radiological Safety is working with the other site contractors to implement one site-wide Radiological Access Control (RAC) program required for entry into radiological areas. The new program will replace the existing Access Control Entry and Automated RAC Systems that are currently being used across the Hanford site.

MAJOR ISSUES

None.

SAFETY PERFORMANCE

ES&H reported no Occupational Safety and Health Administration (OSHA) Recordable injuries in April.

BASELINE PERFORMANCE

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

Fund Type	April 2017					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
Site Wide Services	\$4.7	\$4.7	\$2.6	\$0.0	\$2.1	\$222.0	\$222.0	\$222.6	\$0.0	(\$.6)
Subtotal	\$4.7	\$4.7	\$2.6	\$0.0	\$2.1	\$222.0	\$222.0	\$222.6	\$0.0	(\$.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

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) (+\$2.1M) – CM favorable CV is primarily attributed to the incorporation of Contract Modifications 587 and 588. These modifications definitized the FY 2016 labor and pension adders, and were incorporated into the baseline as a current-month entry during April 2017.

CTD CV (-\$.6M) – 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 Fiscal Year (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 and FY 2017, the funding was again significantly higher than budgeted values, resulting in additional CTD overruns.

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Human Resources

T.A. Beyers, Vice-President

Monthly Performance Report

April 2017



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INTRODUCTION

Mission Support Alliance (MSA) Human Resources (HR) is tasked and responsible for providing a full-range of HR support to its customers. The organization is comprised of the following areas of expertise:

- Staffing/Diversity and Development;
- Total Compensation;
- Benefits Accounting/Pension & Savings Management;
- Labor/Employee Relations; and
- HR Technical Projects.

The HR organization, in support of direct MSA operations, is committed to developing and delivering programs that promote and enhance MSA's ability to recruit, develop and retain a diverse highly skilled MSA workforce to support Hanford's current and future missions.

In addition, as a Hanford site-wide service provider, HR serves as the administrator for multiple Hanford site employee benefit plans. As the administrator, HR ensures administration and delivery of market competitive employee benefit plans, including health & welfare and pension, to MSA and other Hanford contractor employees.

In both roles, HR is committed to addressing all customers in a fair, honest, ethical and confidential manner. Through partnership and collaboration with all customers and stakeholders, it is the organization's priority to advance strategic outcomes, promote well-informed decisions, and proactively address customers' needs while exceeding expectations.

KEY ACCOMPLISHMENTS

Green Belt Training – During April, two staff members of MSA HR were selected to attend Green Belt training for Lean Six Sigma. This four-day training was facilitated by MSA's Operating Excellence team. They presented tools and principles to assist in helping to drive continuous improvement and operational excellence across MSA. During the week, employees from Hanford site contractors, the U.S. Department of Energy (DOE) Richland Operations Office (RL) and the DOE Office of River Protection learned concepts and practiced facilitation skills which will be utilized in "Structured Improvement Activities" as they each work towards earning their certifications. Once certified, these employees will be able to help facilitate activities to help effect change



from the way things have “always been done,” in order to save time, reduce costs, and ultimately improve organizational results.

STAFFING/DIVERSITY & DEVELOPMENT

CWU Career Fair & Paramedic Classroom Presentation – MSA Staffing participated in the Annual Spring Career Fair held at Central Washington University (CWU) in Ellensburg WA on Thursday April 27, 2017. Staffing personnel had the opportunity to meet with many soon-to-be graduates and alumni to promote MSA’s employment opportunities. Academic majors heavily represented at the career fair were in Computer Science and Business Administration.

Additionally, MSA Staffing and the Hanford Fire Department (HFD) coordinated efforts and provided a classroom presentation that same day to students in the Paramedic Program at CWU. A Staffing representative and Assistant Fire Chief met with a group of 20 paramedic students to discuss the current and future need for Firefighter Paramedics within the HFD. The connection with Central Washington University’s Paramedic department’s professors and office administrator will serve for future recruiting efforts.

Staffing Records Archived – Members of the SDD team have been partnering with Information Management’s Software Engineering Services team to archive Staffing records from the Hanford Resources Information System (HRIS) into the Integrated Database Management System (IDMS). As of the end of April, there were over 6,000 applicant resumes transferred from HRIS into IDMS for storage as Record Copy. Progress is continuing in this effort with the ultimate goal of having all records stored electronically in IDMS, and hard copy files disposed of in accordance with the appropriate disposition schedules.

BENEFITS ACCOUNTING

Investment Committee Meeting – The Hanford Site Pension and Savings Investment Committee met with VOYA Financial and TCW MetWest companies to review investment performance and outlook for the future. VOYA Financial is responsible for managing pension plan investments in loans placed by banks. TCW MetWest is responsible for managing bond investments for the pension plan and Hanford Site Savings Plan participants.

TOTAL COMPENSATION

Annual Promotion and Adjustment Budget – In April, the compensation group made presentations to MSA Senior Staff regarding the annual promotion and salary budgets.



Included in this presentation were individualized reports for each division with suggested areas of review.

LABOR/EMPLOYEE RELATIONS

Company-Wide Support – During the month of April, MSA HR Business Partners assisted with several hiring panel interviews in an effort to fill open positions. Additionally, the Business Partners and Labor Relations Team conducted investigations and settled grievances conveyed to them. In addition, the HR Business Partners are partnering with the Vice Presidents and Total Compensation to distribute the Compensation Increase Plan Special Adjustment funds, including assisting with planning, reviews, reconciliations and proper paper work processing (Employee Record Changes).

Onboarding Standardization – HR Labor Relations Department staff participated in the Tripartite Meeting with Central Washington Building Trades (CWBT) and other Hanford Site contractors to discuss ways to standardize the onboarding process for construction workforce. Specifically addressed were standardizing the drug and alcohol testing process, and the potential establishment of a random drug and alcohol program. Additionally, they participated in the monthly interface meeting with the CWBT and other Hanford Site Contractors to discuss issues related to the employment of the construction workforce at Hanford.

Release of Protected Information – MSA HR conducted an interface meeting with HPMC Corporation Management (Hanford's occupational medical services provider) to discuss areas of concern, and brainstorm improvement opportunities related to the authorization for release of protected information as it pertains to the Labor Assets Management Program (LAMP). The recommendations provided at the interface meeting resulted in a clarification to the release of medical information as it relates to the Washington Law against Discrimination or the Federal Americans with Disabilities Act.



LOOK AHEAD

Over 65 Health Reimbursement Accounts – MSA Total Compensation staff are finalizing changes to the system for the over age 65 Health Reimbursement Accounts. Items to complete include finalizing contract and plan document language, creating communication pieces, and reviewing the internal processes to ensure a seamless transition.

MAJOR ISSUES

None to report.

SAFETY PERFORMANCE

There were no OSHA recordable injuries reported by Human Resources staff in April. There were no first-aid injuries reported, nor any vehicle accidents reported.

BASELINE PERFORMANCE

Table HR-1. Human Resources Operations Cost/Schedule Performance (dollars in millions).

Fund Type	April 2017					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
Site-wide Services (SWS)	\$0.6	\$0.6	\$0.2	\$0.0	\$0.4	\$18.9	\$18.9	\$18.0	\$0.0	\$0.9
Subtotal	\$0.6	\$0.6	\$0.2	\$0.0	\$0.4	\$18.9	\$18.9	\$18.0	\$0.0	\$0.9

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 [3001.06.02, Human Resources])

Current Month (CM) Cost Variance (CV) (+\$0.4M) – The favorable April CV is primarily attributable to the incorporation of Contract Modifications 587 and 588. These modifications definitized the FY 2016 labor and pension adders, and were incorporated into the baseline as a current month entry April 2017.

Contract-to-Date (CTD) CV (+\$0.9M) – The favorable CTD CV is a result of the ongoing cost credits received by the SWS Pension Plan account, from the Hanford Site Pension Plan trust fund.

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Information Management

Todd Eckman, Vice President

Monthly Performance Report

April 2017



One Day Kaizen Blitz to Develop a Data Call Process



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INTRODUCTION

Mission Support Alliance, LLC's (MSA) 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

BUSINESS OFFICE

Data Call Process Kaizen – A team of internal and external process owners and customers participated in a one day kaizen blitz with the goal of developing an efficient and effective Information Management Data Call process to include optimization of resources and standardization of requests. Several challenges existed within the current process, including: multiple data sources and inputs, lack of process standardization, unclear roles and responsibilities, and a high level of manual processing. A Get-to-Excellence plan was created to ensure successful implementation of the new process. Actions include utilization of Lower Level Task Order (LLTO) numbers to assist with accurate cost tracking, enhanced communication between request originators and processors, creation of a central data repository, and development of several tools which will allow for automation in portions of the process.

UNCLASSIFIED CYBER SECURITY

IM/Leidos Discussions – Cyber Management and the IM Vice President met with Leidos (one of the core subcontractors forming the MSA contract team) regarding MSA's Cyber group scope and capabilities. Discussion focused on the areas where Leidos may be able to provide corporate cyber assistance. The areas of Industrial Control Systems and Change Management were identified where Leidos' cyber personnel could be utilized.



NETWORK AND COMPUTING SERVICES

Thin Client Migration Project – In April, MSA procurement processed and completed the order for the 350 thin client computers that are needed for this project. The thin clients have an expected delivery date of May 10, 2017. The project schedule has been updated to reflect the delivery date, and plans are being made for deployment. These replacements will facilitate the complete elimination of the older P20 thin clients from the Hanford site.

Windows 10 Upgrade Project – MSA IM successfully set up a Windows 2016¹ server with the latest version of WSUS (Windows Server Update Services). This new server is a required component of the Windows 10² upgrade project because the old version does not have full Windows 10 support. A small group of computers has been assigned to the new server for testing of the Windows 10 Anniversary upgrade, and initial testing is indicating positive results.

CONTENT AND RECORDS MANAGEMENT

Facilities Modification Package – MSA's Content and Records Management (CRM) team completed work on the facilities modification package (FMP) (i.e., engineering package [EP]) workflow. The workflow was a joint venture of MSA and CH2M HILL Plateau Remediation Company (CHPRC) Engineering to improve and automate the existing paper-based FMP process. The new FMP workflow increases functionality by adding the ability to revise or cancel an existing FMP package. The cradle-to-grave electronic automation for the FMP process supports both the MSA and CHPRC movement to electronic records.

Major Photography Management Project – The CRM team continued work on the historical photography collection, by completing 2 photographic reference binders containing 1,493 line entries. The MSA photograph staging area cleanout is also progressing, with the goal of reducing the potential for duplicating photographic records. The folder structure in the staging area is set up by box number, corresponding to the physical box that was sent to the National Archives and Records Administration (NARA), and the box in the Integrated Document Management System (IDMS) Electronic Records.

¹ Windows 2016 is a server operating system developed by Microsoft as part of the family of operating systems

² Windows 10 is a personal computer operating system developed and released by Microsoft as part of the family of operating systems.



LOOK AHEAD

Washington Closure Hanford (WCH), LLC Records Transfer – MSA CRM staff participated in a customer support meeting with WCH, Records Management, IM, MSA Information Technology (IT) and Human Resources staff to discuss turning over WCH records to MSA at the end of the WCH contract. WCH plans were to transfer approximately 12,000 records to the Integrated Document Management System in two stages. The first stage occurred in September 2016, at the end of the WCH contract; the second stage is planned for mid-2017, to allow for the final records to be completed.

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 later this year.

Site Storage and Infrastructure Refresh Project – The IM organization has committed to upgrade and refresh site storage hardware. This operational project aims to reduce the IT footprint at Hanford and provide better performance to users by taking advantage of the latest advances in storage technology. Based on the selection of a technology solution by the project team in early February, procurement activities were initiated. The procurement documents were delayed in order to secure a Terms and Conditions return clause concerning minimum performance requirements. The extension of procurement activities will not impact the project schedule.

Wireless System Replacement Project – The project to replace the current Worldwide Interoperability for Microwave Access (WiMax) wireless system with the WiFlex system (current flexible wireless technology) is continuing. Design of the core system is complete; installation of 2.1 MHz radio equipment at 506BA at the 180-foot level is being scheduled. This will be the first radio installation for the project other than test radios. This project is being coordinated with a Washington River Protection Solutions (WRPS) project to install a wireless public address system, message reader boards, tone alert radios, and video display monitors in and around the Hanford site tank farms.

Key Performance Goals (KPG) Dashboard Revision – IM is working on the development of the Fiscal Year (FY) 2017 Work Plan change to the Department of Energy, Richland Operations Office KPG dashboard. This change will tie the Operations KPG 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 KPG.



MAJOR ISSUES

None to report.

SAFETY PERFORMANCE

There were no OSHA recordable injuries reported in April. There were four first-aid injuries reported, one employee suffered wrist pain, and three employees experienced illness due to exposure to carpet glue. No vehicle accidents were reported during the month.

BASELINE PERFORMANCE

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

Fund Types	April 2017					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0020 - Safeguards & Security	\$0.5	\$0.5	\$0.2	\$0.0	\$0.3	\$14.1	\$14.1	\$16.7	\$0.0	(\$2.6)
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	\$3.8	\$3.8	\$1.6	\$0.0	\$2.2	\$232.7	\$232.7	\$216.4	\$0.0	\$16.3
Subtotal	\$4.3	\$4.3	\$1.8	\$0.0	\$2.5	\$247.1	\$247.1	\$233.4	\$0.0	\$13.7

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

BASELINE PERFORMANCE VARIANCE

Current Month (CM) Cost Variance (CV) (+\$2.5M) –

CM CV – RL-20 (+0.3M) – The favorable cost variance is primarily because of the current month point adjustment due to contract modifications 587 and 588 relating to the definitization of labor and pension adders from fiscal year (FY) 2016. Impact is \$201K.

CM CV - Site-Wide Services (SWS) (+\$2.2) – The favorable CM CV is because of savings associated with the self-performance of Software Engineering Services, as well as the current month point adjustment due to contract modifications 587 and 588



relating to the definitization of labor and pension adders from FY 2016. Impact is \$1.6M.

Contract-to-Date (CTD) CV (+\$13.7M) – 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.

CTD CV – RL-20 (-\$2.6M) – The CTD CV in this account is primarily due to the approved funding and IIP scope being divergent from the baseline. In particular, the baseline budget does not include Unclassified Cyber Security. The unfavorable CTD CV will continue, and expenditures will be in accordance with approved funding and IIP scope.

CTD CV – Site Wide Services (+\$16.3M) – The CTD CV in these SWS 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;
- IT Cross Functional Services;
- Information Systems;
- Business Management Systems;
- IM System Work Portal;
- Hanford Site Emergency Alerting System;
- Long-Term Storage;
- Major Collection Management;
- Information Resources and Content Management;
- Multi-Media Services;
- Geospatial;
- Mail Services.



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

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Portfolio Management

Steve Young, Vice President

Monthly Performance Report

April 2017



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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 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

EMTRAX Upgrade – On April 6, 2017, MSA received a request from RL to implement the EMTRAX budget execution tool which was previously hosted at the Oak Ridge, TN site. The automated tool allows budget analysts to manage and track budgets at the lower level control points for new obligational authority (NOA), prior year recovered funding and beginning uncosted. The budget tool provides the analysts with the capability to see at any given time where the funding has been authorized, how much is left and, what is left in reserve. RL required an implementation date of May 1, 2017 in order to meet DOE Environmental Management (EM) deadlines, and to ensure accessibility by RL Budget and Finance once the system was turned off in Oak Ridge.

PFM was given the lead within MSA. Recognizing the need to fast track the project, a team was assembled, and discussions with the RL users and the Oak Ridge technical support team were initiated. The supporting documentation and code from Oak Ridge were acquired, and a streamlined approval process was created to ensure the required deadline would be met. PFM received the software code from the Oak Ridge support team on April 14, 2017 which reduced the development time to two short weeks. PFM reconfigured the application so that it could function locally within the Hanford Local Area Network environment as a standalone system. The capabilities of the original EM wide system were maintained and the upgraded EMTRAX system was delivered to the RL Assistant Manager of Business and Financial Operations (AMB) for testing. All comments and questions were resolved with final customer acceptance on April 28,



2017. The upgraded RL-specific software was deployed to the production environment as required, on May 1, 2017.

Dashboards Activities – Actions and activities in April included the following:

- **Conduct of Operations (CONOPS) Required Reading Dashboard** – Enhancements to the CONOPS Required Reading dashboard were released ten days ahead of schedule on April 27, 2017. The Required Reading dashboard is designed to display real-time metrics on assigned reading and the timeliness of completion. The CONOPS dashboard suite is designed to ensure that all CONOPS data is readily available for both MSA and RL staff.
- **Report Input Tool (RIT)** – PFM completed development of the MSA RIT which will be used by subject matter experts (SMEs) to enter in month reporting analysis and data for multiple MSA dashboards. Testing was completed successfully. Upon approval by the Production Readiness Review Board (PRRB), deployment is anticipated before June.
- **Quality Assurance (QA) Audit Performance Dashboard** – PFM completed development and initiated customer testing on the RL Quality Assurance (QA) Audit Performance dashboard. The Assistant Manager for Safety and Environment customer provided feedback with new requirements which are currently being evaluated. The dashboard is designed to display real-time status of multi-year RL- and contractor-planned and completed QA audit and audit-related activities. Data inputs include relevant information planned and identified in the annual RL Integrated Evaluation Plan (IEP). This information, in conjunction with the contractor planned activities, will be used to formulate triennial long-range planning matrices. The matrices will show how planned QA audits and audit-equivalent activities comply with DOE QA program requirements (NQA-1 18 criteria), on a triennial basis.

Annual Hanford Lifecycle Scope, Schedule and Cost Report (Lifecycle Report) – PFM facilitated the April 18, 2017 Project Managers Meeting (PMM) so that DOE could present its evaluation to delete the 2018 Lifecycle Report Tri-Party Agreement (TPA) Milestone, and instead develop a 2019 Lifecycle Report. The Washington State Department of Ecology (Ecology) has disagreed with the DOE request; instead Ecology requested a 2018 Lifecycle Report, and proposed extending the due date by 8 months, from January 31, 2018 to September 30, 2018. Ecology also proposed deleting the 2019 Lifecycle Report TPA Milestone. The U.S. Environmental Protection Agency agreed that it was time for the DOE Office of River Protection to update its current planning in a 2018 Lifecycle Report, and also supported deleting the 2019 Lifecycle Report.



Decision Management – PFM continues to be responsible for administering all actions associated with baseline management through the Hanford Contract Alignment Board (HCAB). Actions completed this period were as follows:

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

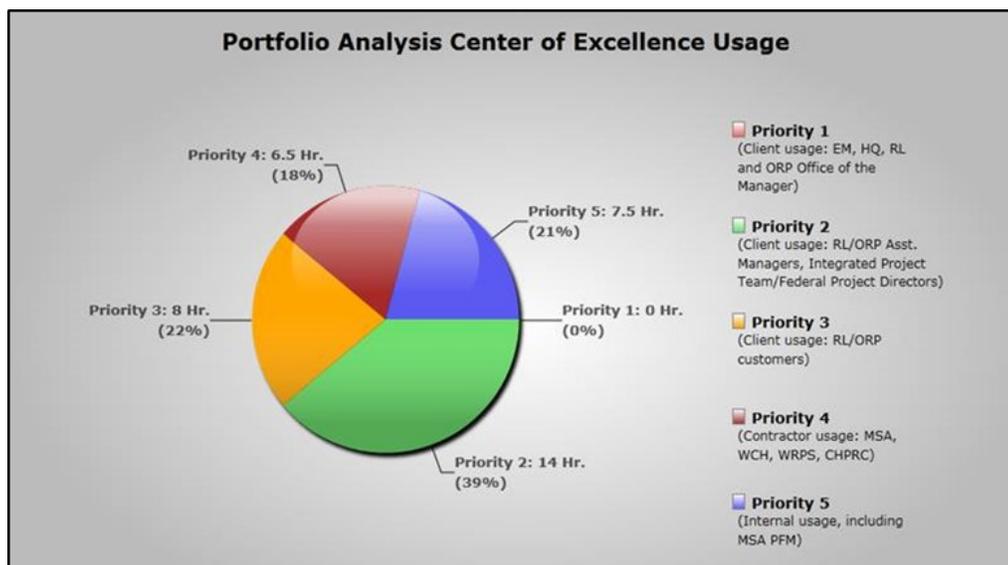
* DSF – Decision Summary Form

** IST - Integrated Support Team

Integrated Technical Data-mart (ITD) – On April 19, 2017 PFM imported and consolidated contractor earned value data sets in the ITD for the month of March to assist the RL Assistant Manager for River and Plateau staff in analysis of performance metrics.

Also in April, work continued with MSA Real Estate Services to secure a real-time integrated data feed for facility data. A consolidated view of Caretaker and Hanford Site Structure List (HSSL) data was implemented. Future tasks include creating an automated import feed into the ITD. The data is utilized by the Geo-Visualization (GeoVis) tool and the Baseline Change Request Upload module in the Scope Management Information System. The real-time data integration will 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 April are displayed in the chart below:





In support of the RL relocation to the Stevens Center business park, PFM personnel completed an estimate for the construction of the “Satellite” PACE infrastructure and integration. The estimate was provided to RL via MSA Contracts. Plans are to build the new facility with similar capabilities of the current PACE, which will allow utilization of PFM-developed tools for strategic planning. This approach will further expand capabilities of MSA now and into the next contract.

LOOK AHEAD

CONOPS Hazard Control Dashboard – PFM has begun development of the CONOPS Hazard Control dashboard. The dashboard will provide metrics on Lock Out/Tag Out (LOTO) Performance and Electrical Utilities Clearance.

CONOPS Programmatic Dashboard – In April, PFM began data reconciliation and database design for the MSA CONOPS Programmatic dashboard with the purpose of displaying metrics on Stop Works, Occurrence Reporting, Backlog Trending, and Schedule Adherence (Managed Tasks). This new dashboard will provide the capability to generate reports for RL.

Maintenance Dashboard – The data capture process and database design was initiated for the MSA Maintenance dashboard. Also, development began on a required Administration Module. The purpose of the dashboard will be to display metrics on Schedule Adherence (Managed Tasks), Loaning Labor, Backlog Trending, and Performing Maintenance while also providing the capability to generate reports required by RL.

Procedures Dashboard – PFM finalized the mockup for the MSA Procedures dashboard. The dashboard will display metrics on open actions and periodic reviews.

Procurement Dashboard and Reports – At the request of RL, PFM finalized changes to the Procurement dashboard and reports based on small data changes that affect the Assistant Manager for Business and Financial Operations business processes. The revisions are currently being reviewed and tested by the customer. Once approved, a release date will be scheduled. The dashboard provides a snapshot of current Procurement data and business process “next steps”. It automatically generates several reports that were time intensive to create manually.

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 April 2017.

BASELINE PERFORMANCE:

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

Fund Type	April 2017					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 Hanford	\$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	\$1.6	\$1.6	\$0.3	\$0.0	\$1.3	\$55.0	\$55.0	\$47.9	\$0.0	\$7.1
Subtotal	\$1.6	\$1.6	\$0.3	\$0.0	\$1.3	\$56.8	\$56.8	\$49.5	\$0.0	\$7.3

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

BASELINE PERFORMANCE VARIANCE

Current Month (CM) Cost Variance (CV) (+\$1.3M) – The CM underrun is primarily due to the incorporation of Contract Modifications 587 and 588. These modifications definitized the FY 2016 labor and pension adders, and were incorporated into the baseline as a current-month entry during April 2017.

Contract-to-Date (CTD) CV (+\$7.3M) – 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

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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 the 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 External Affairs department provides a myriad of communication functions for U.S. 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:

Source Inspection Services – MSA’s activities in April were as follows:

April 2017	Current Month			Year to Date
	CH2M HILL Plateau Remediation Company (CHPRC)	Washington River Protection Solutions LLC (WRPS)	Others	
Source Inspections	1	3		50
Annual Desk Reviews				5
Supplier Evaluations/ Audits			1	13
First Article Inspection				0

Acquisition Verification Service (AVS) Activities – MSA’s AVS activities in April were as follows:

April 2017	Current Month			Year to Date
	CHPRC	WRPS	Others	
Re-certifications			5	30
Annual Evaluations		7	3	39
Visual Acuity Evaluations			2	13

Performance Oversight Activities – In support of the Contractor Assurance System (CAS), and MSA Performance Incentive 2.1.3, “Demonstrate effective safety and quality management to include, but not be limited to, a robust CAS,” MSA completed the following deliverables:

- “Develop criteria by April 30, 2017 to measure technical performance and timeliness related to Causal Analysis of higher significance conditions, events, and adverse trends,” was completed on April 26, 2017.
- “Develop criteria by April 30, 2017 to measure technical performance and timeliness related to corrective action development, implementation and effectiveness reviews,” was completed on April 26, 2017.
- “Develop criteria by May 31, 2017 to measure technical performance related to Operating Experience/Lessons Learned,” was completed on April 26, 2017.

EXTERNAL AFFAIRS

Support to Hanford Live 2017 – MSA helped organize, facilitate and execute Hanford Live 2017 – an Online Conversation about Cleanup, Progress and Challenges, a webinar public outreach event. The event drew in more than 200 registrants, 1,500 Facebook



participants, and questions from participants nationwide (including some from Japan and the United Kingdom). In lieu of a public meeting, April's format involved a broadcast with presentations from the Hanford agency managers, followed by questions and answers from the public via social media.

Hanford Site Tours – Registration for the 2017 Hanford Site Cleanup Tours has begun. This year's tour program comprises 20 tours, with 20 visitors per tour. The tour season runs through September.

In April, MSA External Affairs (EA) staff prepared and executed a Hanford Site tour for the Department of Labor's Energy Employees Occupational Illness Compensation Program Act. In addition, Communications and EA staff assisted in the planning and execution of two high-level DOE tours. One was a three-day Hanford Site tour for Sue Cange, DOE Acting Assistant Secretary, Environmental Management (DOE-EM), Betsy Connell, Chief of Staff, DOE-EM, and Stacy Charbonneau, DOE Associate Principal Deputy Assistant Secretary, Field Operations. The second tour was a one-day tour for the Advisory Board on Toxic Substances and Worker Health for the Department of Labor. Communications and External Affairs accompanied each tour and provided logistics support.

Hanford Speakers Bureau Program – Approximately 60 presentations have been scheduled as part of the 2017 Hanford Speakers Bureau program, including presentations at middle and high schools and civic organizations (including Rotary and Kiwanis clubs) across Washington and Oregon. The updated presentation includes aspects of the RL 2020 vision.

ENGINEERING

Engineering Staffing Actions – To provide a higher level of engineering support to reduce the backlog of fire systems maintenance activities, staffing actions to fill open positions were initiated in March 2017, and continued in April.

Design Services and Project Support – In order to provide dedicated engineering staff in early-stage project development and pre-conceptual design activities, a new engineering group was approved and new positions are being filled. The name of the group is "Design Services and Project Support." The staffing level of this group is expected to be about eight Full-Time Equivalent personnel. Staffing activities are continuing to develop this organization; to date, two engineers have been identified for placement in the group.



LOOK AHEAD

New Diesel-Powered Water Pump Skid Procurement – For restoring back-up fire water pumping capability in the 300 Area. The procurement of a new diesel-powered water pump skid was initiated in March 2017, and procurement award is expected in May. Engineering has ensured communication of the action plan and path forward to the primary customer, Pacific Northwest National Laboratory (PNNL). PNNL has agreed that MSA's solution will meet requirements.

Interface Meetings with Engineering Personnel – To ensure coordination of change management processes during the implementation of the facility modifications necessary to install replacement Radio Fire Alarm Reporter (RFAR) units, interface meetings with Washington River Protection Solutions LLC (WRPS) and CH2M HILL Plateau Remediation Company (CHPRC) engineering personnel have begun. This work is being performed as a part of Project L-761, *Replace RFAR*. Also as part of Project L-761, a technology re-evaluation study was initiated in March 2017. The study has been engaging all stakeholders and customers to confirm the correct technology section for this project. Meetings with stakeholders and personnel key to path forward decisions are on-going.

MAJOR ISSUES

None to report.

SAFETY PERFORMANCE

In April there were no Occupational Safety and Health Administration (OSHA) Recordable injuries or First Aid Injuries reported by the President's Office.

BASELINE PERFORMANCE

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

Fund Type	April 2017					Contract-to-Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
Site-wide Services	\$2.2	\$2.2	\$0.7	\$0.0	\$1.5	\$69.6	\$69.6	\$56.5	\$0.0	\$13.1
Subtotal	\$2.2	\$2.2	\$0.7	\$0.0	\$1.5	\$69.6	\$69.6	\$56.5	\$0.0	\$13.1

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) (+\$1.5M) – The favorable CM CV is primarily attributable to the incorporation of Contract Modifications 587 and 588. These modifications definitized the FY 2016 labor and pension adders, and were incorporated into the baseline as a current-month entry during April 2017.

Contract-to-Date (CTD) CV (+\$13.1M) – 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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MISSION SUPPORT ALLIANCE

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Public Works

Todd Synoground, Vice President

Monthly Performance Report

April 2017



Removing 11 ½ miles of distribution aerial lines



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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

Removal of Electrical Lines – On April 13, 2017, EU completed one of its most significant FY 2017 tasks, restoration of a section of the pristine 100 Area Columbia River corridor by removing 11½ miles of 13.8kV distribution aerial lines. Conductors, cross arms, and associated hardware were removed from over 300 poles, and will either be grouted in large containers or shipped to the Environmental Restoration Disposal Facility for disposal. The poles will be removed after this year's fire season, and after additional ecological and cultural reviews have been completed. Power to two air monitors, two weather stations, a street light at the intersection of Routes 1 and 2, and electrical service to the 100F and 100H facilities were also removed. Temporary power was established for cocooned reactors F and H. The completion of this task will improve reliability and reduce maintenance, as well as mitigate other risks including outages, fire hazards, lightning strikes, and equipment failure.



Removal of 11 ½ miles of electrical distribution aerial lines

Transformers Modified – Following a recent engineering analysis at Washington River Protection Solutions' 241-U Tank Farm, the decision was made to downsize three pole-mounted transformers from 300kVA to 75kVA. The task, completed on April 21, 2017, modernized the poletop service by adding a new fiberglass cross arm, hardware, bushing

covers, arrestors, and cutouts, thereby extending the equipment life by as much as 30 years. EU also upgraded the components, including the transformer riser wire aged by weather and wind fatigue, mitigating potential outage and arc-flash risks. Additionally, the distance between the overhead lines and the transformers was increased to provide safer access for future maintenance. Downsizing these transformers has the added benefit of reducing the Site carbon footprint.



Electrical pole before and after upgrades

Repair of Substation Column – While performing preventive maintenance (PM) on the A6 Substation, EU linemen discovered a three-foot crack on one of the steel structural yard columns that supports a 230kV air-break disconnect switch. EU Engineers found that water inside the column caused the structure to crack during the recent harsh freezing winter conditions. Repairs were completed April 3 – 4, 2017, by welding an angle iron to the column. EU’s PM program continues to pay dividends, as repairs are identified before issues and premature failures arise.



Repair of cracked column at A6 Substation

Aerosol Cans Prepared for Disposal – On April 10, 2017, 55-gallon waste drums filled with aerosol cans were prepared for disposal at the Centralized Consolidation Recycling Center (CCRC). DOE-RL mandates continuous improvement in environmental stewardship and sustainability as required by regulatory compliance and the MSA

contract. Therefore, EU personnel are provided with the means and methods for accomplishing recycling and waste stream handling necessary to minimize environmental impacts.



Aerosol cans prepared for disposal

Replacement of Cathodic Protection System – The big silver water tanks located in 200 East and 200 West provide a vital service that is required for various uses across Hanford’s Central Plateau. These two 1.1 million-gallon water tanks provide drinking water. They also serve as water storage for fire suppression systems and process water for other Hanford contractor facilities. W&SU operates these tanks and conducts periodic inspections on the tank’s access points along with the Cathodic Protection System (CPS). CPS is in place to protect the physical integrity of the tank and its components. A recent inspection helped discover a broken insulator, which was promptly repaired. Such activities supports routine surveillance and correction activities to ensure cleanup deadlines are met by contactors not only in the 200 Areas, but potentially across the Hanford Site.



Broken insulator support on 1.1 million-gallon water tank

Septic Pump Air Vent – In April, W&SU replaced the septic pump air vent at 2607-EP, allowing for proper operation of one of the biggest Large On-Site Septic Systems (LOSS)

on the Hanford Site. This system provides sanitary sewer services to the Hanford Fire Station, Crane & Rigging, Hanford Patrol, and other miscellaneous trailers in 200E.

Water Leak at Canister Storage Building (CSB) – On April 3, 2017, a leak was discovered in the potable water valve near the main entrance to the CSB. Workers had attempted to close the valve on March 30, 2017, in response to a water leak on the north side of the building, but it continued to leak at an estimated three gallons per minute. Water was directed to a concrete collection trench to the east of the valve until the repair was completed.



Water Leak at CSB

Water Service Provided to Mobile Offices – W&SU was tasked with providing water service to mobile office trailers in the 300 Area that would support demolition activities at the 324 Building. W&SU personnel worked with the MSA Maintenance group to coordinate Stationary Operating Engineer (SOE) support and develop disinfection plan strategies for this work evolution. Once the excavation was completed and the valve and piping were exposed, the waterline was confirmed to be a potable water line. Work immediately began on April 7, 2017, to tie in this new water service. The tie-in union was successfully installed, flushed, leak tested, and all piping disinfected. Compliance samples were taken, as well as a second set of bacteriological samples, as part of the disinfection plan to ensure compliance with water safety regulations. The waterline was placed into service on April 10, 2017.

Air Valve Break – On April 5, 2017, an air valve break occurred at the 1901-U caisson valve pit, and an estimated 500 gallons of potable water were released to the ground. A visual inspection of the perlite/vermiculite determined that asbestos was not present. Sampling will still be performed to confirm this visual assumption.



Air valve break at 1901-U caisson valve pit



Road Maintenance – The winter of 2016-2017 impacted the Hanford site roads with increased degradation in the form of pot holes and edge breakage. Since October, crews have been addressing the primary routes of travel as the number one priority, utilizing 27 tons of asphalt patch material. To date, more than 150 potholes and numerous edges of the roads have been patched. Funding has also been allotted for a second team to assist in performing crack sealing in both the 200 West and East areas. One crew will be working in the 200 West area, and a second crew will begin work in the 200 East area once the asphalt pothole repairs have been addressed. Thirty-six total lane miles of sealing will be completed in this year’s campaign.

Solid Waste Landfill – The solid waste landfill is currently being worked as time allows. To date, crews have hauled 556 loads of dirt to the landfill. New teamsters are being recruited to support the project full time.

LOOK AHEAD

Assessments of Institutional Controls (ICs) and Waste Information Data System (WIDS) – The annual assessments/inspections for all IC and active WIDS sites for the River Corridor was initiated on April 18, 2017. These annual activities include field activities for WIDS inspections, IC assessments, radiological surveys, and revegetation monitoring for the entire River Corridor. The effort is expected to take approximately six-weeks to complete. A field briefing occurred on April 17, 2017, involving MSA Safety, Industrial Health, Cultural, and Ecological organizations to ensure the field team had appropriate information.

Natural Gas Pipeline Environmental Impact Statement (EIS) – MSA RES has been meeting with RL, Cascade Natural Gas Corporation of Kennewick, WA, and associated subcontractors to prepare for additional cultural and ecological resource reviews for a modified natural gas pipeline route. The gas pipeline will be addressed in a revised National Environmental Policy Act (NEPA) EIS, a 2017 Key Performance Goal for RL. Civil surveys, ground scans, and other preparations are now being arranged by RES to support approximately 25 cultural resources shovel-test probes in and near the southern border of the 300 Area, as well as in a region west of the 300 Area. Cultural and ecological resource surveys will be performed by subcontractors to Cascade Natural Gas.

Removal of Mobile Office – RES has initiated characterization and removal of mobile office 315, to be complete by June 29, 2017. To start this effort, workers began removal of lead bricks that were stored in the trailer. Fluorescent lamps, mercury thermostats, Freon, oil, and miscellaneous debris will then be removed, followed by utility disconnects.



Trailer in preparation for excessing

MAJOR ISSUES

Nothing to report.

SAFETY PERFORMANCE

During the month of April, there were no Occupational Safety and Health Administration Recordable injuries or First-Aid cases reported within PW.

BASELINE PERFORMANCE

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

Fund Type	April 2017					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)	\$19.0	\$18.9	\$18.7	(\$0.1)	\$0.2
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 (SWS)	\$6.4	\$6.4	\$4.1	\$0.0	\$2.3	\$273.1	\$273.1	\$322.0	\$0.0	(\$48.9)
Subtotal	\$6.5	\$6.5	\$4.3	\$0.0	\$2.2	\$298.2	\$298.1	\$347.4	(\$0.1)	(\$49.3)

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

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

CM Cost Variance (CV) (+\$2.2M):

Site Wide Services (SWS) CM CV (+\$2.3M) – April’s favorable CV is primarily due to the incorporation of Contract Modifications 587 and 588. These modifications definitized the FY 2016 labor and pension adders, and were incorporated into the baseline as a current-month entry during April 2017. Significant SWS variances include: 3001.02.05 Waste Sampling and Characterization Facility Analytical Services (Readiness to Serve) (+\$0.1M); 3001.04.01 Roads and Grounds (+\$0.5M); 3001.04.02 Biological Controls (+\$0.3M); 3001.04.04 Water Services (+\$0.1M); 3001.04.10.03 Traffic Management (+\$0.1M); 3001.04.10.06 - PW Program Planning, Management & Admin (+\$0.3M); and 3001.04.14 Land Use Planning (+\$1.0M).

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

CTD CV (-\$49.3M) Variances exist in RL-40, RL-41, RL-44, and RL-100 that total (-\$0.3M), and are individually below threshold.

SWS CTD CV (-\$48.9M) Variances included:

3001.04.03 EU – EU is significantly divergent from the baseline. The CTD CV (-\$25.3M) 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. A Maintenance Management Program (MMP) 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 Integrated Investment Portfolio (IIP) scope.

3001.04.04 W&SU – W&SU is significantly divergent from the baseline. The CTD CV (-\$34.9M) 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 MMP, 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 following Work Breakdown Structures:

- 3001.02.05 Waste Sampling and Characterization Facility (+\$4.2M);
- 3001.04.01 Roads & Grounds (+\$1.6M);
- 3001.04.02 Biological Services (-\$0.7M);
- 3001.04.10.01 Sanitary Waste Management and Disposal (+\$0.9M);
- 3001.04.10.02 Laundry Services (-\$0.8M);
- 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 (-\$0.7M);
- 3001.04.14 Land and Facilities Management (+\$6.7M); 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 April 2017



Installing electric actuators in 283 Filter Beds



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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 Project Services. 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

Signs for Department of Energy – On April 13, 2017, Maintenance Services Sign Painters fabricated high-priority signs for the Department of Energy (DOE), Richland Operations Office (RL). The signs, which reflected recent moves by RL personnel, were installed at the Stevens Center complex. The signs were completed prior to a visit by the Acting Assistant Secretary of the DOE Office of Environmental Management.



Signs for Department of Energy

Crane & Rigging Support to Washing River Protection Solutions (WRPS) – MSA Interface Management and MSA Crane & Rigging met with WRPS Interface Management on April 13, 2017. The intent of the meeting was to discuss MSA's ongoing crane support for WRPS's tank farm operations for the remainder of FY 2017. The purchase order was approved for a new 150-ton crane which is scheduled to arrive in August 2017 and is anticipated to be operational by the end of September 2017. WRPS plans on using three cranes in tank farm operations, which will include two 150-ton units and one 135-ton unit.

Support to 251E Sub Station – In April, Maintenance Services Welders provided support at the 251E Sub Station. Electrical Utilities requested support to help repair a freeze damaged support leg.

Angle iron welded to electrical support leg damaged by frost



283W Filter Beds – On April 8, 2017, Maintenance Services, working with MSA Water Utilities, Crane & Rigging, and Safety & Health, completed additional work on the mechanical equipment for filter beds 1 and 2 at the 283 West (W) facility. Work scope included the removal and disposal of the old actuators, cleaning and lubrication of the sliding waste gates on gulleets #1 and #2, and installation of electric actuators. Once the work was completed, filter beds 1 and 2 were filled and tested, with no identified defects.



Electric actuators installed in 283W Filter Beds

Interface Management Tours Crane & Rigging – In an effort to reach out to the MSA groups that they support, MSA Interface Management scheduled several Site tours for the month of April. On April 5, 2017, Interface Management toured the MSA Crane & Rigging Facility to gain a better understanding of their need for a rigorous safety culture considering the dangers associated with hoisting activities. The safety standards adopted by MSA Crane & Rigging far surpass anything in their industry. The perspective gained from this Site tour will be used by MSA Interface Management to help MSA Crane & Rigging navigate future customer issues.

LOOK AHEAD

None to report.

MAJOR ISSUES

None to report.

SAFETY PERFORMANCE

During the month of April, there was one Occupational Safety and Health Administration (OSHA) Recordable injury reported within SS&IM. An employee received a small fracture when the drill being operated bound up, causing the right



hand to be thrown into a casing. Additionally, there were four minor first-aid cases reported:

- A truck passenger was hit in the neck and shoulders when a heavy load hit the front of a truck bed;
- An employee reported arm discomfort from previous day's activities;
- An employee received a back strain after moving a large object up stairs;
- An employee scraped a forearm on a metal toe board.

In addition, there was one minor-injury vehicle accident reported in April. An employee suddenly stopped, causing the load in back of the vehicle to hit the front of the bed.

BASELINE PERFORMANCE

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

Fund Type	April 2017					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	\$3.5	\$1.9	\$1.9	(\$1.6)	\$0.0	\$64.5	\$63.0	\$62.7	(\$1.5)	\$0.3
Site-wide Services	\$0.6	\$0.6	\$0.2	\$0.0	\$0.4	\$41.4	\$41.4	\$44.9	\$0.0	(\$3.5)
Subtotal	\$4.1	\$2.5	\$2.1	(\$1.6)	\$0.4	\$121.7	\$120.2	\$122.0	(\$1.5)	(\$1.8)

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

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) (-\$1.6M)

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

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

RL-0040 CM SV(- \$1.6M) – The unfavorable CM SV is due to CENRTC Procurement *EC04, Receive 150 Ton Crane*, being delayed in purchase/delivery until August.

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

Contract-to-Date (CTD) SV (-\$1.5M)

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 (-\$1.5M) – The unfavorable CTD SV is due to CENRTC Procurement *EC04, Receive 150 Ton Crane* being delayed in purchase/delivery until August.

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

CM Cost Variance (CV) (+\$0.4M)

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

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

RL-0040 CM CV (\$0.0M) – The CM CV is within threshold.

Site-wide Services (SWS) CM CV (+\$0.4M) – The SWS favorable CV for April is primarily attributable to the incorporation of Contract Modifications 587 and 588. These modifications definitized the FY 2016 labor and pension adders, and were incorporated into the baseline as a current-month entry during April 2017.

CTD CV (-\$1.8M)

ORP-0014 CTD CV (+\$1.7M) – The favorable CTD CV is due to Project L-858, *200E 13.8kV ED Dsgn & Bse Svc Ld Reconfig*, taking advantage of preliminary conceptual design activities completed earlier. High quality conceptual design for an abbreviated version of Definitive & Final Design resulted in 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 fell under the Tank Farms Environmental Impact Statement. Numerous meetings were held last year with ORP



and WRPS on this project. Project design, cost estimates, facility roles and responsibilities, and project scope/ schedule, were continually discussed in the course of these meetings. This enabled activities that normally are more labor-intensive to be accomplished quickly and with less cost. In addition, the Construction Subcontractor's bid came back significantly lower than planned (+\$1.2M). Variances for other ORP-14 projects totaling (+\$0.5M), are individually below threshold.

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

RL-0040 CTD CV (+\$0.3M) – The favorable CTD CV is within threshold.

Several prior year Infrastructure Reliability Projects overran:

- 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);
- 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)
- Electrical Utilities System capital equipment not related to construction (CENRTC) (-\$1.0M)

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

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

- L-525, *24in EW Line Replacement - 2901Y to 200E*, and its sister project, L-840, *24in EW Line Replacement 2901Y - 200W*, experiencing a modest savings for site clearing work due to favorable site conditions and the award of the construction subcontract for substantially 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 (+\$1.6M each).

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-753, *Maintenance Shelters for Crane & Rigging* (+\$1.1M)
- Hanford Fire Department CENRTC (+\$2.8M).

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

SWS CTD CV (-\$3.5M) – The CTD CV is due to the deltas between the contract baseline and the approved and funded 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.



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Training & Conduct of Operations

Steve Metzger, Vice President

Monthly Performance Report April 2017



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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 (CT) 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, *Conduct of Operations Elements and Requirements*. This function also assesses and verifies implementation of CONOPS at MSA-managed projects and facilities.

The MSA Maintenance Management program 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), by applying availability, reliability and maintainability principles and practices to both the plant upgrade and Operation and Maintenance Program phases of Hanford Infrastructure Assets.

MSA Work Management program incorporates the principles of Integrated Safety Management and Environmental Management (EM) System at the activity level through the development and use of technical work documents.

KEY ACCOMPLISHMENTS

FORMALITY OF OPERATIONS

Information Shared – In April, CONOPS briefings (Control of Equipment & Systems, Control Area Activities, and Communications) were provided, and presented to Electrical Utilities (EU) and Water and Sewer Utilities (W&SU) and maintenance



services field work Supervisors. The final report for EU and W&SU effectiveness reviews of the CONOPS baseline assessments were also issued.

MSA CENTRAL TRAINING

Central Training activities in April included the following:

- The Course Management System training report tool designed to give managers and supervisor's real time access to view scheduled training and physicals is nearly complete. This tool will be available on the MSA Central Training web site.
- Evaluations are being conducted for courses owned by MSA Central Training to determine which courses will need to meet the 508 compliance requirement.
- MSA Central Training is working with subject matter experts from Waste Management, HazCom, and Emergency Preparedness to redefine the company-wide Facility Emergency and Hazards Information Checklist (FEHIC) training program.
- MSA Hanford External Dosimetry Program has requested MSA Central Training support to standardize and document existing training processes. Evaluations have begun; the goal is to complete the training evaluation and documentation by the end of August 2017.
- MSA Central Training instructors provided support to the HAMMER facility by providing 7 first aid classes.

MAINTENANCE PROGRAM

Maintenance Management Program Plan – Maintenance Management has completed 34 of 69 milestones associated with Maintenance Management Program Plan, most notably was revised company-wide dashboard report.

HAMMER ACTIVITIES

High Capacity Trend Continues – HAMMER experienced another month with over 5,000 student days of training. HAMMER staff recorded 5,151 student days and 312 class sessions in April 2017, surpassing April 2016 by 16.8 percent in student days and 9.1 percent in class sessions. Schedules for the upcoming 2017 year have been filling rapidly with June and July months already at capacity.

HAMMER Steering Committee Meeting Held in Washington, D.C. – The spring 2017 HAMMER Steering Committee meeting conducted on April 6, 2017, in Washington,

D.C. was a tremendous success. The meeting, chaired by General Presidents Eric Dean and Dan Stepano, kicked off the HAMMER 20-year anniversary celebration reminding participants to plan for a formal celebration this October. Briefings were given on each of the major HAMMER program areas, as well as by each subcommittee, Federal Agency, Union, and Contractor.

Chalk River Nuclear Complex Training Managers Tour – On April 6, 2017, CH2M HILL Plateau Remediation Company personnel hosted two training managers from the Chalk River Nuclear Laboratories (CNL) in Ontario, Canada as they toured HAMMER as part of a Hanford tour. They showed great interest in HAMMER’s respiratory protection and mask fit training programs, as well as the Radiological, HAZWOPER, and Lockout/Tagout training programs. They were impressed with HAMMER’s campus, props, and worker trainer model. The training managers expressed an interest in collaborating to have their instructors attend HAMMER training classes to improve their own quality of training at their facilities.



HAMMER Steering Committee 2017 spring meeting

Hanford Live 2017 Support – On April 12, 2017, HAMMER provided facility support for the Hanford Live interactive online conversation providing the community with the most current information regarding Hanford Site cleanup progress and challenges. The virtual webinar was conducted the evening of April 12, 2017, and consisted of presentations by the Tri-Party Agreement agencies including the DOE Richland Operations Office (RL); DOE Office of River Protection (ORP); U.S. Environmental Protection Agency; and the State of Washington Department of Ecology Nuclear Waste Program. HAMMER staff were recognized for their efforts in preparing and securing the facility for the event.

Portland General Electric Brigade Live Fire Training – HAMMER supported the Portland General Electric (PGE) Brigade on April 11-13, 2017 as they conducted three days of live fire training. The training activities advanced the knowledge, tactics, and proficiency of their onsite brigade. The Boardman Coal Plant, operated by Portland General Electric, is one of PGE’s largest power stations producing 15 percent of the company’s electricity (equivalent to about 30 percent of Portland’s power). The plant

operates 24/7 and experiences two to 10 significant coal fires each year. Fire events at the plant must be addressed without shutting down, making their training at HAMMER extremely valuable.

Susan Cange, Acting EM-1, Tours HAMMER – On April 17, 2017, HAMMER staff provided a campus tour for Susan Cange, DOE Acting Assistant Secretary (EM-1) and her staff, as part of a larger tour consisting of visits to the Hanford Site and Pacific Northwest National Laboratory. The tour included presentations on HAMMER's Lockout/Tagout training and the Construction Worker Safety Training Program (CWSTP), as well as a Respiratory Protection demonstration provided by worker trainers. Cange was impressed by HAMMER's CWSTP, standardized sitewide training, worker trainers, and subject matter experts and complimented HAMMER for its dedicated staff.

48th Chemical Brigade Training – On April 22-29, 2017, HAMMER hosted approximately 200 soldiers of the 20th Chemical, Biological, Radiological, Nuclear, and Explosives (CBRNE) Command's 48th Chemical Brigade, headquartered in Fort Hood, Texas. The brigade deployed to HAMMER to conduct a portion of the joint nation chemical, biological, radiological and nuclear exercise, DRAGON FIRE. The U.S. soldiers were joined by a contingent of German Bundeswehr ('Federal Army') CBRN Command soldiers from Bruchsal, Baden-Wurttemberg for this exercise.



Training exercise at HAMMER

DRAGON FIRE exercised key elements of the units' missions: reconnaissance, identification, and decontamination. The soldiers utilized HAMMER's Training Tower, Burn Building, Field Exercise Building, Search and Rescue Building, Hazardous Materials Pad, and several open areas. HAMMER staff provided oversight of the activity to ensure the safety of not only the soldiers, but also the Hanford students on campus. Approximately 50 brigade soldiers will return to HAMMER May 7-10, 2017 to complete their radiological training exercise utilizing the bomb pit.

Liquefied Propane Gas (LPG) System Fully Operational – HAMMER staff recently completed work on the LPG system. The system is fully operational for the first time since April 11, 2016 when a stop work was invoked upon the system due to concern for potential corrosion of the underground piping. A thorough evaluation and investigation revealed that there was no corrosion, but minor repairs including upgrades and planned maintenance were conducted during the outage. The system provides propane liquid and vapor for burning at fire props during training and fuels the hot water heaters to heat the Administration and Al Alm Annex buildings.



“Guzzler” truck used to access portions of the LPG system.

17th Annual Washington State HAZMAT Workshop –

The workshop is designed for Washington emergency management agencies, law enforcement and fire first responders, Tribal emergency response and planning departments, and industry/private stakeholders with a role in preparing for and responding to hazardous materials events. The workshop included several courses such as the 25-hour *On-Scene Incident Command* and 16-hour *Hazmat Safety Officer* courses, and an 8-hour *Hazmat Strategies and Tactics* course.

LOOK AHEAD

HAMMER Construction Projects Update – HAMMER recently conducted modifications to the sprinkler and HVAC systems as part of the Al Alm Building locker room conversion project. The fire suppression system was drained requiring the building’s northwest parking lot to be blocked off. Extra fire watch procedures were practiced while the system was down. The project is expected to be complete by May 5, 2017.

MAJOR ISSUES

None to report.

SAFETY PERFORMANCE

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



BASELINE PERFORMANCE

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

Fund Type	April 2017					Contract to Date				
	BCWS	BCWP	ACWP	SV	CV	BCWS	BCWP	ACWP	SV	CV
RL-0040 - Nuc. Fac. D&D - Remainder Hanford	\$1.1	\$1.1	\$0.8	\$0.0	\$0.3	\$46.3	\$46.3	\$58.1	\$0.0	(\$11.8)
Site-Wide Services	\$0.8	\$0.8	\$0.3	\$0.0	\$0.5	\$18.2	\$18.2	\$21.5	\$0.0	(\$3.3)
Subtotal	\$1.9	\$1.9	\$1.1	\$0.0	\$0.8	\$64.5	\$64.5	\$79.6	\$0.0	(\$15.1)

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) (+\$0.8M)

RL-40 – Current Month (CM) Cost Variance (CV) (+\$0.3M) – The favorable CM CV is primarily due to the incorporation of contract modifications 587 and 588. These modifications definitized the fiscal year (FY) 2016 labor and pension adders and were incorporated into the baseline as a current-month entry during April 2017.

Site Wide Services (SWS) – Current Month CV (+\$0.5M) – The favorable CM CV is primarily due to the incorporation of contract modifications 587 and 588. These modifications definitized the fiscal year (FY) 2016 labor and pension adders and were incorporated into the baseline as a current-month entry during April 2017.

Contract-to-Date (CTD) CV (-\$15.1M)

RL-40 – CTD CV (-\$11.8M) – 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 Integrated Infrastructure Portfolio scope. No other potential contributing performance issues are currently identified.



SWS – CTD CV (-\$3.3M) – 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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