

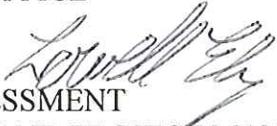


Department of Energy

Washington, DC 20585

MAY 02 2013

MEMORANDUM FOR CHARLENE SMITH
CONTRACTING OFFICER
SAVANNAH RIVER SITE OFFICE

FROM: LOWELL ELY, DIRECTOR 
OFFICE OF PROJECT ASSESSMENT
OFFICE OF ACQUISITION AND PROJECT MANAGEMENT

SUBJECT: Savannah River Remediation, LLC, Contract DE-AC09-09SR22505, Notice of Continuance for the Savannah River Site Office Earned Value Management System Certification

The purpose of this memorandum is to inform you that the Department of Energy (DOE) Savannah River Site Office (SRS) contractor Savannah River Remediation, LLC, (SRR) has successfully demonstrated that its Earned Value Management System (EVMS) continues to be compliant with the ANSI/EIA-748 standards. Compliance is required by the DOE Order (O) 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, and the subject SRR contract with DOE.

During the joint SRS and Office of Environmental Management Office of Project Assessment (EM-53) EVMS surveillance review, conducted between October 29 and November 1, 2012, two Corrective Action Requests (CAR) were noted by the review team to address. One CAR was verified as corrected during the EVMS surveillance review. The second CAR, related to data quality, has been verified as corrected based on acceptable actions taken by the contractor following the review. Attached is the final report from the surveillance for your review and appropriate action.

SRR is required to maintain and execute its EVMS in compliance with ANSI/EIA-748 without deviation. Annually, in conformance with DOE O 413.3B, SRR shall conduct a self-surveillance and submit the self-surveillance report directly to EM-53 and the DOE Office of Acquisition and Project Management (OAPM). Should SRR materially change its EVMS, SRR is to notify you, EM-53, and OAPM in writing.

Attachment

cc: Anna Murphy, SRS
Kenneth Picha, Jr., EM-20
J. E. Surash, EM-50
Johnnie Newson, EM-53



Department Of Energy
Joint Savannah River Operations Office &
EM-53 Office of Project Assessment

EVMS Surveillance Review Report of
Savannah River Remediation LLC



November 2012

SIGNATURE PAGE

 Lenny Mucciario(*)

Lenny Mucciario
Team Lead

AM-53 Office of Project Assessment

04/16/2013

Date

 Anna Murphy

Anna Murphy

Team Lead

Savannah River Operations Office

04/16/2013

Date

(*) on behalf of Lenny Mucciario

TABLE OF CONTENTS

1.0 Purpose.....	3
2.0 Background.....	3
3.0 Review Approach	4
4.0 Review Committee	4
5.0 Findings & Observations	5
6.0 Organization.....	7
7.0 Planning & Budgeting	7
8.0 Accounting.....	10
9.0 Analysis & Reporting	16
10.0 Revisions.....	20
11.0 Documents Reviewed	20
12.0 Control Accounts Reviewed.....	22

Appendix 1: Corrective Action Requests (CARs) & Continuous Improvement Opportunities (CIOs)

Acronyms

ACWP	Actual Cost of Work Performed
AE	Acquisition Executive
ANSI/EIA-748B	The American National Standards Institute/Electronic Industries Alliance-748B
APM	Office of Acquisition and Project Management, MA-60
ARRA	American Recovery and Reinvestment Act of 2009
AUW	Authorized Unpriced Work
BAC	Budget at Completion
BCWP	Budgeted Cost of Work Performed
BCWS	Budgeted Cost of Work Scheduled
CA	Control Account
CAM	Control Account Manager
CAP	Capital Asset Project
CAR	Corrective Action Request
CBBL	Contract Budget Base Log
CIO	Continuous Improvement Opportunity
CLAD	Cumulative Liability & Accounting Database
CPR	Contract Performance Report
CTD	Cost to Date
CWBS	Contract Work Breakdown Structure
DCAA	Defense Contract Audit Agency
DOE	Department of Energy
DWPF	Defense Waste Processing Facility
EAC	Estimate at Completion
EVMS	Earned Value Management System
EVMSD	Earned Value Management System Description
FICA	Federal Insurance Contribution Act
GPP	General Plant Project
LOE	Level of Effort
LW	Liquid Waste
M & O	Management & Operations
MR	Management Reserve
ODC	Other Direct Costs
P6	Primavera 6
PAD	Project Authorization Document
PEP	Project Execution Plan
PMB	Performance Measurement Baseline
RAM	Responsibility Assignment Matrix

SDU	Saltstone Disposal Unit
SLA	Service Level Agreement
SRNS	Savannah River Nuclear Solution, LLC.
SRR	Savannah River Remediation, LLC.
SRS	Savannah River Site
SWPF	Salt Waste Processing Facility
UB	Undistributed Budget
VAC	Variance at Completion
WA	Work Authorization
WBS	Work Breakdown Structure

EXECUTIVE SUMMARY

Purpose & Objective

A joint Savannah River Operations Office and Office of Environmental Management Earned Value Management System (EVMS) surveillance review of the Savannah River Site (SRS) Liquid Waste (LW) contractor, Savannah River Remediation, LLC (SRR) was conducted the week of October 29, 2012. The purpose of the EVMS surveillance is to determine if SRR's certified EVMS continues to meet the requirements and the intent of the American National Standards Institute/Electronics Industries Alliance (ANSI-748B) Standard and its 32 guidelines. The objective is to ensure that SRR meets the requirements of DOE Order 413.3B (DOE O 413.3B) for capital asset projects, and the contract clauses H.14, "Project Control System and Reporting Requirements", and I.86, "FAR 52.234-4 Earned Value Management System (July 2006)" for all of the LW contract scope.

Approach

The review approach was divided into two phases. Phase 1, was a review of the SRR system description, procedures and other documents associated with the project control systems, and the data generated from these systems prior to the on-site visit. The second phase of the review was to interview Control Account Managers (CAMs), the Project Control staff, and SRR Managers, to verify their understanding and utilization of the SRR EVMS requirements.

Committee

The review committee was comprised of nine subject matter experts; three from the SRS, five from the Office of Project Assessment, EM-53, and one from the EM Consolidated Business Center. Anna Murphy from SRS and Lenny Mucciario from EM-53 served as the team leaders. The committee was subdivided into four subcommittees, two for CAM interviews, one for accounting interviews, and one for management interviews.

Conclusion

The CAMs were very knowledgeable and had a good understanding of the SRR EVMS requirements, and were able to demonstrate the monthly process utilized to update performance, report variances, develop estimates at completions, status schedules, verify actual costs, and manage their work. The SRR managers were committed to EVMS, had a complete understanding of terminology and utilized the data to manage their scopes of work.

The EVMS committee has determined that the SRR EVMS system continues to be compliant with the ANSI-748B standard and the DOE O 413.3B requirements for EVMS; however, there were two corrective actions requests (CARs) or findings and five continuous improvement opportunities (CIOs) or observations (Appendix 1). SRR is required to formally address the two CARs, and has the option of addressing the CIOs, although no formal response or action is

required, the committee suggests a response be developed. SRR will also have to demonstrate over the next several months that the data quality issues identified in CAR-1 have been corrected to the satisfaction of the committee. At that point, the contracting office can issue a continued ANSI-748B compliance letter to SRR.

Corrective Action Request-1

In reviewing the July and August Contract Performance Reports (CPRs) a number of data quality issues or anomalies were identified including the following examples: negative budgeted cost of work schedule (BCWS) and budgeted cost of work performed (BCWP) with no actual cost of work performed (ACWP); ACWP with no budget at completion (BAC) and a positive estimate at completion (EAC); and positive BCWS and ACWP with no BCWP. SRR was able to provide explanations for some of the data issues including the removal of the pension and medical costs from the contract, the implementation of a rate adjustment, and moving scope from one WBS element to another WBS element; however, there was no sense of urgency on SRR's behalf to correct the errors or realign the performance data. Since these conditions existed for several months, the committee issue CAR-1 on the data quality issues.

Corrective Action Request-2

The EVMS system description has been revised to accommodate the new contract requirements on pensions and legacy medical costs, changes in the indirect/fringe rate reporting, expanded discussions on roles and responsibilities, processes, and requirements, and other administrative changes. The system description and supporting procedures remain compliant to the ANSI-748B standard; however, APM has a requirement, if the EVMS system description is significantly revised, it has to be submitted to APM for review and approval. This was the rationale for issuing CAR-2; however, SRR closed this action during the review.

Continuous Improvement Opportunities (CIOs)

There were five CIOs provided to enhance SRR's EVMS system and included: 1) Improvements on explaining cost and schedule variances, 2) CAMs sharing unique or individual reports and documents with other CAMs, 3) Explaining best case/worse case/and most likely case in the monthly report to DOE, 4) Reviewing and potentially revising variance thresholds, and 5) Labeling earned value techniques on the forecast schedule.

Best Practices

Finally, the committee identified seven best practices including: 1) CAM electronic notebook which was user friendly, 2) EVMS training program, 3) Senior management's commitment to EVMS, 4) The accounting, Cumulative Liability and Accounting Database (CLAD) system, 5) Schedule integration between the baseline schedule and execution schedule, 6) Cost estimating integration with the schedule, and 7) The new data repository web site.

1.0 Purpose

A joint Savannah River Operations Office and Office of Environmental Management Earned Value Management System (EVMS) surveillance review of the Savannah River Site (SRS) Liquid Waste (LW) contractor, Savannah River Remediation, LLC (SRR) was conducted the week of October 29, 2012. The purpose of the EVMS surveillance is to determine if SRR's certified EVMS continues to meet the requirements and the intent of the American National Standards Institute/Electronics Industries Alliance (ANSI-748B) Standard and its 32 guidelines by assessing:

- a. The EVMS system, as described in the Earned Value Management System Description (EVMSD) and associated procedures, and
- b. The certified system continues to provide timely, accurate, and auditable management information for both the organization's project management and the Department of Energy (DOE).

The objective is to ensure that SRR meets the requirements of DOE Order 413.3B (DOE O 413.3B) for capital asset projects, and the contract clauses H.14, "Project Control System and Reporting Requirements", and I.86, "FAR 52.234-4 Earned Value Management System (July 2006)" for all of the LW contract scope. The requirements include an annual surveillance review conducted by SRR to confirm continued compliance with ANSI-748B, and for DOE to conduct a surveillance review of a multi-year contract at the contract midpoint or every two years, during contract extensions, or as requested by the Acquisition Executive (AE).

2.0 Background

Savannah River Remediation, LLC is a limited liability company consisting of URS; Babcock & Wilcox Technical Services Group, Inc.; Bechtel National Inc.; CH2M Hill Contractors, Inc.; AREVA Federal Services, LLC; Energy Solutions Federal EPC, Inc.; and URS Safety Management Solutions, LLC, and services with Savannah River Nuclear Solutions, LLC (SRNS) as a critical subcontractor.

The objective of the Liquid Waste contract is to achieve closure of the SRS liquid waste tanks through the removal, treatment, and permanent disposal of the radioactive liquid waste in compliance with the Federal Facilities Agreement, utilizing the Defense Waste Processing Facility (DWPF) and Saltstone Facilities.

The LW contract, DE-AC09-09SR22505, is a \$3.135B (including fee) cost plus award fee for a six year base period, July 2009 to June 2015, with an option for two additional years. The value of the options, July 2015 to June 2017, is \$976M (including fee), for a total contract value of \$4.111B. The Office of Acquisition and Project Management (APM) conducted the EVMS

compliance review in 2010 and issued a certification memorandum on September 30, 2010. SRR has implemented a number of revisions to their system and has conducted annual internal surveillance review as required. This is the first DOE review since certification.

The management and control processes are as required by the SRR EVMS System Description (SRR-IM-2012-00009), S14 Business Management Manual, and the ANSI-748B Standard. The EVMS system description defines a tailored approach to provide effective and efficient control of scope, cost, and schedule baselines while minimizing administrative costs.

3.0 Review Approach

The review approach was divided into two phases. Phase 1, was a review of the SRR system description, procedures and other documents associated with the project control systems, and the data generated from these systems prior to the on-site visit. This allowed the team to familiarize themselves with the SRR systems, review the data for the contract performance status and data accuracy, and to ensure continued compliance with the ANSI-748B standard. These documents were originally deemed compliant by APM as a part of the EVMS certification which occurred on Sept 30, 2010.

The second phase of the review was to interview Control Account Managers (CAMs), the Project Control staff, and SRR Managers, to verify their understanding and utilization of the SRR EVMS requirements, review the monthly process to update the open control accounts, report cost and schedule data and variances, update estimates at completion, incorporate approved baseline change control actions, review, update and maintain schedules, review actual costs, perform data traces, and manage their scope of work.

The review committees will not address the ANSI-748B 32 guidelines individually, but consolidate them into the five critical areas, Organization (5 guidelines), Planning & Budgeting (10 guidelines), Accounting (6 guidelines), Analysis (6 guidelines), and Revisions & Data Maintenance (5 guidelines).

4.0 Review Committee

The review committee was comprised of nine subject matter experts; three from the SRS, five from the Office of Project Assessment, EM-53, and one from the EM Consolidated Business Center. Anna Murphy from SRS and Lenny Mucciario from EM-53 served as the team leaders. The committee was subdivided into four subcommittees, two for CAM interviews, one for accounting interviews, and one for management interviews. Bryan Skokan and John Stewart served as the CAM interview subcommittee leads to ensure all members had an opportunity to address their area of responsibility, manage the interview process, gather data and documents, and develop a consensus evaluation of the CAMs knowledge, processes, and documentation. Josephine Brownlee was the sole committee member responsible for the accounting evaluation. Lenny Mucciario and John Stewart interviewed management.

The committee members and assignments were as follows:

CAM Subcommittee #1	CAM Subcommittee #2
John Stewart – Lead & P&B Crissy Waller – Org & Analysis Dipak Jani – P&B (schedule) John Schermerhorn - Revisions	Bryan Skokan – Lead, Org & Analysis Anna Murphy – P&B Wilfred Figueroa – Revisions Lenny Mucciaro – All
Accounting Subcommittee	Josephine Brownlee
Team Lead (s)	Lenny Mucciaro & Anna Murphy

5.0 Findings & Observations

The EVMS committee has determined that the SRR EVMS system continues to be compliant with the ANSI-748B standard and the DOE O 413.3B requirements for EVMS; however, there were two corrective actions requests (CARs) or findings and five continuous improvement opportunities (CIOs) or observations (Appendix 1). SRR is required to formally address the two CARs, and has the option of addressing the CIOs, although no formal response or action is required, the committee suggests a response be developed. SRR will also have to demonstrate over the next several months that the data quality issues identified in CAR-1 have been corrected to the satisfaction of the committee. At that point, the contracting office can issue a continued ANSI-748B compliance letter to SRR.

The EVMS system description has been revised to accommodate the new contract requirements on pensions and legacy medical costs, changes in the indirect/fringe rate reporting, expanded discussions on roles and responsibilities, processes, and requirements, and other administrative changes. The system description and supporting procedures remain compliant to the ANSI-748B standard; however, APM has a requirement, if the EVMS system description is significantly revised, it has to be submitted to APM for review and approval. This was the rationale for issuing CAR-2. SRR took immediate action and submitted the document electronically to APM, closing CAR-2.

The CAMs were very knowledgeable and had a good understanding of the SRR EVMS requirements, and were able to demonstrate the monthly process utilized to update performance, report variances, develop estimates at completions, status schedules, verify actual costs, and manage their work. The SRR managers were committed to EVMS, had a complete understanding of terminology and utilized the data to manage their scopes of work. This was identified as a best practice by the committee.

In reviewing the July and August Contract Performance Reports (CPRs) a number of data quality issues or anomalies were identified including the following examples: negative budgeted cost of work schedule (BCWS) and budgeted cost of work performed (BCWP) with no actual cost of work performed (ACWP); ACWP with no budget at completion (BAC) and a positive estimate at

completion (EAC); positive BCWS and ACWP with no BCWP, etc. SRR was able to provide explanations for some of the data issues. Some of the reasons included the removal of the pension and medical costs from the contract, the implementation of a rate adjustment, and moving scope from one WBS element to another WBS element; however, there was no sense of urgency on SRR's behalf to correct the errors or realign the performance data. Since these conditions existed for several months, the committee decided to issue CAR-1 on the data quality issues. It should be noted that SRR began corrective actions during the review, but did not complete all the actions required. In addition, SRR will have to demonstrate in the following monthly reports that these issues will not be repeated.

The five CIOs were provided to enhance SRRs EVMS system and included improvements on explaining cost and schedule variances, CAMs sharing unique or individual reports and documents with other CAMs, explaining best case,/worse case/and most likely case in the monthly report to DOE, reviewing and potentially revising variance thresholds, and labeling earned value techniques on the forecast schedule. A complete description of the CARs and CIOs are provided in appendix 2.

CAR #	Title	*GL #	Functional Area
1	Data Quality	9,28	Planning & Budgeting / Revisions & Data Maintenance
2	System Description Approvals	All	All
CIO #	Title	*GL #	Functional Area
1	EAC Reporting	27	Analysis & Reporting
2	Share Working Documents	N/A	N/A
3	Variance at Completion Thresholds	27	Analysis & Reporting
4	VAR Improvement	25	Analysis & Reporting
5	Earned Value Technique in Schedule	6	Planning, Budgeting & Scheduling

*GL- Guideline Number (ANSI-748B)

The committee identified seven best practices including the CAM electronic notebook which was user friendly, the EVMS training program, senior management's commitment to EVMS, the accounting, Cumulative Liability and Accounting Database (CLAD) system, the schedule integration between the baseline schedule and execution schedule, the cost estimating integration with the schedule, and the new data repository web site.

Best Practices #	Description
1	Electronic CAM Notebook, User Friendly
2	EVMS Training Program
3	Senior Management Commitment
4	Accounting CLAD System
5	Schedule Integration
6	Cost Estimating Integration with the Schedule
7	New Web Site Data Repository

Finally, the committee did not address the findings and observations of the SRR EVMS Annual Surveillance Report, dated October 29, 2012; however, the committee does expect SRR to take the appropriate actions necessary to close those actions.

6.0 Organization

SRR was able to provide a single Contract Work Breakdown Structure (CWBS) and index for the LW contract scope of work and a dollarized Responsibility Assignment Matrix (RAM) which identified the CAMs and associated dollar value for each control accounts they managed. In addition, SRR provided a number of organizational and CWBS charts that identified the relationships between the various layers of management within the organization.

The CAM interviews included a review of the CAM notebooks and supporting documents to ensure ANSI-748B guidelines, 1, 2, and 3 were implemented as established in the SRR EVMSD. Each CAM clearly understood the scope of work they were responsible for, and were able to identify their control accounts and work packages on the WBS chart. Although some of the CAMs have many control accounts under their responsibility, the number of control accounts that were open at the time of the surveillance review was considered reasonable. Numerous opened control accounts are scheduled to close before the next sequential control accounts are opened. Additionally, when needed, the CAMs are supported by work package managers.

All organizational charts, WBS, RAM, and other supporting documents are posted and up to date on the SRR Integration and Planning website. These documents are easily accessible by CAMs, project control, senior management, and DOE. The ease of accessing this information allows for efficient implementation of changes, and allows new employees to quickly access and learn their organization and how their projects fit into the SRR contract scope of work.

Where major subcontractors were identified, the CAMs explained that the subcontractors provided estimates at award and ultimately developed a project baseline for their scope of work. Once approved, the subcontractor's baseline is inlaid into the SRR project baselines and status is provided by the subcontractor on a monthly basis and validated by SRR. Major subcontractors are being utilized on capital asset projects, Saltstone Disposal Units (SDU) 3&5, and the tank design for SDU 6. The majority of the scope performed on the LW contract is self-performed and the baseline was developed and managed by the SRR project management team.

7.0 Planning & Budgeting

The team verified that the ANSI-748B guidelines 6-15 are sufficiently covered in the EVMSD and supporting procedures. CAMs were able to discuss and demonstrate compliance to each of the guidelines.

SRR is utilizing objective performance measures, where practical, within each control account and work package to ensure accurate performance reporting each month. Since a majority of the contract work scope is classified as operating activities, the percentage of level of effort (LOE) activities is greater than what is expected under a capital asset project; however, it is considered reasonable. The schedule is all inclusive and includes sufficient detail to manage the work effectively. Milestones are identified, activities are linked, durations are reasonable, constraints are supported, and progress is accurately reported and matches the performance reported in the cost processor, Cobra. The schedule covers the base period of performance, the two year option, and the life cycle, although only the base years are being reported, as required.

The committee observed a best practice when several CAMs provided copies of individualized detailed earned value “Rules of Performance”. The Rules of Performance explained how the percent complete is determined and how certain accomplishments are weighted to accurately status the CAM’s control accounts and work packages. These Rules of Performance were developed during the baseline development phase, traceable through Primavera (P6), and accurately reported monthly in Cobra. This is a worthy practice that should be shared with other CAMs.

SRR developed a complete contract Performance Measurement Baseline (PMB) with separate WBS elements for each capital asset projects making reporting and tracking visible . The baseline has been reviewed and approved, covers all of the contract scope, is in enough detail to accurately report performance, and is fully integrated with the schedule.

SRR utilizes the baseline change proposal document as the authorizing document for all revisions to the control account plan (CAP). The CAMs provided copies of the work authorization (WA) documents including the letter from the DOE contracting officer to the SRR contracting officer for authorized unpriced work, which is followed by the SRR project authorization document (PAD) which identifies the changes in scope and the baseline down to the control account. The WA document values were traceable to the CAP estimates and P6. The detailed estimates were coded with the corresponding P6 activity identification code, the P6 work package activities rolled up to the control account level and were traceable through Cobra up to the CPR, Format 1.

The committee did identify a number of WBS elements that did not have a BAC, but had actual costs and an EAC on the CPR. WBS elements 01.90.04.01.01 through .07, are examples, and will require corrective actions from SRR and verification from SRS. These data quality issues were identified in CAR 1. This also raises baseline integrity questions, and accurate reporting concerns on individual WBS elements.

Under the capital asset projects there was a reasonable amount of LOE activities and usually a single LOE work package within the discrete control accounts. On the operation activities the amount of LOE activities increased due to the nature of the work. The committee considered the

total amount of LOE activities on the contract to be reasonable. SRR utilized discrete performance measurement techniques where practical. None of the CAMs interviewed had planning packages; however, SRR did indicate that there were a few in the total contract baseline. Where support was intrinsically tied to a discrete activity, it was observed that the apportioned method was identified and associated with the discrete activity. The earned value was traced from the P6 percent complete on the discrete activity to the apportioned activity in Cobra with the appropriate performance cost value.

SRR established a management reserve (MR) for the LW contract and utilizes a MR log to track the changes as baseline change proposals are processed. SRR has distributed all of the scope to control accounts or planning packages and currently does not have any undistributed budget (UB); however, SRR does have procedures and business rules in place to explain how UB should be handled. SRR was able to demonstrate the handling of authorized unpriced work (AUW) from the contracting officer's authorization to UB to the CAPs. This was identified by the Project Authorization Document (PAD) code on the SRR Contract Budget Base Log (CBBL). The example was further traced by the CAM from the BCP package to the CPR Format 1 at the work package level.

The committee reviewed the August CPR Format 1 header information and found that the SRR Contract Modification 217 dated September 26, 2012, matched the Negotiated Cost (block 5b); however, the Contract Budget Base (block 9b) did not match the Negotiated Cost, or the SRR Contract Budget Base Log's month end value. This was brought to the contractor's attention, and it was determined that the copy of the August Format 1 provided was a preliminary month end report. Once the committee was provided with the final official August Format 1, the CBB (block 9b) matched the Negotiated Cost (block 5b), and the Contract Budget Base log. SRR also provided the committee with a trace from the contract to the CBB log.

A review of the LW contract schedule indicated that most activities have successor and predecessor activities; however, there were a few Tank Farm Sludge 8 activities that were left open ended with a high number of float days. Further review indicated that some of the activities were mislabeled and tied to the end of the contract, end of the option period, and/or end of the project milestone with "Finish On or After" instead of "Finish On or Before". Once the corrections were made, the total number of float days decreased significantly. Most activities were logically tied or driven to the end milestone or deliverable. The schedule WBS elements were consistent with the contract WBS and all control accounts were resource loaded. SRR was able to provide a crosswalk between P6 and Cobra. The crosswalk revealed that dollars, hours and percent complete were equal in both systems, excluding escalation. The baseline schedule and execution schedule are vertically integrated with activities having the same start and finish dates and performance measurements. SRR was able to demonstrate the critical path for the contract and each capital asset project.

Several schedule discussions were held between the subcommittee and the SRR Project Controls and CAMs responsible for SDU 6, SDU 3&5, and Tank Farm Operation Process of Sludge Batch 8 projects. There were indications that there may be some disconnects between the forecast schedule and the data in Cobra. The forecast schedule did not reflect the same percentage complete as reported in Cobra for some apportioned activities. In one example, an apportioned activity was split. Due to a limitation in primavera; when work resumed, the 2nd half of the apportioned component has to be manually updated based on the progress made on the activity that is linked to that apportioned activity (CIO-5). While this is an acceptable approach, there is a risk of not properly reporting progress for that activity if it is not consistently updated manually during each reporting period. There were isolated cases where the updating was not taking place. Due to the limitations of the scheduling tool, SRR should track and ensure split tasks that are apportioned are manually updated on a monthly basis. In addition, periodic quality assurance checks on the schedule should be performed to ensure its accuracy and completeness. In addition, there were a few activities where the EV technique was miscoded. For example, activities coded with a “C” (percent complete) should have been coded with a “J” or “X” (Apportioned).

8.0 Accounting

The SRR controller has a staff of 12-13 people and is responsible for oversight of the accumulation of actual costs, processing of financial reports for the corporation, producing the actual files to provide to Cobra, and responding to questions about actual costs. The controller has completed the “SRR EVMS Approach and Systems Overview” training and periodically reviews EVMS training material sent to the staff in the SRR “Gazette (company newsletter).

SRR has approximately 2,000 direct labor employees (exempt, non-exempt, and craft). Employees are responsible for entering their time daily into the Deltek Time Collection System using project codes provided by their supervisors. Time reports are approved weekly and are required to be submitted by 1:00PM the Monday following the end of the pay period. Labor costs are distributed based on the (1) account code, (2) organizational code, and (3) project number. All employees’ record their total hours worked. For exempt employees, Deltek prorates the hours charged to each project based on a relative share of the totaled hours worked. Deltek has an “Entered View” screen which shows total hours worked and a “Prorated View” screen showing the numbers allocated to each project based on the hours in the employee’s normal work schedule. Hours are transferred to Costpoint where the hours are matched (costed) against the employee’s actual labor rate which was previously entered by Human Resources in PeopleSoft. Reconciliation is done monthly between the labor distributions (amount paid) in Costpoint and the employee’s salary data recorded in PeopleSoft. SRR provided a trace showing an exempt employee’s prorated vs. total labor hours recorded for pay period ending August 19, 2012. This trace included the employee’s “prorated” and “entered” timesheet along with:

- A Costpoint project ledger detail showing the general ledger posting,
- The Cobra feed cost to date (CTD) by WBS showing payroll costs transmitted to Cobra, and
- A report showing the balancing between the hours collected in Costpoint to the hours recorded in the Deltek Time Collection System.

SRR also provided a report showing the entered and prorated hours for all SRR exempt employees for the period ending August 19, 2012. Additionally, SRR provided a copy of a balance sheet reconciliation of accrued salaries (exempt, non-exempt, and craft employees) performed between the accounting system and PeopleSoft payroll journal.

SRR uses its Puridiom system to handle material requisitions, issue purchase orders, record the receipt of material, and to ensure quality control over the material received. From an EVMS perspective, SRR costs material when it is received or accrued. Accruals are automatically reversed by the system the following month. SRR provided the following documentation showing a trace of two items of material ordered and received under Order # SRRA009264 in August 2012: (1) “Orders Receipt Activity Report” from Puridiom; (2) Voucher Distribution Journal from Costpoint; (3) August 2012 Project Ledger Detail Report; and (4) Cobra Feed CTD by WBS. The Costpoint file agreed with the amount transferred to Cobra.

SRR maintains different types of subcontractors—those that provide services which are subject to progress payments, those that provide staff augmentation, and the Management & Operations (M&O) service level agreement. Service/progress payment subcontractors are subject to the automated accrual system, CLAD. Purchase orders for these subcontractors are recorded in Puridiom and identified as “Subcontract Invoice Approval Required”. The subcontractors typically perform work and send the invoice the following month. CLAD issues a notice to the CAM that an accrual is required by a certain due date. The CAMs review the CLAD information and using contractor status information, inputs the correct accrual amount in CLAD. CLAD reverses this accrual amount the following month. Accounts payable then “costs” the accrual by uploading the data to Costpoint. SRR provided an example of a CLAD reminder. The message stated “This is a reminder to complete your cumulative liability data entry for the current accrual cycle by noon on October 15, 2012. The cumulative liability amount should reflect liability through October 21, 2012. If you need assistance, please contact Project Controls.”

Subcontracts for staff augmentation use SRR’s Deltek Time Collection System to capture labor hours. Most staff augmentation subcontractors submit invoices 15 days after the pay period ending date; therefore, an accrual is made monthly to reflect the amount owed to the subcontractors. The accrual is based on the number of hours recorded by Deltek multiplied by the applicable employee billing rate. SRR provided a staff augmentation trace showing hours recorded on the employee’s timesheet, the amount booked in Costpoint on the Project Ledger Detail Report, the EVMS costs recorded for the project on the Project Status Report, and the CTD of staff augmentation charges provided to Cobra.

Service Level Agreement (SLA) charges typically involve charges for services such as utilities, lab services, or other tenant material and services provided by the M&O. Monthly, the M&O provides an accrual amount for services/material provided but unpaid. SRR provided a trace showing a SLA accrual received from SRNS along with the Costpoint Project Ledger, Project Status Report, and the Cobra Feed Report.

Other direct costs typically include travel, conferences, and other small item purchases. They are passed from SRR's expense reporting system to Costpoint and are subject to reviews for unallowable costs before being booked into Costpoint. The end users are responsible for coding any costs, such as contributions, as unallowable (SRR Chart of Account Number 9000). Accounts Payable has the responsibility for reviewing charges to ensure unallowable costs are eliminated from invoices to the Department of Energy (DOE).

SRR demonstrated the ability to summarize direct costs from control accounts into the work breakdown structure without allocation of a single control account to two or more work breakdown structure elements. Also, the direct costs could be summarized from the control accounts into the contractor's organizational elements without allocation of a single control account to two or more organizational elements. SRR charges all costs at the project level (lowest level for cost roll-up purposes) and has over 13,000 project identification numbers in use. Direct cost project numbers are identified by E1.

Within SRR's account control structure:

- Each project number is assigned a Cobra mapping value so the cost information can be transferred to the EVMS system at month end. Only one project can have the same Cobra mapping value.
- Each organization is also assigned a Cobra mapping value so the cost information can be transferred to the EVMS system. Each organization has a separate mapping value.

At month's end, accounting performs Costpoint reconciliation before transmitting actual cost data to Cobra. The controller obtains a Cobra Feed CTD by WBS report from Costpoint and traces the amounts back to supporting invoices (project cost) to ensure the supporting data amounts tie to the general ledger. Once the agreement of the supporting data and amounts recorded in the accounting system are confirmed, an electronic copy of the accounting file is sent to the Cobra administrator. A copy of the August 2012 reconciliation was provided and showed the hours and dollar amounts recorded by the general ledger, project summary report, and Cobra feed summary agreed.

Prior to June 2012, DOE/SRS would provide SRR an annual estimate for its pension plan and certain legacy costs (medical, dental, disability income, non-qualified pension, and life insurance) for its current employees and retired or separated employees vested in the pension plan. Separate funding was provided in the contract to cover these costs. SRR, in turn, would pay the monthly amount to SRNS, who is also a sponsor of the Multiple Employer Pension Plan.

SRR's share of the total estimate for FY 2012 was \$84,370,357, roughly 36 percent of the overall total for the Multiple Employer Pension Plan.

Effective June 4, 2012, DOE/SRS, through issuance of Contract Modifications 196 and 198, changed this practice and (1) made SRNS the fiduciary agent for SRR, and (2) DOE/SRS would pay SRNS directly for SRR's portion of pension costs plus legacy benefits for certain retired and separated employees but not current SRR employees and SRR retirees, and (3) reduce SRR's contract value for any payments made on behalf of SRR for its pension/legacy benefit obligation. In total, Modification 198 decreased SRR's funding by \$248.2 million for pension costs and \$40.2 for legacy benefit costs from the basic contract.

Previously, SRR had booked 1/12 of the fiscal year pension cost estimate monthly. So for the months of January – May 2012, SRR had incurred a pension expense prior to the directed change. With the DOE directed change; however, SRR will no longer reflect a pension expense in Costpoint since it is no longer paying this expense (correct accounting practice). This change only affected future pension costs, so there were no retroactive changes; however, it created large cost variances in the July CPR (current period, cumulative to date, and at completion numbers).

The DOE directed change also affected legacy benefit costs. The accounting treatment for Pre-July 1, 2009 legacy benefit costs will be the same for pension since SRR no longer has direct responsibility for paying these costs (DOE will pay these costs in the same manner as for pension). For post-July 1, 2009 retirees; however, SRR still has responsibility for paying legacy benefit costs. These expenses will be charged direct to each budget and reporting level based on their respective share of the actual amount paid.

The accounting subcommittee confirmed that SRR's EVMSD was in agreement with its approved Disclosure Statement description of accounting practices and procedures. It also concluded that SRR was actually performing its EVMS processes in accordance with its System Description based upon:

- Demonstrations of SRR's use of unique Cobra mapping values assigned to individual project numbers and organizations;
- Traces of direct labor, subcontract, and material from the various systems for recording the initial cost data (Deltek Time Collection System, Puridium system for accumulating material costs, CLAD and related systems for capturing subcontractor accruals) to the Costpoint Accounting System;
- Reconciliation of accounting system data to source documents before transmittal to Cobra; and
- Reconciliation of the General Ledger, Project Summary, and Cobra feed cost data.

Additionally, the accounting subcommittee concluded that SRR correctly handled the DOE directed change for pension and legacy benefit costs. Please note that SRR does not have a

production environment and therefore, ANSI-748B Guideline 20 regarding lot/unit costs is not applicable.

SRR has two indirect cost pools—fringe benefits and program support. The fringe benefits pool accumulates the cost for Federal Insurance Contribution Act (FICA) and other payroll taxes, unemployment, insurances, vacation, holidays, and similar costs. Fringe costs are allocated to the contract through a monthly provisional billing rate based upon total labor dollars.

All indirect labor hours and costs, material costs, subcontracts and other direct costs are charged to the program support pool and are accumulated the same way as direct costs, except the charge identifier number, PS for program support. These costs typically include complex-wide support organizations/initiatives such as, Human Resource, Finance, IT, Procurement, and other costs that are similar to general and administrative costs. Program support costs are allocated to the contract based on a monthly provisional billing rate.

SRR has roughly 363 program support charge numbers identifying the specific type of indirect activity. These numbers are provided by the Program Support CAM to each indirect activity at the beginning of the fiscal year. Indirect employees use these codes to record their time and attendance in Deltek. Again, costs are accumulated in the same manner as for direct costs.

Until recently, the provisional billing rates were developed by the SRR Government Compliance Group; however, this organization has been disbanded and the rate development function has been transferred to Accounting.

SRR uses historical cost data to develop its fringe provisional billing rate estimate, and are updated to reflect the latest forecasted contract needs. For example, the rate development process involves forecasting the number of employees required by skill mix, as well as, forecasting other costs needed to support the SRR contract scope of work and assumptions. A copy of the FY 2012 rate proposal approved by DOE and the FY 2013 rate proposal being audited by the Defense Contract Audit Agency (DCAA) were provided. Both proposal packages identified the following:

- Costs included in the fringe cost pool,
- The basis/assumption and methodology for estimating the individual costs such as workers compensation, medical/dental, etc., and
- Basis for allocating the fringe rate to the contract (total labor dollars).

SRR applies the approved provisional fringe rate monthly to direct labor dollars incurred. At the end of the fiscal year, SRR calculates the actual fringe rate and any over or under-applied amounts are charged back to the appropriate organizations based on their relative share of the costs.

The program support rate development process works the same as the fringe rate process. SRR prepares a proposal for review/approval by the cognizant agency (DOE in FY 2012 and DCAA

for FY 2013) and upon approval, applies the rate monthly to the contract based on modified total costs (total costs less pension and legacy medical). The FY 2013 rate proposal showed total program support (pool) costs of \$46.5M and a modified total cost base of \$297.4M after elimination of \$2.8 million for legacy medical costs. There were no pension costs projected for FY 2013 because of the DOE directed change in funding/reporting of pension cost.

The CAM for Program Support's major responsibilities include overseeing the program support budget formulation process, monitoring the actual costs, forecasting an estimate at completion, and analyzing and responding to variances.

Prior to FY 2011, SRR accumulated and reported all program support costs in one Budget & Reporting Code (B&R), SR-0014C. The initial program support budget baseline (SRR Estimating Detail Items Report, June 24, 2010) for SR-0014C was developed based on a "bottoms up estimate of costs" to perform the contract at the organizational level as input into Success, SRR's estimating software. Each organization's material, labor hours, equipment, and other costs were identified by resource code and loaded into P6 by fiscal year. Performance for this budget was identified as level of effort. The work breakdown structure code to identify this effort was 01.90.

During FY 2011, DOE directed SRR to establish multiple B&Rs to report program support costs. This action resulted in the separate B&R codes for the following:

- Tank Farm Closures
- Radioactive Liquid Waste Tank Waste Stabilization & Disposal
- Defense Waste Processing Facility
- Saltstone Facility
- Salt Waste Processing Facility Support –TEC
- Salt Waste Processing Facility Support – OPC
- Salt Waste Processing Facility Support – OPC I
- Glass Waste Storage Facility
- FY 2011 Program Support Allocation
- FY 2011 Legacy Allocation
- Saltstone Disposal Unit 2
- Tank Waste Processing Facility (Tank 48)
- Saltstone Disposal Unit 3&5
- Saltstone Disposal Unit 6, 7, and any additional SDUs
- SDU 6 General Plant Project
- American Recovery & Reinvestment Act (Program Support)
- American Recovery & Reinvestment Act (Pension/Legacy)

When SRR added the additional B&R codes in FY 2011, it reallocated the budgeted total program support costs (Rev. 17 schedule changes) to each of the new program support organizations based on their weighted average share. The work breakdown structure was

changed to identify program support effort as 01.PS. Changes to these individual program support budgets are subject to configuration control.

On a monthly basis, the CAM receives actual program support costs via a file transfer with labor charges from Costpoint and a “data dump” from Cobra showing productive hours and other project cost information. The CAM compares the data and reconciles differences based on project control web browser reports and other supporting data. The forecast for program support is updated, including estimating the number of labor hours (by employee) and non-labor costs already spent and the amount still required. The annotated copy of the Report “TPhase MH Standard” is provided to project control to update P6 and Cobra.

The July CPR showed a number of large negative cost variances resulting from SRR’s directed removal of pension and certain legacy benefit costs from the contract. These negative variances are proper since actual performance was being measured against BCWS that was removed from the contract. The Program Support CAM and the subcommittee traced these variances reported back to Baseline Change Proposals 350, 384, 385, and 388 and found that the variance amounts were accurate.

The accounting subcommittee confirmed that the EVMSD was in agreement with the approved Disclosure Statement including the accounting practices and procedures for developing indirect rates and for accumulating and allocating indirect pool and base costs. All indirect costs were recorded in the accounting system. The indirect costs were allocated consistently to benefitting organizations thus ensuring all organizations received their relative share.

In addition, the accounting subcommittee confirmed that SRR established the additional DOE required B&R codes to report indirect costs and appropriately allocated the total amount previously budgeted to the individual B&Rs established. SRR also appropriately recognized variances created as a result of removing work scope planned from the contract in accordance with DOE’s direction to discontinue paying/reporting pension and certain legacy benefit costs.

9.0 Analysis & Reporting

The subcommittee focused on assessing the monthly CPRs, trends, estimates at completion, and variance analysis reporting. ANSI-748B Guidelines 22, 23, 26, and 27, were reviewed against the SRR EVMSD and in turn how they were implemented by the CAMs.

The CAMs provided the monthly CPRs for June, July and August 2012. The CPRs included budget, earned value, and actual cost for each control account and subsequent work packages. Where cost and schedule variances tripped a threshold, variance analysis narratives were provided. Thresholds used by each CAM depended on the scope classification as either operations or capital asset, as defined in the SRR EVMSD. Operating activities utilized the thresholds identified in the SRR EVMSD under Liquid Waste Base Operations. Capital asset projects (SDU 3&5) utilized thresholds included in their Project Execution Plan (PEP), which

were generally more stringent than those identified in the SRR EVMSD. Prior to obtaining Critical Decision 2 approval, a project without a final PEP defaults to utilizing the thresholds identified in the SRR EVMSD (SDU 6) until the PEP is approved. Each CAM followed the above protocol correctly for their respective control accounts.

All CAMs identified the process by which they developed and reviewed their monthly project earned value data and variance analyses. All CAMs use a process similar to and in compliance with the requirements of the SRR EVMSD, Section 10. Variance analyses were all developed by the CAMs, as required, with support from their project controls support team through monthly team meetings, weekly status meetings, and senior management review meetings. The team met monthly to review the project controls spreadsheets, rules of performance for developing percent complete status, schedules, and other project documentation, as necessary.

Along with the variance analysis development, the project team developed all necessary corrective action statements, which were logged and tracked monthly to completion by the CAM. All monthly CPRs, variances, baseline changes and monthly project review documents are posted on the SRR Integration and Planning website and updated monthly to maintain all formal project documents in a centralized location. During monthly team meetings, EACs are reviewed and updated from current month status, trends and approved baseline change proposals. Variances at completion were identified on the monthly variance analysis reports where appropriate, based on thresholds.

Discrete efforts identified with an earned value technique of percent complete were statused monthly based on a set of rules of performance, which were presented in each CAM interview from the CAM notebooks. The percent complete was based on measurable units or other physical completion criteria that were verified by the CAM. The rules of performance were developed independently for each CAM by the project team.

The SRR EVMSD and CAM knowledge and documentation was sound and sufficient to meet the ANSI-748B guideline requirements. Variances were identified and explanations for the most part were sufficient; however, there were a few cases where improvements are needed on the causes of the cost and schedule variances (CIO-4). EACs were updated monthly by the CAM and project team, and variances at completion were developed where thresholds dictated them necessary.

It was noted that on the CPR Format 1, the bottom line EAC differed from the Most Likely Case (block 6c) with no explanation being provided in the variance analysis section of the monthly report. According to the SRR Estimate at Completion Procedure, the EAC rolled up from the control accounts is typically considered the “Most Likely” EAC. The procedure also states “any differences should be explained in the monthly CPR in terms of risk, use of MR or higher management knowledge of current or future contract conditions.” The assumptions, conditions, and methodology underlying this estimate shall be explained briefly in the CPR. In addition, the

Best Case and the Worst Case EAC should also be explained in the CPR, if the estimate is different from the Most Likely EAC according to the procedure. There was no evidence in any of the CPRs provided that the differences were explained (CIO-1).

In reviewing the CPR Format 1 for July and August, it should be noted that there were several instances of actual costs being reported without a BAC. It was explained that in most of the cases, implementation of the BCP 350 for rate change and System Plan 17 had not been completed due to delays in accounting moving the ACWP. Other issues included a zero current month BCWS, a positive BCWP, and a negative ACWP, or a zero BAC with a positive EAC. There are many examples in the report, below are just a few examples (CAR-1).

WBS Element	BCWS	BCWP	ACWP	BAC	EAC
01.90.01.21 Tank Closure	0	0	261	0	(261)
01.90.01.27.02 ECC Unit 1	0	2000	(3,943)	8,322,970	8,384,546
01.90.02.08.07 Piping Mod	4,804	0	3,102	304,410	243,752
01.90.02.08.08 Coalescer	9,420	0	1,123	879,788	854,576
01.90.03.18.01 Melter #4	215,419	(165,516)	508,837	13,223,185	11,264,135
01.90.03.26 GWSF #3	24,786	24,786	(20,145)	4,814,460	4,851,008
01.90.04.01.01 through .07	0	0	0	0	Various

The numerous data quality issues can adversely impact the CAMs ability to properly analyze potential performance issues and in turn, may impact management’s ability to make informed decisions. This can also raise questions about the integrity of the data. Although SRR was aware of most of the issues and was able to explain the circumstances surrounding the quality issues, there was no indication that there was a sense of urgency to correct the issues or need to correct these issues in a reasonable amount of time. It should be noted that once the issues were discussed, SRR began taking actions to correct the data quality issues.

SRR should implement a monthly QA review of the CPR data to correct or identify anomalies being reported; ensure accounting makes the adjustments required to move the ACWP to the correct WBS element; move EACs to the correct BAC, complete all of the rate adjustment corrections, and make sure all reporting elements (BCWS, BCWP, ACWP, BAC, and EAC) are being reported timely and in the proper WBS element.

SRR established a variance analysis threshold for three control account ranges; \$0-\$5M; \$5M-\$50M, and \$50M and above (see chart below). The current month, cumulative to-date, and variance at completion reporting requirements are based on a percentage and a dollar amount before an explanation is required. These were established as a result of a recommendation from the certification review; however, in reviewing the reporting threshold for control accounts in the \$5M-\$50M range, the variance at completion threshold is established at 15 percent and \$5M. Therefore, any CA at the lower end of the range is not required to explain a VAC until a very high percent is breached. A hypothetical example: a CA with a BAC of \$5M will not have to

explain a VAC until the EAC reaches \$10M, or double the BAC amount (100%). Some of the CAs with significant VACs that fall into this category (\$5M-\$50M) include: WBS 01.90.01.05-Tank 5 Closure, WBS 01.90.01.10-Tank 10 Closure, WBS 01.90.01.12- Tank 12 Closure, and WBS 01.90.01.25 Waste Removal & Tank. The VAC percentage for this category ranges from 100 percent at the low end (CA with a BAC of \$5M) to 20 percent at the high end (CA with a BAC of \$50M). Although the upper end of the range may be acceptable to management, the lower end of the range should not. VARs may not get explained until it is too late for corrective actions to be implemented (CIO-3).

SRR VARIANCE ANALYSIS THRESHOLDS							
CA Range Minimum	CA Range Maximum	and		and		and	
		Threshold % Current Month	Threshold \$\$ Current Month	Threshold % Cum to Date	Threshold \$\$ Cum to Date	Threshold % VAC	Threshold \$\$ VAC
\$0	±\$5,000,000	±10%	±\$25,000	±10%	±\$100,000	±15%	±\$500,000
±\$5,000,001	±\$50,000,000	±10%	±\$100,000	±10%	±\$1,000,000	±15%	±\$5,000,000
±\$50,000,001	Max	±10%	±\$1,000,000	±10%	±\$5,000,000	±15%	±\$10,000,000

NOTE:

1. WBS Level 3 thresholds are determined by the Project Directors.
2. There are no predetermined IPABS thresholds. IPABS variances will continue to address the top contributors to the Total Project Cost and Schedule dollars variances. The Monthly IPABS Summary Narratives submittal will be made available to DOE upon request, regardless of the threshold limits.
3. Capital Asset Projects may establish more stringent VAR requirements in their PEP document.

SRR should review the VAC threshold for control accounts in the \$5M-\$50M range and determine if an adjustment is needed to provide management with additional visibility into the causes of the VAC.

During the CAM interviews, several unique and individual data collection analysis tools, and techniques were being employed by the various CAMs to enhance or facilitate their ability to manage their scope of work. One example is the detail spreadsheet report, “A1CPR_Result_by FC at-CPR Frmt1 w/Hours Dollars by Funding Category” being kept by the CAM and his project controls team for capital asset project SDU 3&5. There were many other examples identified during the interviews. The review team determined that these special or unique documents or methodologies utilized by one CAM may be useful to the other CAMs in performing their CAM functions. SRR should consider developing a process or method for CAMs to share these unique or individual documents, analytical applications, and information with other CAMs. These approaches may lead to improved earned value determinations, reporting, and management of the CAMs scope of work (CIO 2).

10.0 Revisions

The SRR EVMSD and supporting procedures comply with the ANSI-748B guidelines for timely incorporation of authorized changes into the baseline, updating the CAP and P6 schedule accordingly, and not allowing retroactive changes, with exception of correcting errors or accounting adjustments.

The subcommittee discussed the BCP process with all CAMs interviewed, and they were able to explain the process and the requirements to maintain a current and accurate CAP. They maintained a change log of authorized changes with electronic and physical signatures and corresponding authorization dates. Following authorization, the impacted elements were incorporated into the schedule through an internal cost, and schedule process. All changes are made in the current period or future activities. Retroactive changes are not allowed. BCP changes were traced through the primavera schedule, into Cobra, and were consistently recorded within the monthly CPR, Format 1.

As discussed under analysis, there were a number of data quality issues with incomplete changes in the CPR Format 1 elements. These issues could also be associated with guideline 28 for timely incorporation of changes into the system. SRR will need to take action to correct these issues and ensure they do not repeat themselves in the future. The subcommittee did not identify any unauthorized scope being performed. Work authorization documents were available and verified for all work being performed.

Each CAM maintained an electronic notebook with all critical project and activity supporting documentation. Additionally, many CAMs also maintained physical notebooks with key project information. It was observed that within the electronic and physical notebooks, approved work authorization documents were filed in conjunction with approved BCPs. BCP logs are maintained by a central project controls group for all projects and activities. Also, during instances where a BCP was not approved, approved VARs were developed and submitted with the monthly CPR.

The committee found that SRR EVMS remains compliant with the requirements of ANSI-748B guidelines 29, 30, 31, and 32; however, CAR 1 has been issued as a result of the data quality issue, which is associated with guideline, 9 and 28.

11.0 Documents Reviewed

The following is a list of the documents the subcommittees reviewed:

- SRR Earned Value Management System Description (EVMSD) Document SRR-IM-2010-00009 Revision 3, Approval Date: 10/10/12
- Contract Funds Status Report Period 10 July 2012
- Sample CAM notebooks

- Work Breakdown Structure, Dictionary and Index of 8/7/12
- Project Organization Breakdown Structure
- Variance Analysis Reports for June, July, and August 2012
- Variance Analysis Corrective Action Logs for June, July, and August 2012
- Budget Baseline Hierarchy
- SRR Contract Budget Base Logs for June, July, and August 2012
- SRR Baseline Change Proposal Log August 2012
- SRR Cost Accounting Standards Board Disclosure Statement dated June 4, 2012
- SRR Listing of Major Subcontractors
- DOE –SRR Contract DE-AC09-09SR22505 MOD 204 and MOD 217
- Contract Performance Reports for the months of June, July , and August 2012
- SRR Procedure: 1.0 “Glossary”, Revision: 2, Effective Date: 9/18/12
- SRR Procedure: 1.1 “Control Account Manager”, Revision: 3, Effective Date: 9/18/12
- SRR Procedure: 1.2 “Contract Work Breakdown Structure And Dictionary Procedure”, Revision: 3, Effective Date: 9/28/12
- SRR Procedure: 1.3 “Estimating, Planning And Budgeting”, Revision: 3, Date: 9/18/12
- SRR Procedure: 1.5 “Scheduling”, Revision: 2, Date: 9/18/12
- SRR Procedure: 1.6 “Earned Value Status and Update” Revision: 3, Date: 9/18/12
- SRR Procedure: 1.7 “Trend Program”, Revision: 3, Date: 11/8/10
- SRR Procedure: 1.8 “Estimate at Completion (EAC)”, Revision4, Date: 9/18/12
- SRR Procedure: 1.9 “Analysis and Reporting”, Revision: 5, Date: 9/18/12
- SRR Procedure: 1.10 “Baseline Change Control” ,Revision: 8, Date: 9/28/12
- SRR Procedure: 1.11 “System (EVMS) Surveillance”, Revision: 2, Date: 9/18/12
- SRR Procedure: 1.12 “Risk Management”, Revision: 3, Date: 1/27/12
- SRR Procedure: 1.13 ” Subcontractor Planning and Control”, Revision: 5, Date: 9/18/12
- SRR Procedure: 1.14 ”Material Planning and Control”, Revision: 5, Date: 9/18/12
- SRR Procedure 1.15 “ARRA Scope Addendum”, Revision 2, Date: 3/17/10
- Cost Point Mapping Value to SRR Organizational Structure
- Cost Point to Project (CAM level) Mapping Value
- SRR Finance and Accounting Manual S15:
 - Procedure 1.1--Policies and Practices
 - Procedure 1.3--Accruals processing
 - Procedure 1.6--Planning Rates
 - Procedure 1.7--Accounting for Unallowable Costs
 - Procedure 1: 9--Payroll Process
 - Procedure 1:10-- General Ledger Account Reconciliations
 - Procedure 1:11—Journal Entries
 - Procedure 1:12—Billings
 - Procedure 1.13—Accounts Payable Process
 - Procedure 1:14—Cash Management Process
 - Procedure 1.15—Allocation of Direct and Indirect Costs
 - Procedure 1:16—Accounting for Income, Rebates, Refunds, Allowances or Other Misc. Credits
 - Procedure 1:17—Project Accounting
 - Procedure 1:20—Accounts Receivable

- Procedure 1:21—Accounting Records Management
- SRR Administrative Procedure S13—Time Reporting
- SRR Business Management Manual S14, Procedure 1.13—Subcontractor Planning and Control
- Business Management Manual S14, Procedure 1.14—Material Planning and Control
- Primavera Schedules for Level 1 (Project Milestone) to Level 5 (Execution Schedule), Baseline & Forecast Schedules, Plan of the Day, Critical Path
- SRR EVMS Annual Surveillance Report, 10/29/12
- Control Account Plans for 28 CAs reviewed
- Cobra, Cost Processor
- Costpoint Accounting System
- Project Authorization Documents
- Contract Modification Log
- Electronic Time Cards
- SRR Best Practice Subcontract Requirements List

12.0 Control Accounts Reviewed

The following is a list of the control accounts reviewed by the committee

- 01.90.01 – Waste Removal & Tank Closure
 - 01.90.01.04.01 – Tank 5 Closure
 - 01.90.01.05.01 – Tank 6 Closure
 - 01.90.01.16.01 – Tank 16 Closure
- 01.90.02 - Liquid Waste Base Operations - H Area Tank Farms
 - 01.90.02.01.02 – Sludge & Salt Processing
 - 01.90.02.01.07 – Engineering
 - 01.90.02.01.08 – Maintenance
 - 01.90.02.01.09 – ESH&QA
 - 01.90.02.01.10 – Infrastructure
- 01.90.03 – Waste Treatment
 - 01.90.03.01.01 – DWPF Operations Canister Production
 - 01.90.03.01.02 – Saltstone Operations Grout Production
 - 01.90.03.18.01 - Melter #4
- 01.90.22 - Saltstone Disposal Units 3&5
 - 01.90.22.01.01 – Construction
 - 01.90.22.01.02 – Program Support & Legacy Cost
 - 01.90.22.02.01 – Other Project Costs
 - 01.90.22.03.01 – OPEX
- 01.90.23 - Saltstone Disposal Unit 6
 - 01.90.23.01.01 – Construction

- 01.90.23.01.02 – Program Support and Legacy
 - 01.90.23.01.10 – Tank
 - 01.90.23.01.30 – Balance of Plant
 - 01.90.23.02.01 – Other Project Costs
 - 01.90.23.02.10 – Conceptual Design
 - 01.90.23.02.20 – Training & Testing Acceptance
 - 01.90.23.03.01 – OPEX
- 01.90.02 - Liquid Waste Base Operations - H Area Tank Farms
 - 01.90.02.01.02 – Sludge & Salt Processing
 - 01.90.02.01.07 – Engineering
 - 01.90.02.01.08 – Maintenance
 - 01.90.02.01.09 – ESH&QA
 - 01.90.02.01.10 – Infrastructure

Appendix 1

Corrective Action Requests & Continuous Improvement Opportunities

1. Subject: Data Quality	2. Guideline Ref (if applicable): 9, 28	3. Control Number: CAR-1
4. CA#, WBS#, or Functional Area: Various WBS Elements in July/Aug CPR Format 1		

5. REQUIREMENT: The ANSI-748B standard (guidelines 9 and 28) requires that a budget be established for each scope of work, that earned value and actual costs are recorded in the same timeframe for the same scope, and changes are processed in a timely manner including the movement of all three elements (BCWS, BCWP, and ACWP). These are required for management to make informed decisions on accurate data.

6. DISCUSSION: In reviewing the SRR CPR Format 1 for the months of July and August, it was noticed that there were a number of data quality issues. Some were associated with the recent rate adjustments, removal of pensions and medical costs from the contract, shifting of scope from one WBS element to another WBS element, or incomplete accounting actions leaving an ACWP without a BAC. Other issues included a zero current month BCWS, a positive BCWP, and a negative ACWP, or a zero BAC with a positive EAC. There are many examples in the report, below are just a few examples.

<u>WBS ELEMENT</u>	<u>BCWS</u>	<u>BCWP</u>	<u>ACWP</u>	<u>BAC</u>	<u>EAC</u>
01.90.01.21 Tank Closure	0	0	261	0	(261)
01.90.01.27.02 ECC Unit 1	0	2,000	(3,943)	8,322,970	8,384,546
01.90.02.08.07 Piping Mod	4,804	0	3,102	304,410	243,752
01.90.02.08.08 Coalescer	9,420	0	1,123	879,788	854,576
01.90.03.18.01 Melter #4	215,419	(165,516)	508,837	13,223,185	11,264,135
01.90.03.26 GWSF #3 SRR	24,786	24,786	(20,145)	4,814,460	4,851,008
01.90.04.01.01 through .07	0	0	0	0	Various

7. OBSERVATION/FINDING: The numerous data quality issues can adversely impact the CAMs ability to properly analyze potential performance issues and in turn, may impact management's ability to make informed decisions. This can also raise questions about the integrity of the data. Although SRR was aware of most of the issues and were able to explain the circumstances surrounding the quality issues, there was no indication that there was a sense of urgency to correct the issues or need to correct these issues in a reasonable amount of time. It should be noted that once the issues were discussed, SRR began taking actions to correct the data quality issues.

8. RECOMMENDATION: SRR should implement a monthly QA review of the CPR data to correct or identify anomalies being reported. Ensure accounting makes the adjustments required to move the ACWP to the correct WBS element; move EACs to the correct BAC, complete all of the rate adjustment corrections, and make sure all three reporting elements (BCWS, BCWP, and ACWP) are being reported in the proper WBS element.

Prepared By: L. Mucciario	Date: 11/6/12	Reviewed By: L. Mucciario	Date: 11/6/12	Contractor Reviewed:	Outbrief Date: 11/1/12
------------------------------	------------------	------------------------------	------------------	----------------------	---------------------------

1. Subject: EVMS System Description	2. Guideline Ref (if applicable): All	3. Control Number: CAR-2
4. CA#, WBS#, or Functional Area: SRR System Description		

5. **REQUIREMENT:** Once DOE EVMS certification is obtained, the Office of Acquisition & Project Management (APM) requires contractors to submit their EVMS system description to APM for review and approval once significant revisions to the document have been completed.

6. **DISCUSSION:** SRR has recently completed revising their system description to accommodate new direction from DOE on how SRR is to handle pensions and medical expenses; changes in allocating overhead, expanding roles and responsibilities, and other administrative changes. The revised document should be sent to APM for review and approval in order to maintain certification.

7. **OBSERVATION/FINDING:** This CAR was closed during the review with the submittal of the document to APM for review. No other action is required.

8. **RECOMMENDATION:** No other action is required.

Prepared By: L. Mucciario	Date: 11/6/12	Reviewed By: L. Mucciario	Date: 11/6/12	Contractor Reviewed:	Outbrief Date: 11/1/12
------------------------------	------------------	------------------------------	------------------	----------------------	---------------------------

Title: Continuous Improvement Opportunity (CIO) # 1	Page 1	Encode:	Rev #: 0
--	--------	---------	-------------

1. Subject: Estimate at Completion (EAC) Procedures	2. Guideline Ref (if appl): 27	3. Control Number: CIO-1
4. CA#, WBS#, or Functional Area: Functional Area: Analysis and Management Reporting		

5. REQUIREMENT:

Guideline 27 (ANSI/EIA-748B) requires: “Develop revised estimates of cost at completion based on performance to date, commitment values for material, and estimates of future conditions. Compare this information with the performance measurement baseline to identify variances at completion important to company management and any applicable customer reporting requirements including statements of funding requirements.”

DISCUSSION:

The SRR Earned Value Management System Description, SRR-IM-2010-00009, Rev 3 dated October 10, 2012, Section 11.6.1 Best Case and 11.6.2 Worst Case states: “If this estimate is different from the Most Likely EAC, the assumptions, conditions, and methodology underlying this estimate must be explained briefly in the CPR.” Section 11.6.3 Most Likely states: “The Most Likely estimate need not agree with the EAC internally generated by the CAMs but must reconcile to them. Any difference should be explained in the CPR in terms of risk, use of MR, or higher management knowledge of current or future contract.” These same reporting requirements can also be found in SRR Manual S14, Procedure 1.8 , Revision 4 dated September 18, 2012, Estimate at Completion (EAC) Procedure, Section 5.1.3 – Best Case EAC; Section 5.1.4 - Most Likely EAC.; and Section 5.1.5 – Worst Case EAC.

OBSERVATION/FINDING:

SRR is currently reporting the required EACs in the monthly CPR; however, SRR fails to explain the variances between the Best Case, Worst Case, and Most likely scenarios as required by the SRR EVMSD. In addition, in the Most Likely case, SRR is not reporting to DOE the differences between the internally generated EAC prepared by the CAMs and the amount reported in the Most Likely scenario by the PM.

RECOMMENDATION:

Recommend SRR managers and project controls ensure that the differences between the Best Case and Worst Case scenarios are briefly explained in the CPR, and the difference between the internally generated EACs by the CAMs and the Most Likely EAC generated by the PM is also explained in the CPR.

Prepared By: J. Stewart	Date: 07 Nov 12	Reviewed By: Lenny Mucciario	Date: 07 Nov 12	Supplier:	PMO:
----------------------------	--------------------	------------------------------------	--------------------	-----------	------

1. Subject: Sharing Analysis and Information Formats Between CAMs	2. Guideline Ref (if applicable): N/A	3. Control Number: CIO-2
4. CA#, WBS#, or Functional Area: Sharing Reports		

5. REQUIREMENT: None.

6. DISCUSSION: During the CAM interviews, several unique and individual data collection analysis tools, and techniques were being employed by the various CAMs to enhance or facilitate their ability to manage their scope of work. One example is the detail spreadsheet report, “A1CPR_Result_by FCat-CPR Frmt1 w/Hours Dollars by Funding Category” being kept by the CAM and his project controls team for Capital Asset Project SDU 3&5. There were many other examples identified during the CAM interviews.

7. OBSERVATION/FINDING: The review team determined that these special or unique documents or methodologies utilized by individual CAM to determine performance may be useful to the other SRR CAMs in performing their CAM functions.

8. RECOMMENDATION: SRR should consider developing a process or method for CAMs to share these unique or individual documents, analytical applications, and information with other CAMs. These approaches may lead to improved earned value determinations, reporting, and management of the CAMs scope of work.

Prepared By: B. Skokan	Date: 11/6/12	Reviewed By: L. Mucciario	Date: 11/6/12	Contractor Reviewed:	Outbrief Date:
---------------------------	------------------	------------------------------	------------------	----------------------	----------------

1. Subject: Variance at Completion Thresholds	2. Guideline Ref (if applicable): 27	3. Control Number: CIO-3
4. CA#, WBS#, or Functional Area: Variance at Completion Thresholds		

5. REQUIREMENT: ANSI-748B, guideline #27 states: Develop revised estimates of cost at completion based on performance to date, commitment values for material, and estimates of future conditions. Compare this information with the performance measurement baseline to identify variances at completion important to company management and any applicable customer reporting requirements including statements of funding requirements.

The NDIA Intent Guide for Guideline 27 states: “On a monthly basis, the control account manager should review the status of the expended effort and the achievability of the forecast and significant changes briefed to program management. This analysis should focus on performance to date within the control account, an assessment of the effort to complete the remaining work, and an evaluation of the type and quantity of resources required to complete the effort. When updates are made to existing forecasts of cost to complete, significant changes are briefed to program management. Prudent maintenance of the control account-level EAC by the control account manager ensures that the EAC reflects a valid projection of project costs. Comparisons of this estimate to budgets for the associated effort must be made frequently enough for management to ensure project performance and resource availability will not be adversely impacted. Prudent maintenance of the control account-level EAC by the control account manager ensures that the EAC reflects a valid projection of project costs”.

6. DISCUSSION: SRR established variance analysis threshold for three control account ranges; \$0-\$5M; \$5M-\$50M, and \$50M and above (see chart below). The current month, cumulative to-date, and variance at completion reporting requirements are based on a percentage and a dollar amount before an explanation is required. These were established as a result of a recommendation from the certification review; however, in reviewing the reporting threshold for control accounts in the \$5M-\$50M range the variance at completion threshold is established at 15% and \$5M. Therefore, any CA at the lower end of the range is not required to explain a VAC until a very high percent is breached. A hypothetical example: a CA with a BAC of \$5M will not have to explain a VAC until the EAC reaches \$10M, or double the BAC amount (100%). Some of the CAs with significant VACs that fall into this category (\$5M-\$50M) include: WBS 01.90.01.05- Tank 5 Closure, WBS 01.90.01.10-Tank 10 Closure, WBS 01.90.01.12- Tank 12 Closure, and WBS 01.90.01.25 Waste Removal & Tank. The VAC percentage for this category ranges from 100 percent at the low end (CA with a BAC of \$5M) to 20 percent at the high end (CA with a BAC of \$50M). Although the upper end of the range may be acceptable to management, the lower end of the range should not. VARs may not get explained until it is too late for corrective actions to be implemented.

7. OBSERVATION/FINDING: This observation was made during the SRR in-briefing on analysis and management reporting when the VAR threshold chart was presented. In reviewing the CPR there

Prepared By: A. Murphy	Date: 11/6/12	Reviewed By: L. Mucciario	Date: 11/6/12	Contractor Reviewed:	Outbrief Date:
---------------------------	------------------	------------------------------	------------------	----------------------	----------------

were a significant number of control accounts with a BAC that fell into the \$5M-\$50M range. Many were reporting a VAC with no explanations.

SRR VARIANCE ANALYSIS THRESHOLDS							
CA Range Minimum	CA Range Maximum	and		and		and	
		Threshold % Current Month	Threshold \$\$ Current Month	Threshold % Cum to Date	Threshold \$\$ Cum to Date	Threshold % VAC	Threshold \$\$ VAC
\$0	±\$5,000,000	±10%	±\$25,000	±10%	±\$100,000	±15%	±\$500,000
±\$5,000,001	±\$50,000,000	±10%	±\$100,000	±10%	±\$1,000,000	±15%	±\$5,000,000
±\$50,000,001	Max	±10%	±\$1,000,000	±10%	±\$5,000,000	±15%	±\$10,000,000

NOTE:

1. WBS Level 3 thresholds are determined by the Project Directors.
2. There are no predetermined IPABS thresholds. IPABS variances will continue to address the top contributors to the Total Project Cost and Schedule dollars variances. The Monthly IPABS Summary Narratives submittal will be made available to DOE upon request, regardless of the threshold limits.
3. Capital Asset Projects may establish more stringent VAR requirements in their PEP document.

8. RECOMMENDATION: SRR should review the VAC threshold for control accounts in the \$5M-\$50M range and determine if an adjustment is needed to provide management with additional visibility into the causes of the VAC.

Prepared By: A. Murphy	Date: 11/6/12	Reviewed By: L. Mucciario	Date: 11/6/12	Contractor Reviewed:	Outbrief Date:
---------------------------	------------------	------------------------------	------------------	----------------------	----------------

Title: Continuous Improvement Opportunity (CIO) # 4	Page 1	Encode:	Rev #: 0
--	--------	---------	-------------

1. Subject: VAR Improvement	2. Guideline Ref (if appl): 23	3. Control Number: CIO-4
4. CA#, WBS#, or Functional Area: Functional Area: Analysis and Management Reporting		

5. REQUIREMENT:

Guideline 23 (ANSI-748B) requires the following: “Identify, at least monthly, the significant differences between both planned and actual schedule performance and planned and actual cost performance, and provide the reasons for the variances in the detail needed by program management.”

The NDIA EVMS Intent Guide states the following regarding this guideline: “The purpose of this guideline is to ensure both significant schedule and cost variances are analyzed, at least monthly, at a level of detail required to manage the effort; i.e., to enable management decision-making and corrective action. Comparing the budget value of work completed to the budget value of work scheduled during a given period of time provides a valuable indication of schedule status in terms of dollars-worth of work accomplished.”

The SRR Earned Value Management System Description, SRR-IM-2010-00009, Section 10.3 Rev 3 dated 10/10/2012 states: “The performance measurement process constitutes the comparison at the CA level of the BCWS, BCWP and ACWP and the BAC and EAC for the identification of cost, schedule and at completion variances. VARs are required when external (as reported to the customer) and/or internal (as reported to SRR project management) thresholds are exceeded. The CAM is responsible for completing the VARs at the CA level”.

DISCUSSION:

The SRR System Description states that “CAM analyses will address the major contributors to variances that exceed the established thresholds. Each contributor to the variance should focus on cause, impact and corrective action. Analysis should take into account labor efficiencies, rate impacts, schedule changes, emphasis on specifics, revisions to EACs as warranted, completion of previously identified corrective actions, and status of current corrective actions.”

Since the SRR EVMS certification review completed in April 2010 many CAMs have showed significant improvement in preparing VARs; however, there are still a limited number VARs that do not clearly address the root causes and/or corrective actions and therefore, SRR management and DOE may not have a thorough understanding of the variance, and whether a project risk has been incurred.

OBSERVATION/FINDING:

CAMs should develop better explanations to include root causes and corrective action associated with their VARs. While the SRR System Description complies with the ANSI/EIA-748-B requirement, Project Controls should work with the CAMs to ensure causes and impacts are properly addressed.

RECOMMENDATION:

Recommend project controls work with the CAMs each month to ensure the VARs address the root cause, associated impacts on project scope, schedule, and budget, and the corrective actions.

Prepared By: J. Stewart	Date: 06 Nov 12	Reviewed By: Lenny Mucciario	Date: 07 Nov 12	Supplier:	PMO:
----------------------------	--------------------	------------------------------------	--------------------	-----------	------

Title: Continuous Improvement Opportunity (CIO)	Page: 1 of #1	Encode:	Rev : # 0
---	---------------	---------	-----------

1. Subject: SRR- EVMS Systems and Process Review	2. Guideline Ref (if applicable): 6 and 7	3. Control Number: CIO-5
4. CA#, WBS#, or Functional Area: WBS 01.90.02.01		

5. REQUIREMENT: ANSI-748B, Guideline 6.3c states: Does the scheduling system provide for the identification of work progress against technical and other milestones, and also provide for forecasts of completion dates of scheduled work? Guideline 7.a states: Are meaningful indicators identified for use in measuring the status of cost and schedule performance?

6. DISCUSSION: Several schedule discussions were held between the review team and the SRR Project Controls and CAMs responsible for the projects, SDU 6, SDU 3&5, and Tank Farm Operation Process of Sludge Batch 8. There were indications that there may be some disconnects between the forecast schedule and the data in Cobra. SRR spent some time explaining the process utilized to update the percent complete in Cobra from the schedule.

7. OBSERVATION: The forecast schedule did not reflect the same percentage complete as reported in Cobra for some apportioned activities. One example is when the apportioned activity was split. Due to a limitation in Primavera; when work resumed, the 2nd half of the apportioned component is not automatically updated, but has to be manually updated based on the progress made in the activity that is linked to that apportioned activity. While this is an acceptable approach, there is a risk of not properly reporting progress for that activity if it is not consistently updated manually during each reporting period. There were a few cases where the updating was not taking place. In addition, there were a few activities where the EV technique was miscoded. For example, activities coded with a “C” (percent complete) should have been coded with a “J” or “X” (Apportioned).

8. RECOMMENDATION: SRR should provide the SRS scheduler an explanation of the process utilized to update the internal schedule. Due to the limitations of the scheduling tool, SRR should track and ensure split tasks that are apportioned are manually updated on a monthly basis. In addition, periodic quality assurance checks on the schedule should be performed to ensure its accuracy and completeness.

Prepared By: D. Jani & W. Figueroa	Date: 11/6/12	Reviewed By: L. Mucciario	Date: 11/6/12	Contractor Reviewed:	Outbrief Date:
--	------------------	------------------------------	------------------	----------------------	----------------