U.S. Department of Energy
Office of Management

Draft
Concept of Operations
for PARS II

Draft Version 1.3
July 28, 2009

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Title Page

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Change Control Page

The change control page contains information about revisions to the document and should be updated before each release of the document.

Revision Date	Original Version	New Version	Section & Title	Page Numbers	Summary Of Changes	Author
11/12/08	1.0	1.1	2.1	8	Removed the non-contextual reference to ANSI 748 in original version of document.	Ayers
11/12/08	1.0	1.1	2.1	8	Changed the original statement to read: "**Data Validation** – the PARS II application will enforce data validation rules described in the Business Rules Section of this document."	Ayers
11/12/08	1.0	1.1	8.1.1	25	Changed the original statement to read: "Training – PARS II User Manual (Role Based), on the job training, computer based training".	Ayers
11/12/08	1.0	1.1	8.1.3.1	28	Changed the original statement to read: "Reports from the Contractor Project Performance Module – will consist of CPR Formats 1-5 …"	Ayers
6/19/2009	1.1	1.2	8.1.3.1. Data Collection, Validation, Workflow Control, Data Review & Approval, paragraph "Contractor Project Performance Module", sub-paragraph "Configuring Sites".	27	Removed two activities in this section, at the request of DOE	Ayers
7/28/2009	1.2	1.3	All	All	Updated References of OECM to DOE wherever applicable	Kai

Table of Contents

1 PURPOSE OF THIS DOCUMENT

The Concept of Operations is a description of how the Project Assessment and Reporting System, called PARS II, will be used. This document is non-technical in nature and is presented from the viewpoints of the various stakeholders. An implementation plan will follow to addresses how the concepts presented in this document will be put into practice.

The Concept of Operations document describes how the system is expected to operate in its intended environment and can be used to support the validation of the system, training, and development of documentation for the system.

2 SCOPE OF THE PROJECT

This section provides a brief overview of the system to be built. It includes its purpose and a high-level description. It describes what area will be covered and which organizations will be involved, either directly or through interfaces.

The scope of this project is based on the requirements contained in the Department of Energy (DOE) Statement of Work for the PARS II Project, dated June 3, 2008, which calls for a new version of PARS to be implemented that delivers project status and assessment information to Department of Energy (DOE) senior managers and key program stakeholders.

The overarching requirement under this task order is to enhance PARS or acquire and implement a new Commercial Off-The-Shelf application to replace the current PARS. These requirements include delivery of the following documents and major activities:

- COTS Software Acquisition (using ODCs);
- Cyber Security Certification & Accreditation (C&A);
- Application Hosting (including COOP);
- Installation & Configuration;
- Data Migration;
- Documentation and Training (Role Based);
- Other Related Activities as Necessary.

The deliverables for this project, from the DOE Statement of Work CLIN 2 are listed below.

- Concept of Operations
- Site Deployments - starting with two beta test sites from the DOE Energy Management Program Office
- Cyber Security Certification & Accreditation (C&A)
- Data Migration
- Training (e.g. Senior. Management, OECM & Program Office Analysts, Federal Project Directors)
- Periodic Capabilities Enhancements
- Operations & Maintenance of PARS
- Help Desk Services for PARS Users

- Project Plan/Schedule (phased, with explicit entrance/exit criteria)
- Communication Strategy/Plan
- Test Strategy/Plan
- Training Strategy/Plan
- Data Migration Strategy/Plan
- Site Deployment Strategy/Plan
- Subcontract for Procurement of Core COTS Software
- Procurement of (Perpetual) Software Licenses (Site license)
- Procurement of Annual Software Maintenance
- Prototype Screen Shots of Principle Data Entry Screens
- Reports Documentation (list of standard DOE reports and their layouts)
- Data Interchange Memorandum of Understanding (MOU) (e.g., which data elements, in what format, when transmitted, who is responsible for what, etc.)
- Hosting Environments (including fully integrated COTS/custom software and configured PARS II "portal")
- Development Environment
- Test Environment
- Training Environment
- Production Environment
- Training Materials (e.g., CBT, "cheat sheets")
- Data Dictionary
- User Manual(s) (role based)

The high-level design of PARS II, as described in the Concept of Operations document, is based on the Statement of Work, as well as Department of Energy orders/manuals/guidance, industry standards, and requirements obtained from key stakeholders. The list of documents being used in the design process appears below.

- Department of Energy Order 413.3A, July 28, 2006;
- Department of Energy Manual 413.3-1, March 31, 2003;
- Department of Energy Guide 413.3-10, "Earned Value Management System", May 6, 2008;
- Department of Energy OECM "ART Database";
- PARS Data Input Requirements, Published by PPC, March 2006;
- Dekker LTD Product Literature and End-User Documentation;
- National Defense Industrial Association Program Management Systems Committee "Earned Value Management Systems Intent Guide" (for ANSI/EIA 748-A), November 2006 Edition;
- Conference Records from meetings with DOE;
- The PARS Functional Requirements Document, March 2007;
- Conference Records and Notes from meetings with Dekker LTD.

This version of the Concept of Operations document will be placed under configuration management control and will be revised periodically, under the following conditions:

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- When directed to do so, by the Federal Technical Monitor;
- After the initial review meeting with the Federal Technical Monitor and key stakeholders;
- At the completion of each discovery session;

- At completion of each beta test;
- After peer reviews.

2.1 High-Level Description

The next generation of PARS will offer enhanced data collection, data validation, and data reporting capabilities. The system performance of the application, as measured by the time it takes to enter data, process data and run reports, will also be improved (a system performance baseline will be established for PARS 1 and will be used as a yardstick for measuring PARS II system performance).

PARS II will built be around a Commercial-Off-The-Shelf (COTS) product, called Dekker Project Management Information Systems (PMIS). At its core, PARS II will continue to function as a project management tracking and control system. The key features of PARS II are listed below.

- **Collect Contractor Performance Data** - the ability for contractors to upload project performance data to the PARS II server at Headquarters, in one or more files containing earned value, schedule, variance logs, risk logs and other data.
- **Collect DOE Oversight & Assessment Data** - the ability to collect summary-level data for each project at month end and other times. Summary-level data will include project assessments, milestone completion dates, estimates for completion, etc. and be provided by the Federal Project Director, the Program Office and OECM Analysts. This data will be stored on the PARS II server and will be integrated with contractor project performance data.
- **Data Entry Workflow** - entry of summary-level data will follow the processing sequence for critical decision milestones, as described in the Department's Acquisition Management System for Line Item Projects (DOE Order 413.3A).
- **Data Validation** – the PARS II application will enforce data validation rules described in the Business Rules Section of this document.
- **Tracking PB & PMB** – PARS II will provide software and methods to manage the Performance Baseline (PB) and the Performance Measurement Baseline (PMB).
- **Analysis Tools –** software tools for "drilling-down" through data and for permitting the authorized user to update the underlying data.
- **Reports on the Web:** standard reports, custom reports, dashboards and the DepSec Report.. Internet-wide access to project data and reports, by authorized personnel, using industry standard web browsers.
- **Application Hosting** - at DOE's Application Hosting Environment in Germantown, MD.
- **Cyber Security** – certification and accreditation of the application
- **Training** - and Training Materials
- **PARS Help Desk** – providing technical and business assistance to members of the PARS II user community.

2.2 Organizations Involved

The following DOE organizations will be involved in the design, development, funding, operating or use of the system:

- Office of Engineering and Construction Management – for project scope, project

requirements, project guidance, project approval and overall funding;
- Office of Energy Management (EM) – for providing access to sites involved in beta testing for providing requirements related implementation at beta test sites;
- Office of Chief Information Officer – for assistance and approval of cyber security certification and accreditation, and to providing computer application hosting services;
- Office of the Secretary – The Deputy Secretary will use the DepSec Report and other information from PARS II;
- Office of Management – The Director of Management will use the DepSec Report and other information from PARS II.

3 REFERENCES

This section lists the supporting documents that were used to develop an understanding of the governing policies, business requirements and operation of the system.

- United States Department of Energy Order 413.3A, July 28, 2006
- United States Department of Energy Manual 413.3-1, March 31, 2003
- United States Department of Energy Guide 413.3-10, "Earned Value Management System", May 6, 2008
- United States Department of Energy, Office of Management, Budget and Evaluation, "Project Management Best Practices - Work Breakdown Structure", June 2003
- United States Department of Energy, Office of Management, Budget and Evaluation, "Project Management Best Practices – Critical Decision Packages", June 2003
- United States Department of Energy, Office of Management, Budget and Evaluation, "Project Management Best Practices – Performance Baseline Development and Validation", June 2003
- United States Department of Energy Website, Office of Management, Office of Engineering and
- Construction Management: http://management.energy.gov/project_management.htm
- The template for the Concept of Operations document was based on the following standards: ANSI/AIAA G-043-1992 standard and IEEE Standard P1362 V3.2.
- OECM "ART Database", developed by OECM (Brian Kong)
- Dekker product literature and documentation
- PARS Data Input Requirements, Published by PPC, March 2006
- National Defense Industrial Association Program Management Systems Committee "Earned Value Management Systems Intent Guide" (for ANSI/EIA 748-A), November 2006 Edition.

4 PROJECT BACKGROUND

This section provides a brief description of the current system and how it is used.

4.1 PARS Version 1 - Overview

The Project Assessment and Reporting System, called PARS, is a product of the Department of Energy's project reform initiative that was launched in June 1999. The PARS computer application was developed as a web-based solution to collect, store and deliver project status and assessment information to Department of Energy (DOE) senior managers and key program stakeholders. The application uses a subset of Earned Value Management System (EVMS) standards.

At this time, PARS continues to operate at DOE Headquarters and Field Sites across the nation. Data entry is done primarily Federal Project Directors to enter monthly project status, project assessment, and top-level Earned Value (EV) data for projects. Standard reports are run by Program Office Analysts and OECM Analysts to view project assessments, estimates for completion, remaining management reserve, progress on milestones and other summary-level data. EVMS reporting uses cost and schedule performance metrics to show progress against an integrated performance baseline.

4.2 History of PARS

In July of 1999, DOE announced the Project Management Reform Initiative, a department wide initiative designed to increase accountability and improve performance within the Department's project management and control systems. The objective of that initiative was to provide effective program and project acquisition systems such that DOE projects are delivered on time, within budget, and fully capable of mission performance. A critical element of the initiative was to establish a project management tracking and control system. This system would provide a corporate ability to track and report on Departmental projects using common project management data.

In 2001, DOE contracted with the Project Performance Corporation (PPC) to develop a solution now known as the Project Assessment and Reporting System (PARS). Since its creation, PARS has been modified to adapt to requirements associated with changes in policy, guidance and technology.

Although PARS accomplished many of its original goals, deficiencies were identified. In April of 2006, DOE set out on the path to replace PARS by identifying new requirements and to search for a replacement system.

4.3 Deficiencies with PARS

The deficiencies and limitations of PARS are listed below.

PARS Deficiencies

- System Availability – web screens will occasionally "disconnect" from the server, causing a loss of data, re-entry of data and user frustration.

- System Performance – users complain that PARS is slow, stating that it can take too much time to go from screen to screen. Other users state that the generation of reports can be a time-consuming process.

- Data Integrity – entry of data for some data elements is not required, allowing users to bypass the entry of information into key fields; thus causing gaps in data and inconsistency in reporting.

- Data Validation – validation of data elements during data entry sessions is insufficient to assure the accuracy of data. More validation of data elements is required (e.g., more drop-down boxes, list of values, etc.).

- Duplication of Effort – users must enter the Project ID on every screen. When entering data, the user should have to the project ID on the first screen, not on every screen.

- More Intuitive Graphic User Interface – users have complained that the screen interface should be redesigned to be more intuitive, and to make greater use of on-line help.

- Audit Trails - the system should have expanded audit trail capabilities, so that the administrator can tell "who-changed-what-and- when".

- File Upload – the system should have the ability to upload files containing EVM and schedule data from contractor sites.

- Performance Management Baseline (PMB) – the system must be able to collect the contractor's performance management baseline

- Better Reporting – the system should be able to track portfolios of projects, provide data drill down capabilities, conduct trend analysis, provide dashboards, and provide a special report for the Deputy Secretary, offer forecasting capabilities.

- Group Data: the system should also be able report on "groups of data", such as Portfolio Identity, Project Identity, Sub-Project Identify, Segment Identify, Responsibility, Scope, Cost, Schedule, Budget Request, Project Status, Earned Value, Performance Baseline, Performance Measurement Baseline

- Resolve Deficiencies: the system should resolve the deficiencies listed in the section above.

4.4 PARS Version II

In 2006, Energy Enterprise Systems (EES) was tasked by DOE to gather requirements for a replacement system for PARS. Interviews were conducted with key stakeholders and a functional requirements document was developed. In 2007, EES conducted market research and evaluated products from twelve commercial solutions providers who had the ability to meet or exceed DOE's requirements. At the end of the evaluation period three companies were invited to return and demonstrate their products: Primavera/Prosight, Dekker/PMIS and Deltek/Cobra. After additional demonstrations and meetings, the Dekker PMIS system was chosen by representatives from DOE and EES.

5 CONCEPT FOR THE PROPOSED SYSTEM

5.1 Alternative Concepts Explored

The following alternatives for replacing PARS 1 were explored:

- Redesign and re-write PARS 1
- Purchase and implement a COTS solution, as a replacement for PARS 1

5.2 Justification for the Selected Approach

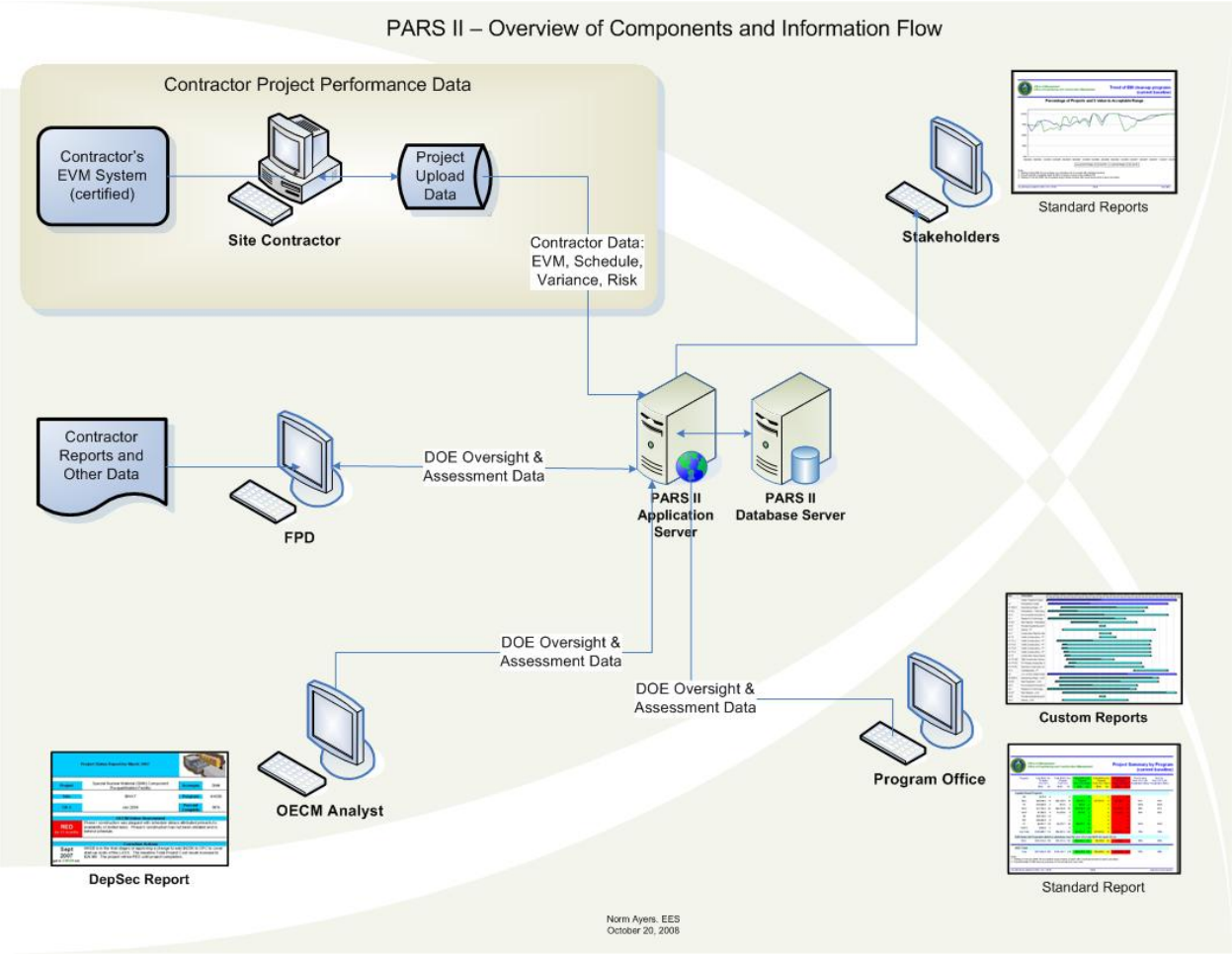
The justification for choosing a COTS solution appears below.

- EES believes that the Dekker PMIS solution offers DOE the greatest flexibility for complying with new and existing requirements.

- Dekker PMIS was chosen over another solutions provider (Primavera Prosight) at a demonstration held on September 27, 2008, by a show of hands from attendees from DOE staff and EES personnel. Dekker PMIS was also chosen over the Deltek Cobra product at a meeting attended by DOE in May 2008.

5.3 Diagram of Operational Concept for Selected Approach

A diagram of the operational concept for the selected approach appears below. It shows the major hardware components of the system, the locations where data will be collected, the types of data to be entered, the flow of the data, and several key reports.



6 USER ORIENTED OPERATIONAL DESCRIPTION

6.1 Governing Policies and Standards

The most relevant policies and standards that govern the design and operation of the system are listed below.

- DOE Order 413.3
- DOE Manual 413.3
- DOE Guidance 413.3 G10
- ANSI Standard 748-A
- ANSI Standard 748-B

6.2 Organizational Structures and Missions

This section lists all of the organizations that may use the system. A list of DOE Program Office Codes can be found in the Appendix Section of this document.

DOE Senior Leadership

- **Office of the Secretary:** Jeffrey F. Kupfer , Acting Deputy Secretary of Energy

DOE Program Offices

- **Office of Environmental Management:** The Office of Environmental Management (EM) works to mitigate the risks and hazards posed by the legacy of nuclear weapons production and research.

- **Office of Science**: The Office of Science is the single largest supporter of basic research in the physical sciences in the United States, providing more than 40 percent of total funding for this vital area of national importance.

- **Office of Civilian Radioactive Waste Management:** The mission of the Office of Civilian Radioactive Waste Management is to manage and dispose of high-level radioactive waste and spent nuclear fuel in a manner that protects health, safety and the environment; enhances national and energy security; and merits public

- **Office of Nuclear Energy:** The Office of Nuclear Energy mission is to support the nation's diverse nuclear energy programs.

- **Office of Electricity Delivery and Energy Reliability:** The mission of the Office of Electricity Delivery and Energy Reliability is to lead national efforts to modernize the electric grid, enhance the security and reliability of the energy infrastructure, and facilitate recovery from disruptions to the energy supply.

- **Office of Fossil Energy**: Ensuring that we can continue to rely on clean, affordable energy

from our traditional fuel resources is the primary mission of DOE's Office of Fossil Energy.

- **Office of Management:** The Office of Management is comprised of the Offices of Administration, Engineering and Construction Management, Procurement and Assistance Management, Aviation Management, Scheduling and Advance, Competitive Sourcing, and the Executive Secretariat.

    - **Office of Engineering and Construction (OECM) Analysts** – will use PARS II to review, edit, assess and approve data collected from sites.

- **Office of Public Affairs:** The Office of Public Affairs is responsible for serving as the chief spokesperson for the Department as well as managing and overseeing the Department's liaison on public affairs efforts, which includes public information activities, press and media services, DOE home-page content, speaking engagements, special projects, internal communications and editorial services.

- **Chief Information Officer:** The Office of the Chief Information Officer is responsible for the design, implementation, and continuing successful operation of Information Technology programs and initiatives throughout the Department and its offices.

National Nuclear Security Agency (NNSA)

- NNSA is a separately organized agency within the Department of Energy responsible for the management and security of the nation's nuclear weapons, nuclear nonproliferation, and naval reactor programs. It also responds to nuclear and radiological emergencies in the United States and abroad. Additionally, NNSA federal agents provide safe and secure transportation of nuclear weapons and components and special nuclear materials along with other missions supporting the national security.

Power Marketing Administrations

- **Western Area Power Administration** markets and delivers reliable, cost-based hydroelectric power and related services within a 15-state region of the central and western U.S. Its role is to market and transmit electricity from multi-use water projects. The WAPA transmission system carries electricity from 55 hydropower plants operated by the Bureau of Reclamation, U.S. Army Corps of Engineers and the International Boundary and Water Commission. Together, these plants have a capacity of 10,600 megawatts. Western and its energy-producing partners are separately managed and financed. In addition, each water project maintains a separate financial system and records.

6.3 Stakeholder Roles and Responsibilities for PARS II

The table below contains the list of all stakeholders who may be involved in the operation and use of PARS II.

#	Role	Name	Org	Relevant Responsibilities
1	DOE Deputy Secretary	Jeffrey Kapfer	DOE	(1) Serves as the senior manager responsible and accountable for all project acquisitions. (2) Exercises decision-making authority, including Critical Decisions for all Major System Projects. (3) Identifies special interest projects and ensures senior executive-level quarterly reviews are provided for those projects. (4) Approves disposition of projects and Performance Baseline changes at the Secretarial Acquisition Executive approval level upon Performance Baseline deviations. (5) Conducts quarterly project performance reviews for Major System Projects, which may be delegated to the Under Secretaries.
2	DOE Acquisition Executives	Program Office Specific	DOE	(1) Approves Critical Decisions (CD-0 cannot be delegated below the Program Secretarial Officer level). (2) Approves the appointment of the Federal Project Director. (3) Designates the Design Authority at CD-1. (4) Monitors the effectiveness of Federal Project Directors and their support staff. (4) Approves project changes in compliance with change control levels identified in Project Execution Plans. (5) Conducts monthly and quarterly project performance reviews.
3	DOE Director of Office of Management (MA)	Ingrid Kolb	DOE	Reviews and edits the monthly and quarterly versions of the DepSec Report and presents these reports to the DepSec.
4	DOE CFO Analyst	Several	DOE	(1) Reviews and edits the monthly and quarterly versions of the DepSec Report and presents this information to the Director of MA. (2) Provides funding profile information for PARS.
5	DOE Director of OECM (Office of Engineering and Construction)	Paul Bosco	DOE	(1) Supports the Office of the Secretary, the Secretarial Acquisition Executive, the Under Secretaries, and the Program Secretarial Officer in the Critical Decision process and oversight of the acquisition management process. (2) Manages the Earned Value Management System certification process. (3) Reviews Acquisition Strategies for Major System Projects. (4) Maintains a corporate project reporting capability. (5) Validates the Performance Baseline for all

#	Role	Name	Org	Relevant Responsibilities
				capital asset projects with a Total Project Cost or Environmental Management Total Project Cost greater than or equal to $100M to permit inclusion in the DOE annual budget.
6	DOE Director of Projects for OECM	Robert Raines	DOE	(1) Oversees the production and quality of information generated by PARS and OECM staff. (2) Provides direction in the design of PARS II. (3) Uses custom reports from PARS to analyze, investigate and resolve project-related problems. (4) Manages OECM Analysts and support staff.
7	DOE OECM System Owner and Technical Monitor for PARS II	John Makepeace	DOE	(1) As the federal technical monitor, oversees the design and development effort for PARS II. (2) Oversees the DOE budget, schedule, scope and quality related to the development and implementation of PARS II. (3) Provides guidance and requirements to the PARS II Project Team. (4) Determines if proposed changes fall within scope of the Statement of Work. (5) Approves changes to PARS II (6) Coordinates access to DOE personnel and resources.
8	DOE Program Managers and Heads of Field Organizations.	Many	DOE	(1) Initiates definition of mission need based on input from Sites, Laboratories, and Program Offices. (2) Oversees the development of project definition, technical scope, and budget to support mission need. (3) Initiates development of the Acquisition Strategy before CD-1 (during the period preceding designation of the Federal Project Director). (5) Develops project performance measures, and monitors and evaluates project performance throughout the project's life cycle. (6) Serves as the Federal Project Director until the Federal Project Director is appointed.
9	DOE Program Management Support Office (PMSO)	Program Office Specific	DOE	(1) Coordinates quarterly performance reports. (2) Performs Performance Baseline Validation Independent Project Review and other Independent Project Reviews as required by the Program Secretarial Officer. (3) Coordinates with other DOE organizations and offices, including the Office of Engineering and Construction Management, to ensure effective and consistent implementation of project management policies and directives. (4) Provides assistance and oversight to line project management organizations. (5) Provides support to the Federal Project Directors. (6) Validates the Performance Baseline for capital asset projects with a Total Project Cost or Environmental Management Total Project Cost

#	Role	Name	Org	Relevant Responsibilities
				greater than or equal to $20M and less than $100M.
10	DOE Program Office Analyst	Many	DOE	(1) Monitors project status, problems and issues using standard and custom reports generated by PARS. (2) Monitors the Performance Baseline in PARS II. (3) Monitors project status, problems and issues using standard and custom reports from PARS.
11	DOE OECM Analysts	Many	DOE	(1) Reviews and analyzes information from PARS. (2) Approves or disapprove project upload file data submitted by contractors. (3) Generates standard reports, custom reports, dashboards, and the DepSec Report using PARS II (4) Establishes and monitors the performance baseline on a monthly basis.
12	DOE Federal Project Directors	Site Specific	DOE	(1) The Federal Project Director is responsible and Is accountable to the Acquisition Executive / Program Secretarial Officer or delegated authority, as appropriate, for executing the project. (2) The Federal Project Director's assigned project must meet cost, schedule and performance targets unless circumstances beyond the control of the project direct result in cost overruns and/or delays. (3) Federal Project Directors must demonstrate initiative in incorporating and managing an appropriate level of risk to ensure best value for the government. In cases where significant cost overruns and/or delays occur, the Federal Project Director alerts senior management in a timely manner and takes appropriate steps to mitigate these cost overruns or delays. (4) Roles and responsibilities of the Federal Project Director's team must be clearly defined relative to the contractor management team. (5) Attains and maintains certification in concert with the requirements outlined in DOE O 361.1A before they are delegated authority to serve as a Federal Project Director. (6) Plans, implements, and completes a project using a Systems Engineering approach. (6) Initiates development and implementation of key project documentation (e.g., Project Execution Plan). (7) Defines project cost, schedule, performance, and scope baselines. (8) Is responsible for timely, reliable, and accurate integration of contractor performance data into the project's scheduling, accounting, and performance measurement systems. (9) Evaluates and verifies reported progress;

#	Role	Name	Org	Relevant Responsibilities
				makes projections of progress and identifies trends. (10) Serves as the single point of contact between Federal and contractor staff for all matters relating to a project and its performance. (11) Serves as the Contracting Officer's Representative, as determined by the Contracting Officer.
13	Contractor – Site Project Manager	Site Specific	Contractor	(1) Assures that contractor's project performance data and schedule are accurate and in a format that is acceptable for upload to PARS II. (2) Assures that project upload file has been validated and sent to DOE Headquarters each month.
14	Contractor – Site Project Control Analyst	Site Specific	Contractor	(1) Prepares, validates and submits the project upload file to DOE Headquarters each month, via the PARS system (2) Corrects errors in the project upload file and re-submits to Headquarters if errors were detected by OECM and PO HQ personnel.
15	DOE Applications Hosting Environment	Tom Saldari	DOE	Maintain the computer systems and networks at DOE's Applications Hosting Facility.

6.3.1 PARS II User Group Names

The following groups will have access to PARS II. The names of these groups and their assigned responsibilities may change during the design phase of the project.

- Contractors at Sites (e.g., primarily project control analysts at each site)
- DOE Federal Project Directors (FPD)
- DOE OECM Managers
- DOE OECM Analysts
- DOE Program Managers
- DOE Program Office Analysts
- DOE Senior Managers (Secretary, MA, CFO, etc)
- PARS System Administrators
- PARS Help Desk

6.3.2 PARS II User Group Rights and Permissions

Group access rights to data and functions within PARS will be groups as follows.

- View Privilege – users within this group can view information.

- Update Privilege – users within this group can view and or update information.

- Approval Privilege – users within this group can view and update information owned by their organization and can also approve or reject information to be stored.

6.3.3 PARS II User Roles and Responsibilities

The table below was provided by John Makepeace from OECM on October 6, 2008. The table contains the list of proposed roles and responsibilities for people who will use PARS II.

PARS User Roles and Responsibilities

PARS Data Class	Responsible Role	Access Rights
General Project Info (e.g., ID, name, FPD)	FPD (or PO prior to FPD appointment)	Update
Budget Profiles	OECM	Update
Performance Baseline Data (including BCPs, CDs, etc.)	OECM	Update
Monthly Performance Data	Contractor	Update
Monthly Assessment Data	Chain: FPD, PO, OECM[1]	Update
Monthly Reserve Usage	Contractor	Update
Monthly Contingency Usage	FPD	Update
EVMS Certification Status	OECM	Update
FPD Certification Status	OECM	Update
Fees	FPD	Update

1 At the October 7 2008 PARS Weekly Meeting, John Makepeace stated that the Program Office Analyst should have the ability to write the same types of assessments that are written by the FPD and OECM Analyst. John also said that the Program Office Analyst should be able to read the FPD's assessment but not read the OECM Analyst's assessment … and the OECM Analyst should be able to read the FPD's Assessment and the Program Office Analyst's assessment.. The FPD should not be able to read the Program Office Analyst's assessment or the OECM Analyst's assessment.

7 OPERATIONAL NEEDS

This section describes the vision, goals & objectives, and personnel needs that drive the requirements for the system. Specifically, it describes what the system needs to do that it is not currently doing.

Vision

Support DOE management's vision to implement a system that provides "data transparency" of information being shared between site contractors, Program Office and Headquarters personnel

Primary Goal

The primary goal of the this project is to replace PARS 1 with the Dekker PMIS software product and to implement the application in such a way that it provides management, analysts and users with a "single source of truth" of data, to be presented in useful and meaningful formats.

Primary Objectives

- To produce the deliverables described in the DOE Statement of Work
- To implement PARS II Contractor Project Performance module data collection and reporting capabilities at several sites and to prove that EVM and schedule data can be successfully uploaded, validated, and integrated with oversight and assessment data.
- To implement the PARS II Oversight and Assessment module at locations across the complex, to collect and validate summary-level information, to integrate this summary-level information with contractor project performance data, and to provide stakeholders with a powerful and robust reporting system.
- To implement other required functionality, as described in the section titled "Scope of System" this document.

System Needs Not Currently Being Met

- PARS II will be designed and configured to address the deficiencies and limitations described in the Deficiencies Section of this document

8 SYSTEM OVERVIEW

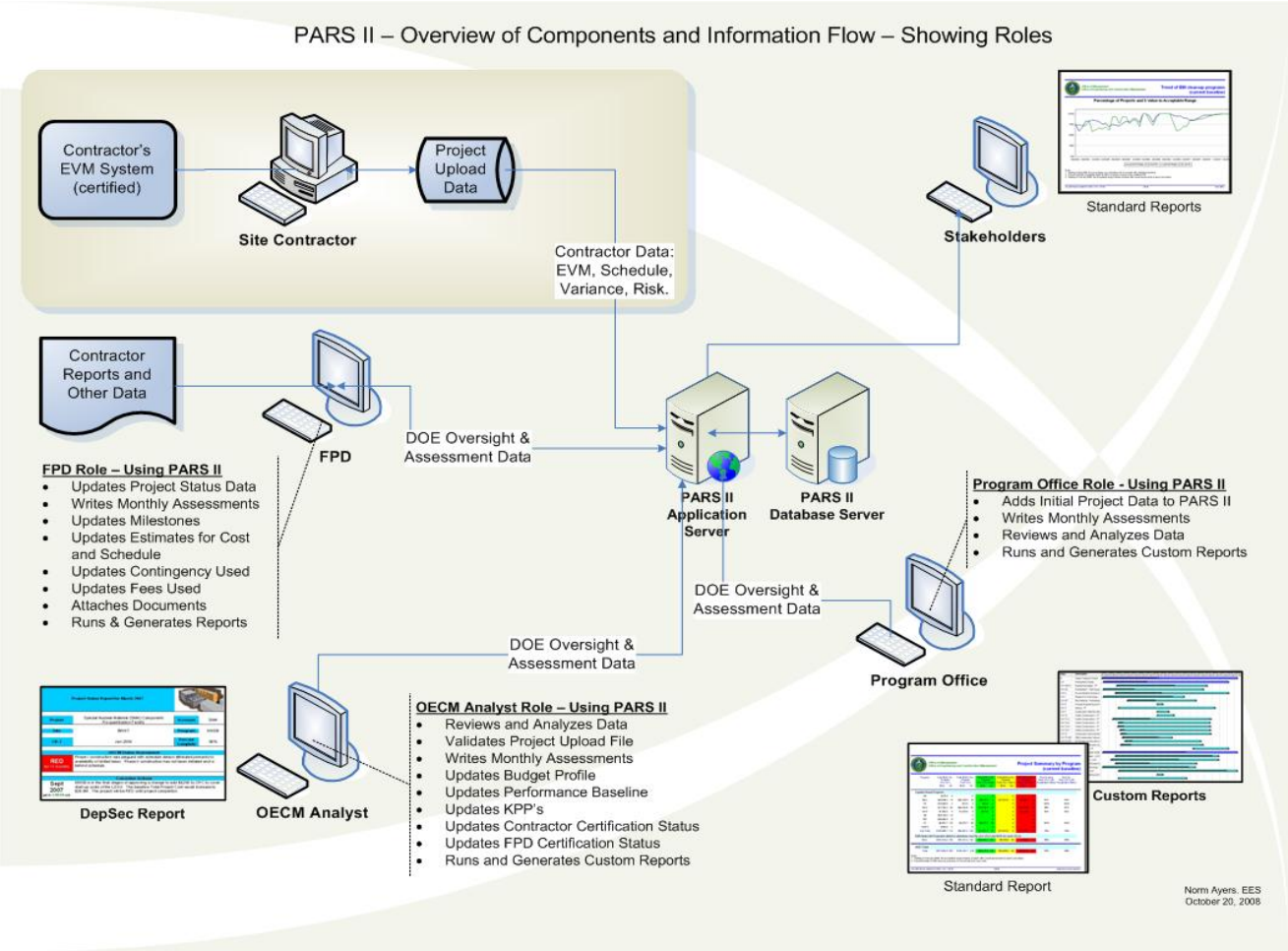
This section provides an overview of the system to be developed. It describes its scope, the users of the system, what it interfaces with, planned capabilities, its goals and objectives, and the system architecture. Note that the system architecture is not a design [that will be done later]. It provides a structure for describing the operations, in terms of where the operations will be carried out, and what the lines of communication will be.

8.1 Scope of System

This section provides a more detailed description of the scope that was defined in the Scope Section of this document.

8.1.1 Scope Overview

PARS II is a computer application that will be implemented at DOE Headquarters and at DOE Field Sites across the nation. Its purpose will be to collect project performance and project oversight data from these locations and to provide management, analysts and users with a robust reporting system for tracking the health of projects. A diagram of major scope features and user roles appears below.



8.1.2 Scope Deliverables

A summary of key deliverables for PARS II, as contained in the DOE Statement of Work, are listed below.

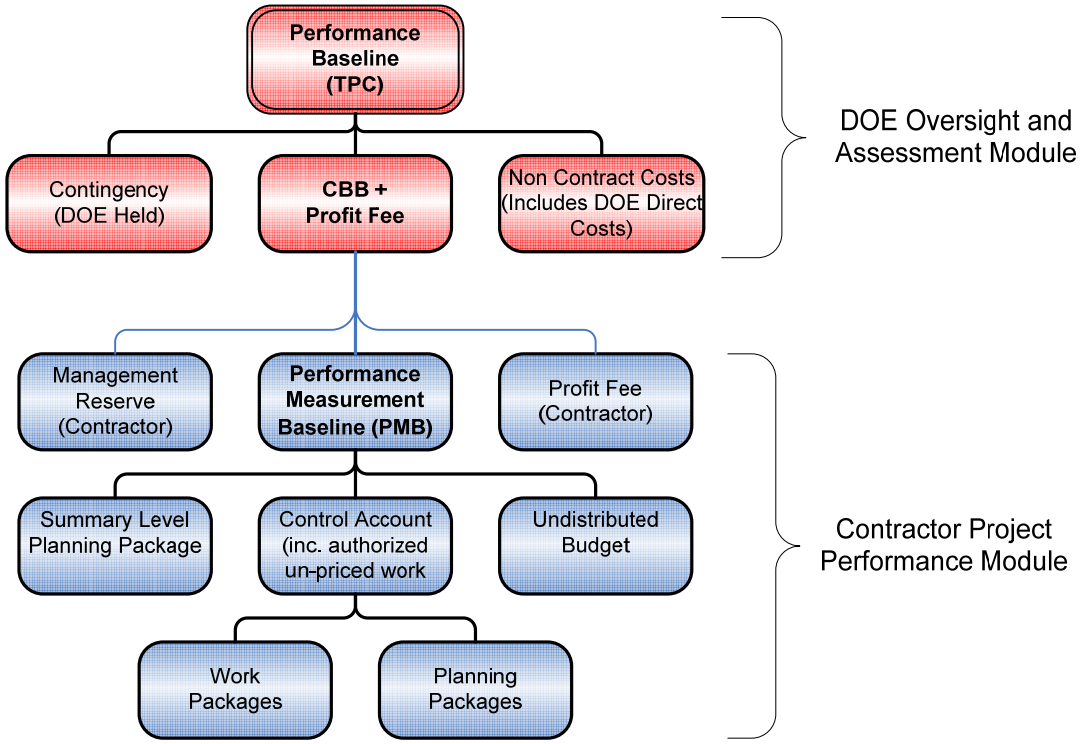
1. The Concept of Operations document.
2. Design and configure the Contractor Project Performance module, to be deployed at two EM sites before December 2008.
3. Design and develop the Oversight and Assessment module – to be deployed across the DOE complex in 2009 and to be used to collect summary-level data.
4. Data Migration – analyze, filter and transform project data from the ART system to the Oversight and Assessment section of the PARS II database.
5. Training – hands-on training for contractors, Federal Project Directors, OECM Analysts, and Program Office Analysts.
6. Training – PARS II User Manual (Role Based), on the job training, computer based training
7. MOU – a memorandum of understanding for each EM site that uploads data to DOE.
8. Reports – design and deliver standard, customized, dashboard and DepSec reports.
9. Hosting Environment – implement computer hardware, software, database, network, computer services help desk.
10. Help Desk – implement the PARS II Help Desk at EES.
11. Operate and Maintain PARS II.
12. Enhance PARS II.
13. Write the Planning and Communications documents.
14. Implement Cyber Security C&A for PARS II, after the beta test sites have been approved.

8.1.3 Scope Details

8.1.3.1 Data Collection, Validation, Workflow Control, Data Review & Approval

The PARS II data collection model is based on guidance described in the DOE EVMS Gold Card (DOE Guide 413.3-10, Appendix B). The upper right-hand corner of the DOE EVMS Gold Card shows a graphic that illustrates the hierarchy and relationship of key data elements to be used in the Department's Earned Value Management system. A reproduction of this graphic appears below.

Figure 1 - DOE Gold Card – Reproduction of Data Elements and Hierarchy



DOE Oversight and Assessment data, the red shaded portion of the graphic, will be collected using the PARS II Oversight and Assessment software module. This data collection effort will be performed by DOE federal employees such as the FPD, OECM Analyst, and Program Office Analyst. The contract's earned value and schedule, the blue shaded portion of the graphic, will be collected from the contractor site using the PARS II Contractor Project Performance module. Both modules are described in this section.

1. Contractor Project Performance Module

Contractors at sites will be asked to configure their EVM scheduling system and procedures to generate one or more ANSI 748 compliant files (also known as project upload files) containing EVM and schedule data. After generating and validating upload files, each contractor will send (upload) the files to the PARS II server where the files will be error-checked, approved, integrated with other data, and then analyzed. The PARS II Site Project Team will assist contractors with the configuration of their scheduling system, file upload and training needs, if required. Other operational aspects and features of this module are listed below.

- **Configuring Sites**: Members from the PARS II Site Project Team may be required to assist contractors with their configuration, file upload and training needs. Assistance may involve an initial visit to the contractor's site to conduct a requirements gathering (aka discovery) session for the purpose of assessing the contractor's scheduling system, level of technology, and availability of resources. One or more follow-up visits may be made to the site to assist the contractor with the configuration and file upload processes, which may include the following activities: (1) understanding how the contractor's scheduling system operates; (2) training operators at the site; (3) requesting changes to the site's cyber security (firewall & network) procedures; (4) writing the Interconnection Security Agreement (5) testing file upload procedures; and (6) assisting the site operator to understand error-validation messages and re-submission procedures.

- **Project Upload File:** The formatted project upload file will contain one or more of the following data objects from the contractor's scheduling system: WBS, OBS, ABS (activity schedule), variance analysis reports, risk logs, safety logs, and the performance measurement baseline. See the Diagram of Data to be Collected by PARS II in this section for additional examples of data.

- **Quality Assurance**: The Contractor Project Performance module will utilize a quality assurance process to make sure that project upload files have been error-checked and corrected before being sent to the PARS II server Headquarters. The specific details of this quality process must be worked out but it is expected that the site contractor will be responsible for the initial level of error-checking and error-correcting, making sure that all "fatal" errors have been corrected before uploading the file to Headquarters. It is expected that the OECM Analyst will perform the second round of error checking, once the upload file has been received by PARS II at Headquarters. For this process, the OECM Analyst will review the error-log generated by the PARS II server when the upload file was received. The OECM Analyst will then make a decision to reject or accept the upload file, based on his/her analysis of the log file. Acceptance of the upload file by the OECM Analyst will cause PARS II to store the approved upload file into the PARS II database,

- **Review, Approval and Data Storage**: The Project Upload File can be uploaded to the PARS II server one or more times during the monthly reporting window. Each new submission of the upload file will overwrite the previous submission. After receiving the upload file, PARS II will send an electronic receipt to the contractor, confirming that it has received the upload file. PARS II will validate each upload file and will generate an electronic error log. PARS II will also notify the OECM Analyst, via email, when the upload file is ready for review. The OECM Analyst must review the error log and make a determination to accept of reject the upload file. If rejected, PARS II will send an email to the contractor and request that the recently submitted upload file be corrected and resubmitted. If the upload file is accepted by the OECM Analyst, then PARS II will store the contents of the upload file into the PARS II Production Database. Data from the project upload file will be integrated with corresponding oversight and assessment data from the same project.

- **Sending the Upload File:** Contractors will utilize DOENet or the Internet to send upload files from the contractor site to Headquarters. Some reconfiguration of site and Headquarters

network/firewall procedures may be required (a time consuming procedure)

- **Performance Measurement Baseline (PMB)**: The contractor's Performance Management Baseline data will be extracted from the contractor's scheduling or costing system and will be uploaded via the project upload file. The PMB will be placed under configuration management control in PARS II and will be available for viewing, reporting, analysis and comparison reporting with other PMBs.

- **Reports from the Contractor Project Performance Module** – will consist of CPR Format 1-5 standard reports and a customized Dashboard that will permit the analyst to drill down through the WBS, OBS and Schedule. All authorized groups within PARS II (e.g., Program Office, OECM, FPD, Contractor) will be able to view and run these reports, using Dekker's PMIS iPortfolio web-based software

- **Utility Software -** such as Dekker PMIS, installed on a DOE computer at the site, will be made available to contractors to assist them in the process of generating and sending project upload files.

2. DOE Oversight and Assessment Module

PARS II will collect summary-level data (i.e., oversight and assessment data) for each project, as is currently done with the PARS 1 application. The data to be collected by PARS II will be sourced from come assessments of the contractor's data plus information provided by DOE such as funding, contingency values, CD approval status, etc.

The majority of the oversight and assessment data will be entered (hand-keyed) into the workstation by the Federal Project Director. The OECM Analyst and Program Office Analyst at Headquarters will also enter summary-level data into PARS II, such as the "OECM Overall Monthly Assessment". Examples of summary-level data include: monthly project assessments, estimates/ranges for completion and contractor certification status. See the Diagram of Data to be Collected by PARS II in this section for additional examples of data to be collected.

The Oversight and Assessment software module will be based on Dekker PMIS software and will utilize a graphic user interface, connected to the Internet, to collect, validate and send summary-level project data to the PARS II server at Headquarters. Other operational aspects and features of this module are listed below.

- **Schedule for Collecting Data**: Information collected by this module will entered at project startup, at month-end, annually, and at the completion of milestones, critical decisions, project close-out and other events. This schedule appears in a separate document titled: "Proposed List of Data Elements for PARS II, November 2008".

- **Data Entry Workflow** – software processes within PARS II will require each project to follow a prescribed path and to implement specific business rules associated with the Department's Critical Decision Milestones, as described in DOE Order 413.3A. For example, data for a project being entered into the Oversight and Assessment module will be checked to see if the information being entered complies with the prescribed Critical Decision workflow steps (e.g., CD-0 to CD-1 to CD-2 to CD-3 to CD-4 to Project Closeout). Workflow

tailoring (e.g., CD-2A, CD-2B, CD-2C) will be allowed for some projects.

- **Data Review & Approval Process:** a quality assurance process will also be put in place for summary-level data, to make sure that data entered has been validated and corrected, before being sending it to the next level. The details of this process must be worked out with OECM. It is expected that the FPD will enter and validate his/her own data and that the Program Office or OECM analyst will validate the FPD's data.

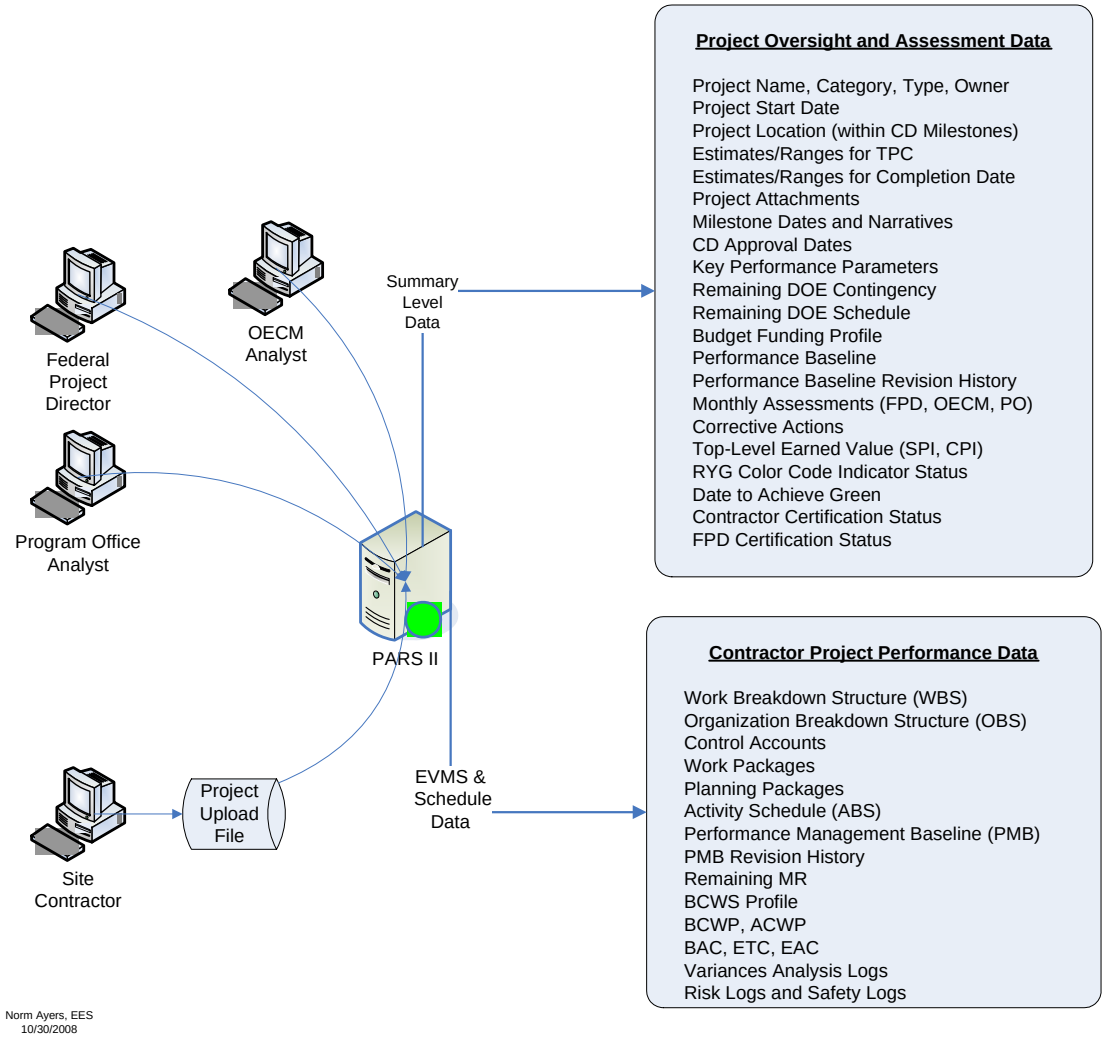
- **Performance Baseline**: Each project will have its own managed performance baseline, containing information such as the BCWS Profile, KPP's, project descriptive data, project performance metrics, project baseline number, and other data elements. PARS will support re-baselining and will provide a revision history data in each performance baseline.

- **Reports for Summary-Level Data:** will include standard, custom, ad-hoc and dashboards and are listed in the Oversight and Assessment Reports Section of this document.

8.1.3.2 Diagram of Data to be Collected by PARS II

This diagram provides examples of "Oversight and Assessment" and "Contractor Project Performance" data elements. Oversight and Assessment data is entered by the FPD, OECM Analyst and Program Office Analyst. Contractor Project Performance data elements are sourced from the contractor's project upload file.

OVERVIEW OF PARS II SOURCES OF DATA AND MAJOR DATA ELEMENTS



8.1.3.3 Oversight and Assessment Reports

All reports generated by PARS II will be available to authorized personnel via standard web browser software. The following reports will be made available to users with access to data generated by the Oversight and Assessment Module.

Standard Reports

PARS II will provide the following set of standard reports:

- Monthly Report for the Deputy Secretary
- Quarterly Report for the Deputy Secretary
- List of Projects by Projects by Site Name
- List of Projects by Projects by Managing Office
- List of Projects by Project by Status
- Summary Report for One Project
- Detailed Report for One Project

- Red-Yellow Project Status for Month
- Project Summary by Program
- Trend of Capital Asset Projects
- Trend of EM Cleanup Programs
- FPD Certification by Program
- EVMS Certification by Program
- EVMS Certification by Site
- Changes From Last Report
- Projects with CD-2 (Capital Asset Projects)
- Projects without CD-2 (Capital Asset Projects)
- Projects with CD-2 (EM Clean-Up Programs)
- Projects without CD-2 (EM Clean-Up Programs)

Ad-Hoc Reports

Below is an example of an ad-hoc report to be used in PARS II, called the "Summary Statistics Report". This report shows a portfolio of projects, for one program office, for a pre-selected period of time (monthly, quarterly, yearly) and lists the data shown in the figure below.

Summary Statistics for Program Office Projects								
Project Reporting Summary				Earned Value Summary Data				
Org.	AE	Total Projects > $20M Reporting Earned Value Data	Total Projects < $20M Reporting Earned Value Data	Green	Yellow	Red	% of Projects w/Green Status	**% of $$ Value w/Green Status**
NA-11	HQ	4	1	5	0	0	100%	**100%**
	Site	6	0	6	0	0	100%	**100%**
NA-12	HQ	4	1	5	0	0	100%	**100%**
	Site	6	0	6	0	0	100%	**100%**
NA-16	HQ	4	1	5	0	0	100%	**100%**
	Site	6	0	6	0	0	100%	**100%**
NA-50	HQ	4	1	5	0	0	100%	**100%**
	Site	6	0	6	0	0	100%	**100%**
NA-233	HQ	4	1	5	0	0	100%	**100%**
	Site	6	0	6	0	0	100%	**100%**

Custom Reports

PARS II will provide the following types of "custom reports".

- Dashboards
- Variance Analysis

- Contractor Project Performance Reports sections of this document.

8.1.3.4 Contractor Project Performance – Reports

The contractor project performance module will provide the following types of reports.

- Contract Performance Reports (CPR)
  - Format 1 – WBS
  - Format 2 – Organizational Categories
  - Format 3 – Baseline
  - Format 4 – Staffing
  - Format 5 – Explanation and Problem Analysis

- Dashboard – permitting drilldown into the WBS/OBS and Schedule

8.1.3.5 Training and Documentation

- Training will be provided to contractors at selected sites by members of the PARS II project team. Contractor project support personnel will be trained in how to use Dekker software and how to configure their EVM data using Dekker software tools.
- OECM Analysts and Program Office Analysts will be trained to use Dekker software to accomplish the following tasks: to review the project upload file, to approve/reject the project upload file, to generate reports, to enter data on screens, to run reports.
- A User Guide for PARS II will be developed and will contain dedicated sections for each user role.

8.1.3.6 Operation and Support Services

- Users of the PARS II system will be able to obtain help for PARS business and technical questions by calling the PARS II Help Desk number (to be accessed by dialing 3-2500).
- All 3-2500 calls will be re-routed to the EES PARS II Hotline, which will be staffed by a PARS subject matter expert
- The PARS Hotline will be available during normal business hours

8.1.3.7 Cyber Security Issues and Accreditation

- Cyber security certification and accreditation processes will start in November 2008
- It is expected that PARS II will receive an Authority to Operate from the OCIO, after complying with C&A processes
- PARS II will be able to run as a production system, once certification and accreditation have been received.
- At the present time, the C&A process is taking from six to nine months to complete, based on backlog and available resources
- It has been reported, but not confirmed, that the information contained in the PARS database has been classified as “for official use only”. This classification may have an impact on the information security profile for PARS II.
- PARS must provide security sufficient to restrict users from viewing and updating

unauthorized information. This means that data entry users within a Program Office will have the ability to add or update data that is owned by that specific Program Office. However, privileged users will have the ability to view data owned by all Program Offices.

8.2 System Interfaces

- At the present time, there are no external interfaces planned for PARS II

8.3 Planned Capabilities

The following new features and capabilities may be added to PARS II in the future:

- Possible integration of PARS II with a document management system, such as Microsoft SharePoint or Documentum, for the purpose of archiving, retrieving and sharing important documents.
- Enhancement of capabilities, based on feedback from beta test implementation.
- Additional reports
- Possible interfaces with other systems (Stars)
- OMB 300 Reporting

9 Business Rules

Business rules will play a key role in the design of PARS II. Policy-related business rules come from DOE Orders, Manuals and Best Practice Guide. Business rules also come from industry standards such as Earned Value Management ANSI Standard 748. Finally, business rules can come from other sources such as subject matter experts and clients.

The core DOE policies and industry standards that the PARS II system will support and enforce are listed below.

- United States Department of Energy Order 413.3A, July 28, 2006
- United States Department of Energy Manual 413.3-1, March 31, 2003
- United States Department of Energy Guide 413.3-10, "Earned Value Management System", May 6, 2008
- United States Department of Energy, Office of Management, Budget and Evaluation, "Project Management Best Practices - Work Breakdown Structure", June 2003
- United States Department of Energy, Office of Management, Budget and Evaluation, "Project Management Best Practices – Critical Decision Packages", June 2003
- United States Department of Energy, Office of Management, Budget and Evaluation, "Project Management Best Practices – Performance Baseline Development and Validation", June 2003
- American National Standards Institute/Electronic Industries Alliance (ANSI/EIA)-748, Earned Value Management System.

The documents provide the business rules that DOE and its contractors must follow for planning, executing and controlling projects. Specific business rules that the PARS II system will implement are discussed in this section.

The business rules for the PARS II system are organized by module with business rules that affect both components presented at the end. The business rules will be updated as a result of reviews and discussion of the Concept of Operations document and of beta testing PARS II at two EM sites.

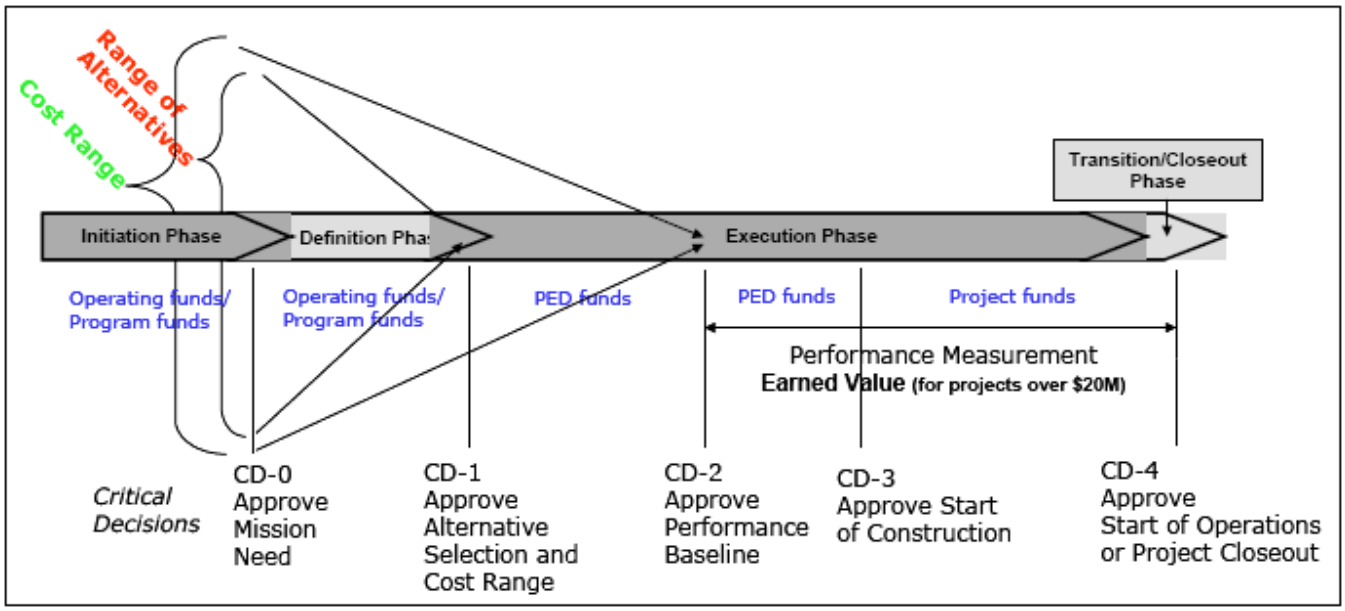
9.1 Business Rules for Oversight and Assessment Module

The business rules listed in this section will be implemented in the Oversight and Assessment module.

9.1.1 Rules for Implementing Critical Decisions

The DOE Acquisition Management System establishes a management process to translate user needs and technological opportunities into reliable and sustainable facilities, systems, and assets that provide the required mission capability. The system is organized into phases and "Critical Decisions." The phases represent a logical maturing of broadly stated mission needs into well-defined technical, system, safety, and quality requirements; and ultimately into operationally effective, suitable, and affordable facilities, systems, and other end products. The figure below illustrates the overall Acquisition Management System.

Critical Decisions are key milestones or activities for the project, sub-project, or segment and each signal the beginning of the next approved project phase. The PARS II Oversight and Assessment module will implement Critical Decision milestones as an internal workflow process, wherein each project will be required to move along CD-0, CD-1, CD-2, CD-3 and CD-4 process steps and the module will capture the required information at each step. A diagram of Critical Decision Phases and required actions appears below.



The table below describes the activities and data that must be captured by the PARS II Oversight and Assessment module, to be in compliance with "Table 2 – Critical Decision Requirements" of DOE Order 413.3A. The table below summarizes the requirements from the DOE Order and serves as a starting point for defining the data to be collected. Additional data must also be collected via the Oversight and Assessment module, such as the data required by the DOE EVMS Gold Card and other data element specified by DOE (e.g., overall monthly assessments, expected date to achieve green, color-coded performance indicators) . These additional data items will be identified in the remaining business rules. The entire set of data to be collected by the Oversight and Assessment module will be contained in a separate document titled "Proposed Data Elements for PARS II (to be published November 3, 2008).

[Please note that the roles assigned to the activities below were sourced from the DOE Order 413.3A DOE Order 413.3A, "Critical Decision Requirements - Table 2", Pages 11-17 and may not be in agreement with the most recent assignment of roles as defined by OECM]

Critical Decision Activities – from DOE Order 413.3A, Table 2, Pages 11-17

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
1.	CD0	Perform Pre-conceptual Planning activities that focus on the Program's strategic goals and objectives, safety planning, and Design		**Enter or update the following in PARS II:** - Collect the Pre-conceptual Planning Documents

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
2.	CD0	Prepare a Mission Need Statement that documents a mission requirement that cannot be met through other than material means. Additionally, the Mission Need Statement will document the potential hazards and their safety, security, and risk implications	Program Secretarial Officer (with recommendation from Program Analysis and Evaluation for projects with a Total Project Cost or Environmental Management Total Project Cost > $100M)	**Enter or update the following in PARS II:** - Collect the Mission Need Statement (attachment)
3.	CD0	Prepare a Tailoring Strategy, if required, that describes the project's approach for appropriately adapting Critical Decision requirements based on the project's risk and complexity. The Tailoring Strategy may be included in the Project Execution Plan at later Critical Decisions.	Secretarial Acquisition Executive or Acquisition Executive	**Enter or update the following in PARS II:** - Collect the Tailoring Strategy Document
4.	CD0	Perform a Mission Validation Independent Project Review on all Major System Projects.	Program Secretarial Officer	**Enter or update the following in PARS II:** - Collect the Mission Validation Independent Project Review Documents
5.	CD0	Prepare a Program Requirements Document (for National Nuclear Security Administration only) that defines the ultimate goals which the project must satisfy.		**Enter or update the following in PARS II:** - Collect the Program Requirements Document, for NNSA projects only
6.	CD0	Evaluate projects for Information Technology elements within the Departmental Enterprise Architecture framework.	Chief Information Officer for Departmental Information Technology capital assets with Development Modernization Enhancements funding > or equal to $5M in Current Year or Budget Year, or Development Modernization Enhancements funding > or equal to $20M.	
7.	CD0	Approval of Critical Decision 0 initiates the requirement for project status reporting		**Enter or update the following in PARS II:** - CD approval date - CD approving authority

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
		The Federal Project Director (FPD) or Program Manager (PM) is assigned and becomes responsible for entering initial project information at CD-0.		- Project ID - Project Name - Project Acronym - Project Description - Project Objectives - Project Type - Project Type - Project Category - Managing Program Office - TPC at CD-0 Low - TPC at CD-0 High
8.	CD0	The FPD verifies the project status is current noting accomplishments towards key milestones.		**Enter or update the following in PARS II:** - Verify project status data elements are current. - Update Milestone Actual Date
9.	CD1	Prepare a Conceptual Design Report, which is an integrated systems engineering effort that results in a clear and concise definition of the project.		**Enter or update the following in PARS II:** - Collect the Conceptual Design Report
10.	CD1	Prepare an Acquisition Strategy that describes the high-level business and technical management approach designed to achieve project objectives within specified resource constraints.	Program Secretarial Officer (with recommendation from the Office of Engineering and Construction Management for Major System Projects).	**Enter or update the following in PARS II:** - Collect the Acquisition Strategy
11.	CD1	Comply with the One-for-One Replacement legislation (excess space/offset requirement) as mandated in House Report 109-86.		
12.	CD1	Prepare a preliminary Project Execution Plan, including a Risk Management Plan and Risk Assessment that establishes the initial policy and procedures to be followed to manage and control project execution.	Secretarial Acquisition Executive or Acquisition Executive	**Enter or update the following in PARS II:** - Collect the Preliminary Project Execution Plan - Risk Assessment
13.	CD1	Approve appointment of the Federal Project Director.	Secretarial Acquisition Executive or Acquisition Executive (with Program Manager recommendation)	**Enter or update the following in PARS II:** - The name of the approved Federal Project Director.
14.	CD1	Establish and charter an Integrated Project Team. An	Secretarial Acquisition Executive or	

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
		Integrated Project Team, led by the Federal Project Director, is a multidisciplinary team, which includes safety expertise. The Charter includes membership, roles and responsibilities, decision making authority and operating guidance. The Charter may be included in the Project Execution Plan.	Acquisition Executive	
15.	CD1	Conduct a Design Review of the conceptual design. Design Reviews are performed to determine if a product (drawings, analyses, or specifications) is correct and will perform its intended functions and meet requirements. As part of the Design Review, for high-risk, high-hazard, and Hazard Category 1, 2, and 3 nuclear facilities, conduct a Technical Independent Project Review, the focus of which is to determine that the safety documentation is sufficiently conservative and bounding to be relied upon for the next phase of the project. For Information Technology projects, the design review is a review of the preliminary System Description Document.		
16.	CD1	Prepare a Project Data Sheet for Line Item Projects to request Project Engineering and Design funds for preliminary and final Design.		**Enter or update the following in PARS II:** - Collect the Project Data Sheet
17.	CD1	Approve Long-Lead Procurements, if necessary.	Secretarial Acquisition Executive or Acquisition Executive	Approve Long-Lead Procurements, if necessary.
18.	CD1	Implement Integrated Safety Management into management and work process planning at all levels per DOE P 226.1.		
19.	CD1	Prepare environmental documents including National Environmental Policy Act strategy and analyses, and permit applications.		**Enter or update the following in PARS II:** - Collect environmental documents and permit applications.
20.	CD1	Document High Performance Sustainable Building		**Enter or update the following in PARS II:**

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
		considerations also referred to as “sustainable environmental stewardship” per DOE O 450.1, chg 2, is documented in the Conceptual Design Report and Acquisition Strategy, as appropriate.		- Collect the High Performance Sustainable Building Considerations documents
21.	CD1	Prepare a Preliminary Security Vulnerability Assessment Report as defined in DOE M 470.4-1.		**Enter or update the following in PARS II:** - Collect the Preliminary Security Vulnerability Assessment R
22.	CD1	Prepare an Initial Cyber Security Plan for Information Technology projects in accordance with DOE O 205.1.		**Enter or update the following in PARS II:** - Collect the Initial Cyber Security Plan for Information Technology Projects
23.	CD1	Prepare a Conceptual Safety Design Report for Hazard Category 1, 2, and 3 nuclear facilities.		**Enter or update the following in PARS II:** - Collect the Conceptual Safety Design Report for Hazard Category 1, 2, and 3 nuclear facilities.
24.	CD1	Prepare a Preliminary Hazard Analysis Report for facilities that are below Hazard Category 3 threshold as defined in 10 CFR 830, Subpart B and obtain DOE approval (field level).		**Enter or update the following in PARS II:** - Collect the Preliminary Hazard Analysis Report for facilities that are below Hazard Category 3 threshold as defined in 10 CFR 830, Subpart B and obtain DOE approval (field level).
25.	CD1	Prepare a Preliminary Safety Validation Report on the DOE review of the Conceptual Safety Design Report for Hazard Category 1, 2, and 3 nuclear facilities.		**Enter or update the following in PARS II:** - Collect the Preliminary Safety Validation Report on the DOE review of the Conceptual Safety Design Report for Hazard Category 1, 2, and 3 nuclear facilities.
26.	CD1	Determine that the Quality Assurance Program is acceptable and continues to apply. The Quality Assurance Program must fully address all applicable Quality Assurance.		
27.	CD1	After CD1 approval, the FPD is responsible for entering/verifying the CD-1 data.		**Enter or update the following in PARS II:** - CD approval date

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
				- CD approving authority - Verify CD-0 data is current. - Verify project status data is current. - Update Milestones - Top-level earned value data (optional) - Preliminary Performance Baseline (optional) - Preliminary Key Performance Parameters - Site Code and Description - Project Location - FPD Certification Status - FPD Cert Level - FPD Cert Date - Contractor EVMS Certification Status - Contractor EVMS Certification Date - TPC at CD-1 Low - TPC at CD-2 High - ECD - Proposed budget profiles based on the higher end of the approved cost range
28.	CD2	**Establish a Performance Baseline** to include Key Performance Parameters, total project cost, schedule and scope. The key project milestones and completion date shall be stated no less specific than month and year. The scope will be stated in quantity, size and other parameters that give shape and form to the project. The Performance Baseline may be included in the Project Execution Plan.	Secretarial Acquisition Executive approves the Performance Baselines for Major System Projects, Acquisition Executive for Non-Major System Projects. For performance baseline deviation approvals, see Section 5.i. Baseline Management.	**Enter or update the following in PARS II:** - Collect the Performance Baseline document (if not already included in the Project Execution Plan).
29.	CD2	**Update the Project Execution Plan** to incorporate changes resulting from the design effort in all areas including design considerations, performance baseline, risk analysis, project management, configuration management, and roles and responsibilities.	Secretarial Acquisition Executive or Acquisition Executive	**Enter or update the following in PARS II:** - Collect the revised Project Execution Plan.
30.	CD2	Projects having a Total Project Cost or Environmental Management Total Project Cost between $20M and	Secretarial Acquisition Executive/Acquisition Executive for Alternative	**Make sure top-level EVMS data is collected in PARS II after CD-2 approval**.

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
		$50M must have an **Earned Value Management System** that is self-certified by the contractor as ANSI/EIA-748-A-1998 compliant. Projects having a Total Project Cost or Environmental Management Total Project Cost greater than or equal to $50M require an ANSI/EIA-748-A-1998 compliant system certified by the Office of Engineering and Construction Management. For projects not required to utilize an Earned Value Management System (e.g., firm fixed-price contract projects), an alternative performance management system must be described in the Project Execution Plan.	Performance Management System	
31.	CD2	Perform a **Performance Baseline Validation External Independent Review** or a **Performance Baseline Validation Independent Project Review.** External Independent Reviews are conducted by the Office of Engineering and Construction Management to validate the Performance Baseline for projects with a Total Project Cost or Environmental Management Total Project Cost greater than or equal to $100M. Independent Project Reviews are conducted by the Project Management Support Office to validate the Performance Baseline for projects with a Total Project Cost or Environmental Management Total Project Cost less than $100 M.		**Enter or update the following in PARS II:** - Collect proof of a Performance Baseline Validation External or Internal Independent Review (see additional project qualifications in Column 1 of this row).
32.	CD2	Develop an Independent Cost Estimate or perform an Independent Cost Review for Major System Projects as part of the Performance Baseline Validation External Independent Review performed by the Office of Engineering and Construction Management. An Independent Cost Estimate should be		**Enter or update the following in PARS II:** - Collect the Independent Cost Estimate

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
		performed where complexity, risk, cost, or other factors create a significant cost exposure for the Department.		
33.	CD2	Determine that the Quality Assurance Program is acceptable and continues to apply. The Quality Assurance Program must fully address all applicable Quality Assurance Criteria as defined in 10 CFR 830 Subpart A and DOE O 414.1C.		
34.	CD2	Prepare a Preliminary Design. This stage of the design is complete when it provides sufficient information to support development of the Performance Baseline.		**Enter or update the following in PARS II:** - Collect the Preliminary Design. Document
35.	CD2	Update the Project Data Sheet, if applicable.		**Enter or update the following in PARS II:** - Collect the revised Project Data Sheet
36.	CD2	Conduct a Design Review of the Preliminary Design. Design Reviews are performed to determine if a product (drawings, analyses, or specifications) is correct and will perform its intended functions and meet requirements. For nuclear facilities, design reviews should include a focus on safety and security systems. For Information Technology projects, the design review is a review of the updated System Description Document.		**Enter or update the following in PARS II:** - Collect the document that proves that the “Design Review of the Preliminary Design” was performed.
37.	CD2	Prepare a Preliminary Safety Design Report based on the Conceptual Safety Design Report for Hazard Category 1, 2, and 3 nuclear facilities.		**Enter or update the following in PARS II:** - Collect the Preliminary Safety Design Report.
38.	CD2	Prepare a Hazard Analysis Report by updating the Preliminary Hazard Analysis Report based on new hazards and design information and obtain DOE approval (field level).		**Enter or update the following in PARS II:** - Collect the Hazard Analysis Report.

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
39.	CD2	Update the Preliminary Security Vulnerability Assessment Report.		**Enter or update the following in PARS II:** - Collect the Preliminary Security Vulnerability Assessment Report.
40.	CD2	Update the Initial Cyber Security Plan for Information Technology projects.		
41.	CD2	Prepare a Preliminary Safety Validation Report based on DOE review of the Preliminary Safety Design Report for Hazard Category 1, 2, and 3 nuclear facilities.		**Enter or update the following in PARS II:** - Collect the Preliminary Safety Validation Report.
42.	CD2	Incorporate Preliminary Sustainable Environmental Stewardship- High Performance Sustainable Building provisions into the preliminary design and design review.		
43.	CD2	Complete (or obtain approval of) final National Environmental Policy Act documentation, which must be completed prior to the start of final design.		**Enter or update the following in PARS II:** - Collect the National Environmental Policy Act documentation.
44.	CD2	Critical Decision 2 – Approve Performance Baseline: the Acquisition Executive (AE) approves the project's performance baseline and authorizes the Program Office to request construction funding through the budget process.		**Enter or update the following in PARS II:** - CD approval date - CD approving authority - Verify CD-0 data is current. - Verify CD-1 data is current. - Verify project status data is current. - Update Milestones - Update final KPPs - Enter the Performance Baseline (PB) - BCWS profile for each month in life cycle of project - BCWP and ACWP for the reporting period

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
				- Other EV data - Start Monthly Performance Reporting for as long as project status is "Active" -
45.	CD3	Complete and review Final Design or determine that the design is sufficiently mature to start procurement or construction. For Information Technology projects, the Final Design review is a review of the final System Description Document.		
46.	CD3	Update all CD-2 project documentation and required approvals to reflect any changes resulting from Final Design, including the Project Execution Plan, Performance Baseline, Project Data Sheet, etc.		**Enter or update the following in PARS II:** - Collect revised Project Execution Plan, Performance Baseline, Project Data Sheet
47.	CD3	Perform an External Independent Review for Construction or Execution Readiness. An External Independent Review is performed by the Office of Engineering and Construction Management on all Major System Projects to verify execution readiness. A similar Independent Project Review must be performed by the appropriate Program Secretarial Office for Non-Major System Projects unless justification is provided and a waiver is granted by the Acquisition Executive.		**Enter or update the following in PARS II:** - Provide written proof of the External or Internal "Independent Review for Construction or Execution Readiness".
48.	CD3	Prepare the Preliminary Documented Safety Analysis Report based on the Preliminary Safety Design Report for Hazard Category 1, 2, and 3 nuclear facilities.		**Enter or update the following in PARS II:** - Collect the Preliminary Documented Safety Analysis Report.
49.	CD3	Update the Hazard Analysis Report and obtain DOE approval (field level).		**Enter or update the following in PARS II:** - Collect the revised Hazard Analysis Report.
50.	CD3	Update the Preliminary Security Vulnerability Assessment		**Enter or update the following in PARS II:**

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
		Report.		- Collect the Preliminary Security Vulnerability Assessment Report.
51.	CD3	Update the Cyber Security Plan for Information Technology projects.		
52.	CD3	Prepare a Safety Evaluation Report based on review of the Preliminary Documented Safety Analysis for Hazard Category 1, 2, and 3 nuclear facilities.		**Enter or update the following in PARS II:** - Collect the Safety Evaluation Report.
53.	CD3	Prepare a Construction Project Safety and Health Plan** and obtain DOE approval (field level).		
54.	CD3	Incorporate Final Sustainable Environmental Stewardship-High Performance Sustainable Building provisions into the Final Design and the External Independent Review.		
55.	CD3	Update the Quality Assurance Program for construction, field design changes, and procurement activities		
56.	CD3	**Critical Decision 3 – Approve Start of Construction:** •		**Enter or update the following in PARS II:** - CD approval date - CD approving authority - Verify CD-0 data is current. - Verify CD-1 data is current. - Verify CD-2 data is current. - Verify project status data is current - Update Milestones - EV data - Verify BCWS monthly through the project completion. - BCWP and ACWP each month. - Monthly Performance

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
				Reporting. - Verify the project status is current noting accomplishments towards key milestones - CD-3 approval memo which documents start of construction is maintained in PARS as an attachment. - If CD-3 is phased, the CD-3A approval document is attached also. - If CD-3 is phased, the start of construction is based on the earliest CD-3/3A approval.
57.	CD4	Verify Key Performance Parameters or Project Completion Criteria have been met and mission requirements achieved.		**Enter or update the following in PARS II:** - Verify Key Performance Parameters or Project Completion Criteria have been met and mission requirements achieved.
58.	CD4	Complete a Readiness Assessment or an Operational Readiness Review and resolve all pre-start findings including ensuring Operations and Maintenance Staff are properly trained and qualified to operate and maintain the equipment, systems, and facilities being turned over.		
59.	CD4	Issue a Checkout, Testing, and Commissioning Plan** that identifies subtasks, systems, and equipment. The Commissioning Plan ensures that the equipment, systems, and facilities including High Performance Sustainable Building systems, perform as designed and are optimized for greatest energy efficiency, resource conservation, and occupant satisfaction. The Commissioning Plan includes checkout and testing criteria required for initial operations.		**Enter or update the following in PARS II:** - Collect the Checkout, Testing and Commissioning Plan

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
60.	CD4	Issue a Project Transition to Operations Plan** that clearly defines the basis for attaining initial operating capability, full operating capability, or project closeout, as applicable. The plan includes documentation, training, interfaces, and draft schedules.		**Enter or update the following in PARS II:** - Collect the Project Transition to Operations Plan.
61.	CD4	Issue an updated Quality Assurance Plan to address testing, identified deficiencies, and startup, transition, and operation activities.		**Enter or update the following in PARS II:** - Collect the revised Quality Assurance Plan.
62.	CD4	Revise the environmental management system to ensure that it incorporates new environmental aspects related to turnover and operations.		
63.	CD4	Prepare the Documented Safety Analysis Report with Technical Safety Requirements for Hazard Category 1, 2, and 3 nuclear facilities.		**Enter or update the following in PARS II:** - Collect the Safety Analysis Report
64.	CD4	Update the Construction Project Safety and Health Plan**		**Enter or update the following in PARS II:** - Collect the Construction Project Safety and Health Plan
65.	CD4	Finalize the Hazard Analysis Report and obtain DOE approval (field level).		**Enter or update the following in PARS II:** - Collect the Hazard Analysis Report.
66.	CD4	Finalize the Security Vulnerability Assessment Report.		**Enter or update the following in PARS II:** - Collect the Security Vulnerability Assessment Report.
67.	CD4	Finalize the Cyber Security Plan for Information Technology projects and complete the Certification and Accreditation, as required.		**Enter or update the following in PARS II:** - Collect the Cyber Security Plan for Information Technology projects.
68.	CD4	Prepare a Safety Evaluation Report based on a review of the Preliminary Documented Safety Analysis for Category 1, 2, and 3 nuclear facilities.		**Enter or update the following in PARS II:** - Collect the Safety Evaluation Report.
69.	CD4	Perform final administrative and financial closeout and prepare a		**Enter or update the following in PARS II:**

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
		Final Project Closeout Report once all project costs are incurred and invoiced and all contracts are closed. The report includes final cost details as required (including claims and claims settlement strategy where appropriate).		- Collect the Final Project Closeout Report.
70.	CD4	Prepare a Lessons Learned Report and submit to OECM for broader sharing among the DOE project management community.		**Enter or update the following in PARS II:** - Collect the Lessons Learned Report.
71.	CD4	Complete project required Operational Documentation.		**Enter or update the following in PARS II:** - Collect the Operational Documentation.
72.	CD4	Conduct Post Implementation Review for Information Technology projects and document that the project has attained the desired results and met the Key Performance Parameters in accordance with the Capital Programming Guide, Supplement to Part 7 of the Office of Management and Budget's Circular A-11.		**Enter or update the following in PARS II:** - Collect the report that document that shows the project has attained the desired results and met the Key Performance Parameters.
73.	CD4	**Critical Decision 4 – Approve Start of Operations or Project Close-out:** responsibility for the project transitions to Operations or D&D, depending on the type of project.		- CD approval date - CD approving authority - Verify CD-0 data is current. - Verify CD-1 data is current. - Verify CD-2 data is current. - Verify CD-3 data is current. - Verify project status data is current. - Verify the Actual Date for the CD-4 Milestone and the schedule and scope parameters. - End of Monthly Performance Reporting - Verify that project status is "Complete"

	CD#	DOE Requirement for Critical Decision	DOE Approval Authority	Proposed Activities For PARS II
				- The CD-4 approval memo documenting project completion, final project cost, and scope/KPP completion is maintained in PARS as an attachment. - If CD-4 is phased, the last CD-4 approval memo is attached also. - If CD-4 is phased, the project completion date is based on the latest memo date. - If the CD-4 approval memo does not document final project cost or scope/KPP completion, appropriate project documentation that does so is attached.
74.	FCO	**Final Financial Closeout**		**Enter or update the following in PARS II:** - The FPD is responsible for entering/verifying the Actual Project Cost (APC) at completion

9.1.2 Performance Baseline (PB) Management

	Name	Description	Source
75	Performance Baseline Deadline	Every project must have a performance baseline (by no later than CD-2). The performance baseline (PB that includes the contractor's PMB) must cover the entire project life cycle, i.e., through CD-4 or through the near-term baseline for EM cleanup projects.	DOE M 413.3-1
76	Performance Baseline (PB)	The PB baselines the project key Performance Parameters, schedule, and cost.	DOE M 413.3-1
77	Key Performance (KPPs)	KPPs are baselined at CD2 and should not be changed. At CD-4 the KPPs should equal the KPPs at CD-	OECM 10/23/2008

	Name	Description	Source
		2.	
78	Performance Baseline Changes	The Performance Baseline must be managed by a change control process. Only OECM can enter changes to the Performance Baseline. Changes to the Performance Baseline require attachment of the BCP approval memo that established a revised TPC, CD-4 date, or scope/KPPs. If the BCP is the result of a directed change, any supporting documentation that supports that position is also attached.	OECM 10/23/2008
79	Performance Baseline Versions	PARS II keeps each version of the PB (versions are identified by status date).	OECM 10/23/2008
80	Performance Baseline Comparison	PARS II will display a minimum of three baseline versions online for review.	OECM 10/23/2008
81	Reporting Against Multiple PB Versions	Actuals can be reported and tracked against prior versions of a baseline.	OECM 10/23/2008

9.1.3 Funding/Budget

	Name	**Description**	**Source**
82	Funding Profile	PARS II will maintain a funding profile for each project. The funding profile will maintain the OMB request, appropriation, obligations, and costs for each fiscal year. The profile will maintain the five-year budget cycle.	ART

9.1.4 Contingencies

	Name	Description	Source
83	Contingency Log	PARS II shall maintain the history of the Federal allocation and consumption of contingency.	OECM 10/23/2008
84	Contingency Types	PARS II will include funding and schedule contingencies.	OECM 10/23/2008
85	Contingency Information	The Contingency Log identifies the amount of contingencies allocated to a WBS or OBS element and the date of the transaction. A narrative and/or	OECM 10/23/2008

	Name	Description	Source
		document can be used to provide further information.	

9.1.5 Risk Management

	Name	Description	Source
86	Risk Management Log	PARS II shall maintain risk logs for the project for Federal risk management.	OECM 10/23/2008
87	Risk Management Information	The Risk Management Log identifies the risk and its attributes, its status, and the WBS or OBS to which it is tied. Project-level risks are tied only to the project not to the WBS/OBS.	OECM 10/23/2008
88	Risk Types	PARS II needs to provide multiple sets of risk types, as DOE programs use different risk types.	OECM 10/23/2008

9.1.6 Assessments/Status Reporting

	Name	**Description**	**Source**
89	Project Assessments	PARS II will enable the FPD, OECM Analysts, and Program Analysts to write assessments/status reports. The program can view the FPD's assessment. OECM can view the FPD's and the program's assessment.	John Makepeace <get date>
90	Assessment Information	The assessor can rate the status of scope, schedule, cost and funding as red, yellow or green. In addition to a narrative, a document can be attached to provide further information.	OECM 10/23/2008
91	Assessment History	Assessments are maintained historically by status date.	OECM 10/23/2008

9.1.7 Contractor EVMS Certification

	Name	**Description**	**Source**
92	Project TPC Threshold for EVMS Certification	(1) Project with TPC between $20M and $50M requires self-certification by the contractor (contractor can be certified by OECM instead of self-certifying) (2) Project with TPC greater than or equal to $50M requires certification by OECM	DOE O 413.3A

		(3) New contractors who have replaced contractors with certified EVMS or who require certification.	
93	Project Deadline for EVMS Utilization	Contractor employs an ANSI/EIA-748 compliant EVMS by CD-2 for project with TPC greater than or equal to $20M. EVMS data are entered after CD-2.	DOE O 413.3A
94	Project Deadline for EVMS Certification	Contractor's EVMS is certified as soon as possible, but no later than CD-3, for project with TPC greater than or equal to $20M.	DOE O 413.3A
95	EVMS Certification Requirement for CD-3 Approval	In most cases, EVMS certification is a condition for CD-3 approval for project with TPC greater than or equal to $20M.	DOE O 413.3A
96	EVMS Certification Maintenance	OECM maintains the EVMS certification status for each project's contractors (a project may have more than one PMB).	OECM 10/23/2008

9.1.8 Project Performance Parameters

	Name	Description	Source
97	CPI Cum Indicator Criteria	If CPI Cum value > 0.90 and < 1.15, CPI Cum Indicator is green If CPI Cum value > 0.85 and < 0.89 or > 1.16 and < 1.25, CPI Cum Indicator is yellow If CPI Cum value < 0.84 or >1.26, CPI Cum Indicator is red	ART
98	SPI Cum Indicator Criteria	If CPI Cum value > 0.90 and < 1.15, CPI Cum Indicator is green If CPI Cum value > 0.85 and < 0.89 or > 1.16 and < 1.25, CPI Cum Indicator is yellow If CPI Cum value < 0.84 or >1.26, CPI Cum Indicator is red	ART
99	Project Indicator	A color assigned to the red, yellow, green performance indicator that indicates the overall progress of the assessment.	ART

9.1.9 Portfolio Performance Metrics

	Name	Description	Source
100	Capital Asset Line Item Projects Portfolio Metrics	% projects completed at CD-4 within 10% of original approved cost baseline (CD-2) (or adjusted baseline cost)	Raines 9/10/2008 – O1

	Name	Description	Source
		% projects completed at CD-4 below currently approved TPC % projects completed at CD-4 with some contingency and/or management reserve remaining % of projects (cost reimbursable and greater than $20m) using certified EVM systems	CM3 O3
101	EM Cleanup Portfolio Metrics	% of projects achieving at least 80 percent of the defined near-term baseline end state scope (CD-2) with less than 25 percent cost variance from original approved baseline (unless impacted by a directed change) % of projects (cost reimbursable) post CD-3 using certified EVM systems	Raines 9/10/2008 O2 O3
102	DOE Portfolio Metrics	% of projects less than 5 years in duration from CD-3 to CD-4 completed within 12 months of the original CD3/CD4 duration % of projects greater than 5 years in duration from CD-3 to CD-4 completed within 20% of the original CD3/CD4 duration % of projects having certified FPDs no later than CD-1 % of projects having FPDs certified at the appropriate level assigned no later than CD-3	Raines 9/10/2008 CM7c CM7d CM2b CM2c

9.1.10 Contacts

	Name	Description	Source
103	Contacts and Locations	PARS II will maintain a log of information about Federal and contractor staff and locations, including Contractor Project Manager, Federal Project Director, Analysts, and Program Staff.	OECM 10/23/2008
104	Contact Information	The contact information will include: Name Address Phone Numbers	OECM 10/23/2008

	Name	Description	Source
		Email Addresses Specialized information, such as the FPD certification status, also will be maintained.	

9.2 Business Rules for Contractor Project Performance Module

The business rules in this section will be implemented in the Contractor Project Performance module.

9.2.1 Business Rules for Implementing ANSI/EIA Standard 748A

Information in the table below was sourced from the National Defense Industrial Association Program Management Systems Committee "Earned Value Management Systems Intent Guide" (for ANSI/EIA 748-A), November 2006 Edition.

The PARS II Contractor Project Performance module will operate at contractor sites where earned value management processes have been put in place and are practiced. Red-shaded text, listed in the table below, identifies the business processes that should be followed, as well as the data to be collected.

ANSI/EIA-748-A Guidelines

	ANSI/EIA-748-A Guidelines	Supporting Comments
105	**WBS** - Define the authorized work elements for the program. A Work Breakdown Structure (WBS) tailored for effective internal management control is commonly used in this process.	Only 1 WBS per project; **WBS contains all contract line items and end items; WBS extended at a minimum to control account level;** WBS elements should collectively provide a complete definition of work scope requirements; WBS may evolve as project requirements change; WBS dictionary may be used to reconcile the statement of work with the WBS structure.
106	**OBS** - Identify the program organizational breakdown structure including the major subcontractors responsible for accomplishing the authorized work and define the organizational elements in which work will be planned and controlled.	A OBS is used to facilitate the assignment of responsibility, accountability and authority for all tasks to be performed; an **OBS identifies the organization responsible for each segment of work**; all authorized work is assigned to organizational elements; organizational elements are work teams or other structures; major subcontractor work efforts are integrated into the program structure; the OBS integrates with the WBS.
107	**Integration of Major Elements -** Provide for the integration of the company's planning, scheduling, budgeting, work authorization and cost accumulation processes with each other and as appropriate the program work breakdown structure and the program	The integration of planning, scheduling, budgeting, work authorization and cost accumulation management processes provide the capability for establishing the **Performance Measurement Baseline (PMB)** identifying work progress and collecting actual costs facilitating

	ANSI/EIA-748-A Guidelines	Supporting Comments
	organizational structure.	management analysis and corrective actions; the work tasks are assigned to a WBS and OBS and are traceable to the planning and budgeting system and the cost collection system; examples include cross reference between statement of work and WBS … the master schedule and performance measurements tasks … the detail schedule an control account plans.
108	**Indirect Costs** - Identify the company organization or function responsible for controlling overhead (indirect costs).	It is important to have a documented process and organizations established specifically to manage and control indirect costs; **indirect costs** are for common activities that cannot be identified specifically with a particular project or activity and should typically be budgeted and controlled separately at the function or organizational manager level;
109	**Control Accounts: Integration of WBS & OBS** - Provide for integration of the program work breakdown structure and the program organizational breakdown structure in a manner that permits cost and schedule performance measurement by elements of either or both structures as needed.	The careful establishment of the **control account structure** ensures the proper level of management is established based on the complexity of the work and the capability of the organization; it also establishes the lowest level of performance necessary for program management; the integration of the WBS and OBS creates control accounts that facilitate schedule and cost performance management; the control account is the point where the WBS tasks and WBS responsibility intersect; **the control account** is defined as the point where a single organization or integrated product team has responsibility for work defined in a single WBS element; it is also the primary point for work authorization, work performance management and work performance measurement (i.e., where planned value is established, earned value assessed, and actual costs collected; each control account is assigned to a control account manager.
110	**Schedule Work Sequence & Dependencies -** Schedule the authorized work in a manner which describes the sequence of work and identifies significant task interdependencies required to meet the requirements of the program.	The scheduling process documents the resulting project schedule and provides a logical sequence of work leading to a milestone, event and or a decision point needed to ensure that the schedule supports the project objectives; there is a clear definition of what constitutes commencement and completion of each work package and planning package (or lower-level planning activity)**;** an integrated network schedule has distinct tasks that can be summarized up through the WBS and OBS to track progress and performance and the schedule to reflect all time-phased discrete work to be accomplished that is traceable to the WBS and the Statement of Work; significant interdependencies should be defined at a consistent lever of detail to support development

	ANSI/EIA-748-A Guidelines	Supporting Comments
		of critical path; discrete tasks or activities along the critical path have the least amount of float/slack; each key program milestone must be logically linked within the master schedule network; resource estimates from the budget plan are reasonable and resources are available to support the schedule; the schedule is reasonable as a baseline for achieving project requirements as demonstrated through schedule analysis techniques; the baseline schedule is the basis for measuring performance; the schedule provides current status and forecasts of completion dates for all discrete authorized work; the schedule network relationships support the development of a critical path for development projects.
111	**Identify Measurement Criteria -** Identify physical products, milestones, technical performance goals or other indicators that will be used to measure progress.	Objective indicators enable measurement of work accomplished thereby allowing its accurate comparison to planned work; interim milestones and lower-tier tasks serve as indicators of progress against which the control account manager monitors progress.
112	**Time-Phased Budget Baseline** – Establish and maintain a time-phased budget baseline at the control account level against which program performance can be measured	The time-phased performance measurement baseline (PMB) that represents the planned scope of all authorized work and schedule provides the program manager with a reference to assess project performance; it is controlled and reconciled to the target cost plus authorized un-priced work less management reserve; it represents cumulative time-phased budgeted cost for work scheduled; **the assignment of budgets to scheduled segments of work produces a plan against which actual performance can be compared … this is called the Performance Management Baseline (PMB)**; the Contract Budget Baseline (CBB) value used to establish the PMV is tied to the current value of the project including any authorized un-priced effort … included in the CBB value will be any budgets set aside for management reserve. **The PMB represents the time-phased scope, schedule and associated budget through the end of the contract.**
113	**Establish Budgets** - Establish budgets for authorized work with identification of significant cost elements (labor, materials, etc.) as needed for internal management and for control of subcontractors.	An essential part of project planning and establishing a performance measurement baseline is the establishment of **budgets** for all authorized work; identification of the budget cost elements documents the required resources and places work scope with the performing organization; **control accounts** identify the appropriate cost elements (labor, subcontractor, material and other direct costs); each control account should contain resources necessary to complete the assigned effort and budgets

	ANSI/EIA-748-A Guidelines	Supporting Comments
		reflecting these resources;
114	**Budgeting Work Packages -** To the extent it is practicable to identify the work in discrete work packages, establish budgets for this work in terms of dollars, hours, or other measurable units. Where the entire control account is not subdivided into work packages identify the far term effort in larger planning packages for budget and scheduling purposes.	**Budgets are established at the work package level identifying specific resource requirements in dollars, hours, or other measurable units** … providing the detail for effective execution of the baseline plan; where a control account cannot be planned in work package detail, the work scope, budget and schedule requirements are held in planning packages; **effort contained within a control account is distributed into either work packages or planning packages; work packages are single tasks assigned to a performing organization for completion and are natural subdivisions of control account effort resulting in a definable end product or event; planning packages are aggregates of future tasks and budgets; Control Account Plans represent the work assigned to one responsible organizational element on one program WBS element (this is the lowest level in structure at which comparison of actual costs to planned budgets and earned value is required). A Planning Package is the logical aggregation of work within a control account, normally the far-term effort, that can be identified and budgeted in early baseline planning but can not yet be defined into discrete apportioned or level of effort work packages.** **The integrity of the Performance Measurement Baseline requires that the budget of the control account equal the sum of its work package and planning budget accounts; all control accounts must contain a budget, schedule and scope of work and should realistically represent the work assigned and budgeted to the organizational units.**
115	**Control Account Budget** - Provide that the sum of all work package budgets plus planning package budgets within the control account equals the control account budget.	
116	**Level of Effort** - Identify and control level of effort activity by time-phased budgets established for this purpose. Only that effort which is un-measurable or for which measurement is impracticable may be classified as level of effort.	Objective measurement of **Level of Effort (LOE)** activity is impracticable and provides little, if any, visibility into actual performance; therefore its use must be minimized; level of effort work packages should be separately identified from discrete effort work packages and apportioned effort work packages; LOE budgets may be planned at either the control account level or at the same level as discrete or apportioned work packages.

	ANSI/EIA-748-A Guidelines	Supporting Comments
117	**Overhead Budgets** - Establish overhead budgets for each significant organizational component of the company for expenses which will become indirect costs. Reflect in the program budgets, at the appropriate level, the amounts in overhead pools that are planned to be allocated to the program as indirect costs.	
118	Identify management reserves and undistributed budget.	
119	Provide that the program target cost goal is reconciled with the sum of all internal program budgets and management reserves.	
120	Record direct costs in a manner consistent with the budgets in a formal system controlled by the general books of account.	
121	**Direct Costs and WBS** – When a work breakdown structure is used, 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.	
122	**Direct Costs and OBS** - Summarize direct costs from control accounts into the contractor's organizational elements without allocation of a single control account or two or more organizational elements.	
123	**Indirect Costs** - Record all indirect costs which will be allocated to the project.	
124	Identify unit costs, equivalent unit costs, or lot costs when needed.	
125	For EVMS, the material accounting system will provide for: 1. Accurate cost accumulation and assignment of costs to control accounts in a manner consistent with the budgets using recognized, acceptable costing techniques. 2. Cost performance measurement at a point in time most suitable for the category of material involved, but no earlier than the time of progress payments or actual receipt of material. 3. Full accountability of all materials purchased for the project including the residual inventory.	
126	**Analysis and Management Reports –** At least on a monthly basis, generate the following information at the control account and other levels as necessary for management control using actual cost data from, or reconcilable with,	

	ANSI/EIA-748-A Guidelines	Supporting Comments
	the accounting system. 1. Comparison of the amount of planned budget and the amount of budget earned for work accomplished. The comparison provides the schedule variance. 2. Comparison of the amount of budget earned and the actual (applied where appropriate) direct costs for the same work. This comparison provides the cost variance.	
127	Identify, at least monthly, the significant differences between both planned and actual schedule performance and planned and actual cost performance, and provide reasons for the variances in the detail needed by program management.	
128	Identify budgeted and applied (or actual) indirect costs at the level and frequency needed by management for effective control, along with the reasons for any significant variance.	
129	Summarize the data elements and associated variances through the program organization and/or work breakdown structure to support management needs and any customer reporting specified in the project.	
130	Implement managerial action taken as the result of earned value information	
131	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.	
132	Incorporate authorized changes in a timely manner, recording the effects of such changes in the budgets and schedules. In the directed effort prior to negotiation of a change, base such revisions on the amount estimated and budgeted to the program organizations.	
133	Reconcile current budgets to prior budgets in terms of authorized work and internal re-planning in the detail needed by management for effective control.	
134	Control retroactive changes to records pertaining to work performed that would change previously reported amounts for actual costs, earned value or budgets. Adjustments should	

	ANSI/EIA-748-A Guidelines	Supporting Comments
	be made only for correction of errors, routine accounting adjustments, effects of customer or management directed changes, or to improve the baseline integrity and accuracy of performance measurement data.	
135	Prevent revisions to the program budget except for authorized changes.	
136	Document changes to the performance measurement baseline.	

9.2.2 PMB Baseline Management

	Name	Description	Source
137	Project Measurement Baseline (PMB) Baseline Deadline	Every contractor must have a PMB baseline (by no later than CD-2) The PMB baseline must cover the entire project life cycle, i.e., through CD-4 or through the near-term baseline for EM cleanup projects	DOE M 413.3-1
138	PMB Baseline	The PMB baselines the contractor's scope, schedule, and cost.	DOE M 413.3-1
139	PMB Baseline - Scope	The scope baseline contains the Key Performance Parameters for the project.	DOE M 413.3-1
140	PMB Baseline – Schedule	The schedule baseline contains schedule and relationship information on milestones, interim milestones, summary activities, and activities.	ANSI 748-B
141	PMB Baseline – EV	The EV baselines contains ANSI-748 and Time-Phased EVM information for WBS and OBS elements and (for time-phased EVM) activities.	DOE M 413.3-1
142	PMB Baseline Submittal	The contractor submits the PMB Baseline to PARS II. The FPD reviews and accepts the PMB.	OECM 10/23/2008
143	PMB Rebaseline	The contractor submits PMB rebaselines to PARS II. The FPD reviews and accepts the rebaseline.	OECM 10/23/2008
144	PMB Baseline Versions	PARS II keeps each version of the PMB baseline (versions are identified by status date)	OECM 10/23/2008
145	PMB Baseline Comparison	PARS II will display a minimum of three baseline versions online for review.	OECM 10/23/2008
146	Reporting Against Multiple PMB	Actuals can be reported against prior	OECM 10/23/2008

	Name	Description	Source
	Versions	versions of a baseline.	

9.2.3 Management Reserve

	Name	Description	Source
147	Management Reserve (MR) Log	PARS II shall maintain the history of the contractor's allocation and consumption of MR.	OECM 10/23/2008
148	MR Information	The MR Log identifies the amount of reserve allocated to a WBS or OBS element and the date of the transaction. A narrative and/or document can be used to provide further information.	OECM 10/23/2008
149	Analysis Consumption of MR	PARS II will monitor the consumption of Management Reserve related to negative variances within the contractor's PMB.	OECM 10/23/2008

9.2.4 Risk Management

	Name	Description	Source
150	Risk Management Log	PARS II shall maintain risk logs for the project.	OECM 10/23/2008
151	Risk Management Information	The Risk Management Log identifies the risk and its attributes, its status, and the WBS or OBS to which it is tied. Project-level risks are tied only to the project not to the WBS/OBS.	OECM 10/23/2008
152	Risk Types	PARS II needs to provide multiple sets of risk types, as DOE programs use different risk types.	OECM 10/23/2008

9.2.5 Contractor Performance Reporting

	Name	Description	Source
153	Contractor Performance Reporting	The contractor reports performance against its scope, schedule and cost baseline on a monthly basis. It also provides variance analyses, MR status, and risk status.	
154	Schedule Performance	Schedule performance contains current schedule and relationship information on milestones, interim milestones, summary activities, and activities.	Proposed
155	EV Performance	EV performance contains current and cumulative ANSI-748 and Time-	

	Name	Description	Source
		Phased EVM information for WBS and OBS elements and (for time-phased EVM) activities.	
156	Variance Analysis	Variances are reported for the current month, cumulative-to-date, and against the Budget At Completion (BAC). They may be reported at the project and/or WBS and/or OBS level. A narrative and/or document can be used to provide further information.	
157	Reporting Cycles	The reporting follows the DOE reporting cycle and takes into consideration the contractor's reporting cycle.	OECM 10/23/2008
158	Reporting Submission	The contractor uploads reporting files to PARS II. The FPD reviews and accepts (or rejects) the files.	OECM 10/23/2008
159	Upload File Changes	No changes to the contractor upload files are allowed. Contractor data is stored as reported If the files are not acceptable, the contractor reprocesses and reloads after the FPD rejects the files.	OECM 10/23/2008
160	Retroactive Adjustments	Retroactive adjustments are reported in the next reporting cycle.	OECM 10/23/2008
161	Changes to Historical Data	A standard process with appropriate reviews and approvals will be developed for use when any change to historical data is made.	Proposed
162	Number of Submissions	The contractor can upload multiple submissions for a reporting period until the reporting period is closed out. The contractor identifies each submission as preliminary or final.	OECM 10/23/2008
163	Month Closeout	The FPD closes out the month after receiving and approving the final monthly file.	Dekker
164	Reporting Submission Mechanism	The contractor files are uploaded using a Web interface.	John Makepeace <get date>
165	Upload Process	The PARS II upload process checks for system and application errors. Fatal errors prevent the files from being uploaded.	OECM 10/23/2008
166	Upload File Formats	PARS II accepts the following file formats. XML X12 Comma delimited	Proposed

9.3 Calculations for PARS II – Both Modules

The calculations listed below will be utilized in the Oversight and Assessment module and/or the Contractor Project Performance module.

9.3.1 PB and PMB Calculations

	Name	Description	Source
167	Performance Baseline (PB) Calculation	PB = CBB + Contingency + Non-Contract Costs	DOE EVMS Gold Card
168	Contract Budget Base (CBB) Calculation	CBB = PMB + MR	DOE EVMS Gold Card
169	Performance Measurement Baseline (PMB) Calculation	PMB = CAs + UB + SLPPs	DOE EVMS Gold Card
170	Control Account Calculation	CA = WPs + PPs	DOE EVMS Gold Card

9.3.2 Budget Calculations

	Name	Description	Source
171	Budget At Completion (BAC) Calculation	BAC = PVcum	DOE EVMS Gold Card

9.3.3 Variance Calculations

	Name	Description	Source
172	Cost Variance (CV) Calculation	CV = EV – AC	DOE EVMS Gold Card
173	Schedule Variance (SV) Calculation	SV = EV – PV	DOE EVMS Gold Card
174	Cost Variance Percentage (CV%) Calculation	CV% = (EV – AC)/EV	DOE EVMS Gold Card
175	Schedule Variance Percentage (SV%) Calculation	SV% = (EV – PV)/PV	DOE EVMS Gold Card
176	Variance at Completion (VAC) Calculation	VAC = BAC – EAC	DOE EVMS Gold Card

9.3.4 Overall Status Calculations

	Name	Description	Source
177	Percent Scheduled (% Scheduled) Calculation	% scheduled = PVcum/BAC	DOE EVMS Gold Card
178	Percent Complete (% Complete) Calculation	% complete = EVcum/BAC	DOE EVMS Gold Card

	Name	Description	Source
179	Percent Budget Spent (% Budget Spent) Calculation	% budget spent = ACcum/BAC	DOE EVMS Gold Card
180	Work Remaining (WR) Calculation	WR = BAC - EVcum	DOE EVMS Gold Card
181	Budget Remaining (BR) Calculation	BR = BAC - ACcum	DOE EVMS Gold Card
182	Management Reserve (MR) Remaining (MRR) Calculation	MRR = MR – MR used to-date	OECM 10/23/2008

9.3.5 Performance Indices Calculations

	Name	Description	Source
183	Cost Performance Index (CPI) Calculation - Formula	CPI = EV/AC	DOE EVMS Gold Card
184	Cost Performance Index Calculation - Timeframe	CPI is calculated for the current period and for the cumulative period	
185	Schedule Performance Index (SPI) Calculation - Formula	SPI = EV/PV	DOE EVMS Gold Card
186	Schedule Performance Index (SPI) Calculation - Timeframe	SPI is calculated for the current period and for the cumulative period	
187	To Complete Performance Index (TCPI) BAC (TCPIBAC) Calculation	TCPIBAC = WR/BR	DOE EVMS Gold Card
188	To Complete Performance Index (TCPI) EAC (TCPIEAC) Calculation	TCPIBAC = WR/ETC	DOE EVMS Gold Card

9.3.6 Completion Estimates Calculations

	Name	Description	Source
189	Estimate At Completion (EAC) General Calculation	EAC = BAC/CPIcum	DOE EVMS Gold Card
190	Estimate at Completion, CPI (EACCPI) Calculation	EACCPI = ACcum + WR/CPIcum	DOE EVMS Gold Card
191	Estimate at Completion, Composite (EAComposite) Calculation	EACcomposite = ACcum + WR/CPIcum*SPIcum)	DOE EVMS Gold Card
192	Estimated To Complete (ETC) Calculation	ETC = EAC - ACcum	DOE EVMS Gold Card

9.3.7 Other Calculations

	Name	Description	Source
193	CD-1 Budget Profile	The total budget profile entered at	

	Name	Description	Source
		CD-1 = the Approved High End Cost Range at CD-1	

10 SYSTEM ARCHITECTURE

The technical components of the system are described below.

10.1 Technical Architecture

Platforms

- Web Server: Windows 2000, 2003, 2008
- Client: Windows 2000, XP, Vista
- .Net Framework 3.5

Source Code Language (MS Visual Studio 2005)

- C
- C#
- Visual Basic

Databases Supported

- Oracle 9i, 10g, 11g
- SQL Server 2000, 2005, 2008

Web Enablement

- Fully Web-Enabled
- Supports Secure Socket Layer (SSL)
- Client Installation Required For Some Features

User Access/Network Requirements

- Client to Application Server (Any Type of Network Is Supported)
    - LAN
    - WAN
    - Wireless
    - Internet
- LAN Connection Between Web Server and Database

Client Requirements

- Processor: Pentium 4, 2.0GHz or Better
- Memory: 1 GB
- Disk Space:
    - TRAKKER: 160MB
    - iPursuit: 120MB
    - Traction: 100MB
    - iPortfolio: Web Browser Only
- Windows Vista Requires Higher Specifications

Web Server Requirements

- Processor: Xeon 2.0GHz or Better (1 Per 20 Users)
- Memory: 1GB + 1GB Per 20 Users (Min 2GB)

- Disk Space: 1GB
- Does Not Include Database Server

Integration

- Pass/Receive Data
  - Integrate to Anything
  - Web Services
  - Database Links
  - Feed Files
- Resources Required
  - Standard Integration to MS Access, Excel, Project, Outlook and PowerPoint
  - Configurable Integration to Over 20 Financial Systems
    - Implementation Services Required
    - Effort Depends on Complexity
    - Average of Two Weeks

Security

- MS Active Directory
  - Restrict Access to Applications
  - Push Installation
- User/Group Security
  - Configurable Group Privileges
  - Allows multiple groups/roles per user
  - Control access to:
    - Features
    - Projects
    - Activities
- Database Security
  - Supports Oracle/SQL Security
  - DB Configuration Hidden from Users

10.2 Technical Implementation

10.2.1 Dekker Software Components

The Dekker Project Management Information System (PMIS) is a complete project portfolio management (PPM) and analysis system consisting of integrated cost, schedule, resource, performance tracking and financial management components. PMIS components can assist in managing analyzing, controlling and prioritizing every detail of every project and program across the enterprise. Project data can also be shared remotely and securely via the Internet. The PMIS software bundle consists of the following Dekker applications:

- Dekker TRAKKER® is the enterprise project management (EPM) engine that drives the Dekker PMIS™. TRAKKER comes equipped to manage cost, schedule, resource, performance and financial information, and can integrate with any existing software and servers you might already use, such as Microsoft® Project, Office or SQL Server. An earned value component is available for users who control their efforts via earned value

management (EVM).

- Dekker iPursuit® is a robust PPM analysis tool that can be used on a single project to monitor performance and ensure success, or that can be used to analyze an entire enterprise by linking to different, operational databases to establish the guidelines used for effective PPM. An optional EVM component can be used to easily extrapolate earned value information directly from Microsoft® Project. iPursuit works well with most project management applications to provide an enhanced view of project performance in terms of financial, non-financial and user-defined program metrics.

- Dekker Traction™ aligns organizational goals and objectives to the Key Performance Indicators (KPIs) used to quantify the strategic performance of your organization. The speed and accuracy with which Traction monitors KPIs gives users unprecedented insight into potential risks long before they become threats.

- Dekker iPortfolio® enables decentralized organizations and their project teams to share and access project data remotely and securely via the Internet.

10.2.2 Implementing Dekker Software Components

PARS II applications will implement Dekker software components in the following manner:

1 Oversight & Assessment Data Collection will use the following software tools:

- Dekker iPortfolio – to enter data, edit data, validate data, send attachments, view data, print data via the web

1. Contractor Project Performance Data Collection will use the following software tools:

- Dekker Trakker – to import, configure and export WBS, OBS and schedule data
- Dekker Traction – to write variance reports, to edit risk logs
- Dekker iPortfolio - – to run, view and print the report via the web

3. Report generation will use the following software tools:

- Dekker iPursuit – to create and test the report
- Dekker iPortfolio – to run, view and print the report via the web

2. Report access (e.g., running reports) will use the following software tools:

- Dekker iPortfolio – to run, view and print the report via the web

10.2.3 Computer Hardware and Software Components

The major hardware and software components of the system appear below.

Hosting Components

- The DOE Applications Hosting Environment, located in Germantown, MD, providing the application with facility, power, physical security, heat, light, cooling, cyber security procedures, data backup services, help desk services, equipment racks, cables, network components, and access to DOE's wide area network.
- Applications Server Computer Hardware (e.g., web server)
- Applications Server Operating System (Windows)
- Web Applications Server IIS
- Web Applications Server Utility Software (anti-virus, etc.)
- COTS Application Software (e.g., Dekker, other)
- Database Server Hardware
- Database Server Operating System (Oracle)
- Database Server Drivers and Database
- Network Hardware Components (routers, firewalls, cables, wide area network)
- User Workstations at DOE Field Sites Headquarters

Database Components

- Oracle software, drivers, licenses and documentation
- Database tables
- Database data elements (including performance metrics)
- Database relationship diagram
- Database stored procedures
- Data Dictionary
- Data elements to accommodate XML upload interface

10.2.4 DOE Network

The table below lists the DOE sites that are configured to connect to the Department of Energy's internal network called "DOENET". This table was provided by Carol Carlson from EES on September 9, 2008.

DOENet Sites Table

	DOENet Site Name & Address
1	**DOE Corporate Network**
	Program Integration Team
	U.S. Department of Energy (IM-40)
	19901 Germantown Rd Germantown, MD 20874
	Germantown - PIP Circuit
	Forrestal – ATM
2	**Bonneville Power Administration (PMA)**
	(shared circuit with the Richland Operations Office)
3	**Carlsbad Field Office (CBFO) (EM)**
	Waste Isolation Pilot Plant DOE/CAO, Box 2078
	4021 National Parks Hwy.,

	DOENet Site Name & Address
	Carlsbad, NM 88221-2078
4	**Chicago Operations Office (Science)**
	9800 S. Cass Ave.
	(access via; Bldg. 200 MPOP to Bldg 221)
	Argonne, IL 60439
5	**Energy Training Service (ETS)**
	2309 Renard Pl, SE
	Albuquerque, NM
6	**EM Consolidated Business Center (EM CBC)**
	250 East Fifth Street
	Cincinnati, OH 45202
7	**Golden Field Office (EE)**
	1597 Cole Blvd
	Golden, CO 80401
	(Circuit: Golden EE Cluster –shared with NREL)
8	**Grand Junction Site Office (LM)**
	2597 B3/4 Road
	Bldg. 810, FL. 2
	Grand Junction, CO 81503
9	**Idaho Operations Office (NE)**
	INL – 1155 Foote Place, Telecom Switch Room, Idaho Falls, ID 83401
10	**National Energy Technology**
	1450 Queen Ave. SW
11	**National Energy Technology Laboratory/Morgantown**
	(NETL/Morgantown) (FE)
	3610 Collins Ferry Rd, Morgantown, WV
12	**National Energy Technology Laboratory/Pittsburgh– NETL/Pittsburgh (FE)**
	NETL Pittsburgh FE
	626 Cochrans Mill Road
	Pittsburgh, PA
13	**National Energy Technology Laboratory**
	(NETL/Tulsa) (FE)
	(NPTO/SWPA)
	1 West 3rd St., Williams Tower, Suite 1447,
	Tulsa, OK 74103
14	**NNSA Service Center (NNSA)**

	DOENet Site Name & Address
	(formerly the Albuquerque Operations Office)
	Bldg. 20385 / 2nd Fl., Pennsylvania & H St.,
	Albuquerque, NM 87185
15	**National Renewable Energy Laboratory, NREL(EE)**
	(Circuit: NREL/DRO)
	1617 Cole Blvd
	Golden, CO 80401
16	**Nevada Site Office (NNSA)**
	Network Ops Center,
	501 E. Atlas Drive
	Bldg. A-1,
	Rm 4351 North
	Las Vegas, NV 89030
17	**Oak Ridge Operations Office (SC)**
	FTS200 Demarc: Y-12 Plant Bldg. 9702-1 Switch Rm, Bear Creek Road
	Oak Ridge, TN 37831
17a	**Office of Legacy**
	3600 Collins Ferry Road
	Research Ridge Building 4
	Morgantown, WV 26507
18	**Office of Repository Management**
	(RW)
	1551 Hillshire Drive
	Room 361
	Las Vegas, NV 89144
19	**Ohio Field Office (EM)**
	175 TriCounty Parkway
	Springdale, OH 45246
20	**Pantex Plant (NNSA/DP)**
	FM 2373 &Highway 60
	PO Box 30020
	Amarillo, TX 79120
21	**Pittsburgh Naval Reactors (NNSA/NR)**
	BETTIS 81, Pittsburgh-McKeesport Blvd
	West Mifflin, PA 15241
22	**Portsmouth Paducah Project**

	DOENet Site Name & Address
	1025 Monarch St.
23	**Richland Operations Office (EM)**
	825 Jadwin Ave
	Richland, WA 99352
	M-POP G112
24	**Rocky Mountain Oilfield Testing Center (RMOTC) (FE) (formerly NPOSR)**
	907 North Poplar Street, Casper, WY 82601
	Rocky Mountain Oilfield
26	**Savannah River Operations Office**
	US DOE
	Savannah River Plant
	Bldg. 703, 41A Red Room
	Aiken, SC 29802
27	**Schenectady Naval Reactors (NNSA/NR)**
	DOE-Naval Reactors –Knolls Atomic Power Laboratory,
	** Street Address: 2401 River Road, Niskayuna, NY 12309
	** Mailing Address: PO Box 1069, Schenectady, NY 12301-1069
28	**Southeastern Power Administration (PMA)**
	1166 Athens Tech Road
	Elberton, GA 30635-6711
29	**Southwestern Power Administration (SWPA)**
	(PMA)
	(Shared circuit with NETL-Tulsa)
	1 West 3rd St., Williams Tower, Suite 1447,
	Tulsa, OK 74103
30	**Strategic Petroleum**
	Reserve Office (SPRO)
	(FE)
	900 East Commerce Rd
	Switch Room 3rd Fl, Haraham, LA 7012
31	**Washington D.C.**
	Washington D.C.
32	**Western Area Power Administration (WAPA) (PMA)**
	12155 West Alameda Parkway
	Lakewood, CO
	80228-2802

	DOENet Site Name & Address
33	**West Valley Site Office (EM)**
	DOE-WV-ACS/GSG, 10282 Rock Spring Rd., M/S-37
	West Valley, NY
	14171-9799
34	**Y12 Site Office**

11 DESIGN ISSUES

The table below contains a list of open issues that are expected to have a significant impact on the project. Table headings identify: (1) the description for each open issue, (2) the date that the issue was originally recorded (posted), (3) the date that the issue was resolved, and (4) a place for additional comments.

	Description of Open Issue	Date Posted	Date Resolved	Additional Comments
1	Will application/web hosting for the beta test occur at Dekker or DOE AHE facilities?	8/28/08		
2	Do all workstations to be used for creating PARSII reports with Dekker software have Microsoft Professional Office software installed on the desktop[?	8/28/08		
3	ARTS provides overall assessment narratives and RYG indicators on reports. Should this feature be implemented in PARS II?	8/28/08		
4	What are the rules for processing parent and child projects? (The ARTS "Projects With CD-2 report has duplicate projects listed).	8/28/08		
5	Will sites provide Safety Logs and, if so, how will PARS II capture them?	9/26/08		
6	Can PARS II store contractor-provided documents in DOE's SharePoint, eDocs or Documetum applications?	9/26/08		
7	Dekker software installed at each site must have a login capability.	9/26/08		

12 OPERATIONAL ENVIRONMENT

This section describes the physical operational environment in terms of facilities, equipment, computing hardware, software, personnel, operational procedures and support necessary to operate the deployed system.

Facilities Where PARS Will Be Used

- Dekker Headquarters in Ontario, California – for development and configuration of the system.
- Dekker Office in Reston Virginia – for local support, communication and training
- EES Headquarters Building in Germantown, MD – for project management, system integration, communications, PARS Help Desk, PARS System Administration, custom programming, configuration of PARS, and training.
- DOE Applications Hosting Computer Center in Germantown, MD – for hosting the application server, database server, network components, Dekker application software, custom-developed software.
- DOE Applications Hosting Computer Center in Washington DC (Forrestal) – for hosting the Oracle test database.
- DOE Headquarters, Washington DC (Forrestal) – for the DOE Headquarters users of PARS, which will include: OECM management, analysts and staff, Program Office management and staff
- DOE Sites – for running PARS to collect and submit project data from each site.

Computing Hardware

- Applications Server
- Database Server
- Network routers, cables, firewalls
- Heat, light, power, UPS
- Racks, cables
- Physical security devices (door locks, badge scanners)
- Other components

Software

- Operating Systems software
- Database software
- Network monitoring software
- Anti-virus software
- Dekker software
- Microsoft Office Systems software
- Microsoft Internet Information Systems software
- Utility software
- Other software

Computer Room Personnel

- Windows Operating System administrator
- Oracle Database Administrator
- Network administrator
- Cyber Security Administrator
- Facilities Personnel
- PKI Administrator

Operational Procedures and Support Required to Operate System

- TBD

13 USE CASES - OPERATIONAL SCENARIOS

The use cases are scenarios and are the "heart of the document". They describe a sequence of events, activities carried out by the user, the system, and the environment. The "use case" specifies what triggers the sequence, who or what performs each step, when communications occur and to whom or what [e.g., a log file], and what information is being communicated. ***Please note that use cases will be revised after reviews with DOE, after discover sessions, peer reviews, and at other points in the project, as directed by DOE.***

13.1 Use Cases for the Contractor Project Performance Module

13.1.1 Introduction to the Contractor Project Performance Module and Schema

Contractors who report project performance information under an Earned Value management environment must integrate data from various sources to produce the cost performance reports defined in ANSI 748. To accomplish this, the contractor compiles information from his financial, scheduling and forecasting systems. The process of compiling EVM reports for submittals takes time and requires verification from the perspective of the contractor. It is recommended that DOE adopt a cycle time for contractors to produce the electronic submittals. For example, cost performance reports could be due five (5) days after each period of performance close out, followed by variance analysis by the 25th of each month, or the next working day should the 25th fall on a non-workday. The reporting cycle should allow a contractor to align their "actuals" to the performance metrics associated with EVM. Schedules and labor hours could be collected on a more frequent basis as these metrics are sensed within monthly periods of performance. PARS II should allow Federal Project Directors (FPD) to collect intermediate schedule and resource updates; it is common to receive schedule updates bi-weekly and cost performance reporting monthly, based upon the contractor's fiscal calendar. The following narrative describes the process of a contactor submitting performance data to the PARS II database, using the Contractor Project Performance module.

Narrative for Submitting Project Performance Data to PARS II

At the end of each fiscal period, the Site Contractor processes schedule and EVM performance data for each project. .Once the Contractor determines that the data is ready for sending to PARS II, the Contractor "uploads" the performance information based upon the schematic supplied in Figure 2 (below). The type of submittal can be in the following formats:

1. ANSI X12 Files for Cost and Schedule
2. Comma Delimited Files
3. Excel Worksheets
4. X12 XML
5. MPE

6. Microsoft Project Databases (MSP and MSPX)
7. Dekker TRAKKER®
8. Primavera® (Schedule Data)
9. And various other files as listed in Dekker documentation.

To prepare the project data for submission to PARS II, the configuration software prompts the user to enter some descriptive information about the upload file (e.g., filename, date, site name, file contents, etc) and to select one of the file formats mentioned above, so that the data can be uploaded into the PARS II database for the current reporting period. Initially, the submittals will be made through a thick client version of Dekker PMIS™ software. The web version of PARS II will be supported through Dekker iPortfolio® software, which will also be configurable to accommodate the upload process. Changes to data contained in the upload file will not be permitted, either at the contractor site or at Headquarters.

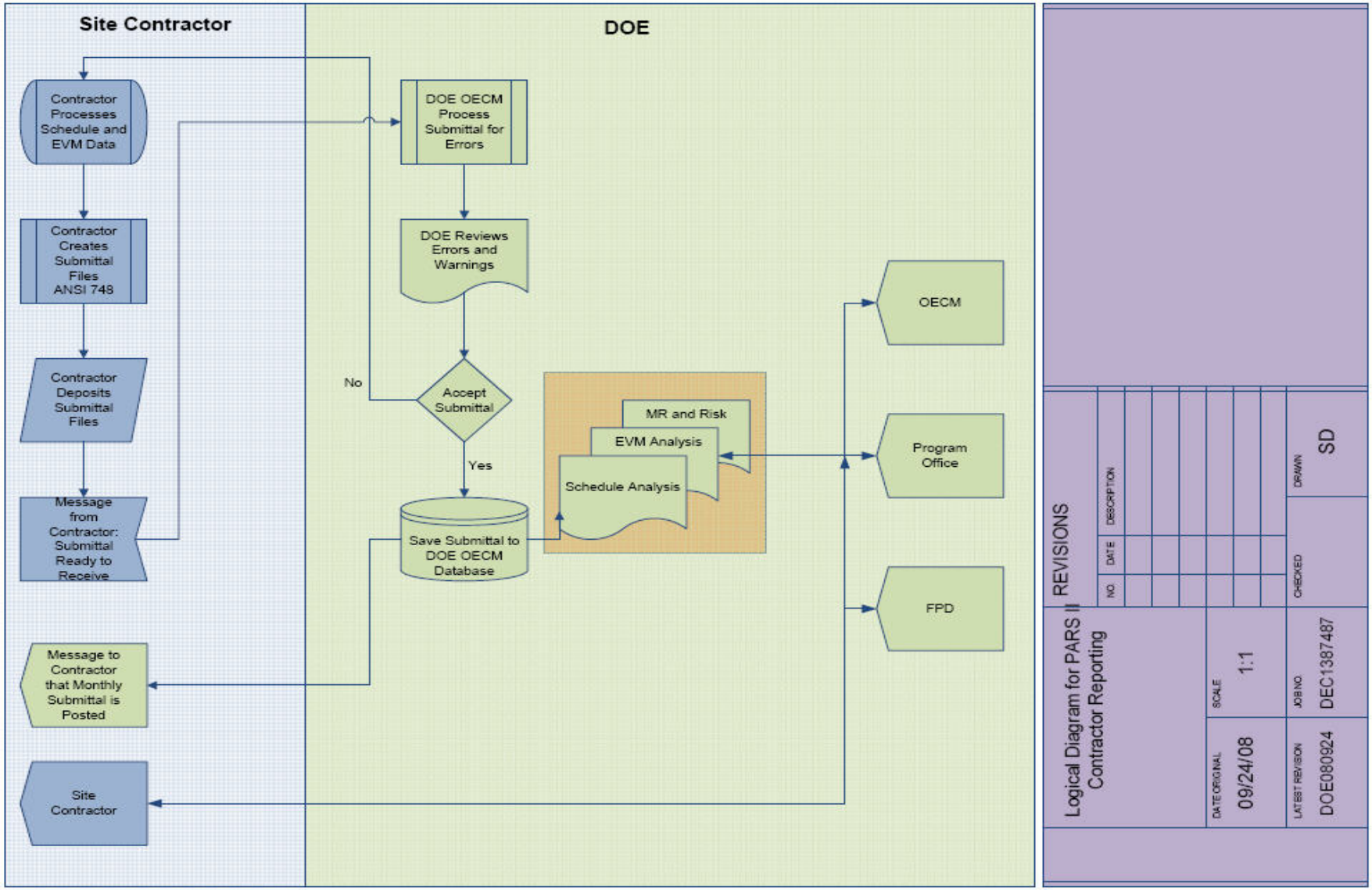
Once the Contractor sends the upload files to PARS II, immediate feedback will be provided in the form of error checking logs. Errors reported can be categorized as systemic, formatting, and applicative to project management. Applicative errors are classified as scheduling and EVM and are marked as fatal, non-fatal and warning types of errors. Fatal errors are those that prohibit the data from being uploaded into the database. Data formatting, missing vital fields, inappropriate coding structures, and system availability issues tend to be severe anomalies that prohibit the upload process. These errors are alerted immediately so the user can take appropriate action. Inconsistent errors are those that take into consideration the application of project management. Examples of these errors are activities not tied to WBS elements, actuals posted in the future, BCWP posted in the future, unauthorized line item changes from the baseline. Such errors should be reviewed and corrected by the contractor to ensure performance reporting integrity. Errors and warnings are reported and available for review by both the contractor and DOE representatives. A list of these errors is provided for in Table 1 (below).

When an upload is successful, an alert is issued, informing the contractor and any other DOE designee that data in the upload file is available for review. PARS II will also provide a visual reference, by project, indicating the review readiness of the project performance data. Readiness can be determined by the status date of the information, the submission date, and via DOE analyst validation.

Next, the DOE analyst reviews and approves the upload file submitted by the contractor. The analyst can accept or reject the submittal, based on his/her assessment of the error log. Once the project upload file has bee approved, all authorized OECM Analysts, Program Office Analysts, Federal Project Director and Contractors can review the same information through the PARS II web interface (using Dekker iPortfolio® software).

In addition to the schedule and EVM data, contractors may be able to provide other types of data items such as Management Reserve, Risk l and Variance Analysis Reports (VARs) and made available for viewing via the PARS II web application. These additional files will be uploaded and linked to their respective projects via the upload mechanism (to be determined by the EES/Dekker implementation team) based on feedback from the site visits. Once uploaded to the PARS II server, the upload files and be viewed and analyzed by authorized personnel.

Figure 2 - Logical Diagram for PARSII Contractor Reporting



File Schema Objectives

The PARS Project Team believes that ANSI 748-B should be the preferred standard for implementing project schedule and EVM data. The exact nature of what type of information and systems will be available at contractor sites (e.g., WBS/OBS/ABS, Variance Logs, Risk Logs, etc.) will be determined by the variety of scheduling and cost systems that are in-use at contractor business environments. A certified contractor capable of reporting EVM metrics should not have an issue with delivering electronic data under the schema formats identified in the ANSI 748 doctrine. Invariably, there will be contractors incapable of creating the requisite formats. Under that condition, the PARS II system, using Dekker PMIS™ software, will offer the ability to support the business and technical rules specified in ANSI 748B to assist the contractor to process and generate properly formatted upload files.

The preliminary schema, representing EVM and schedule data to be submitted by the contractor, is depicted in Table 1 – Submittal Schema

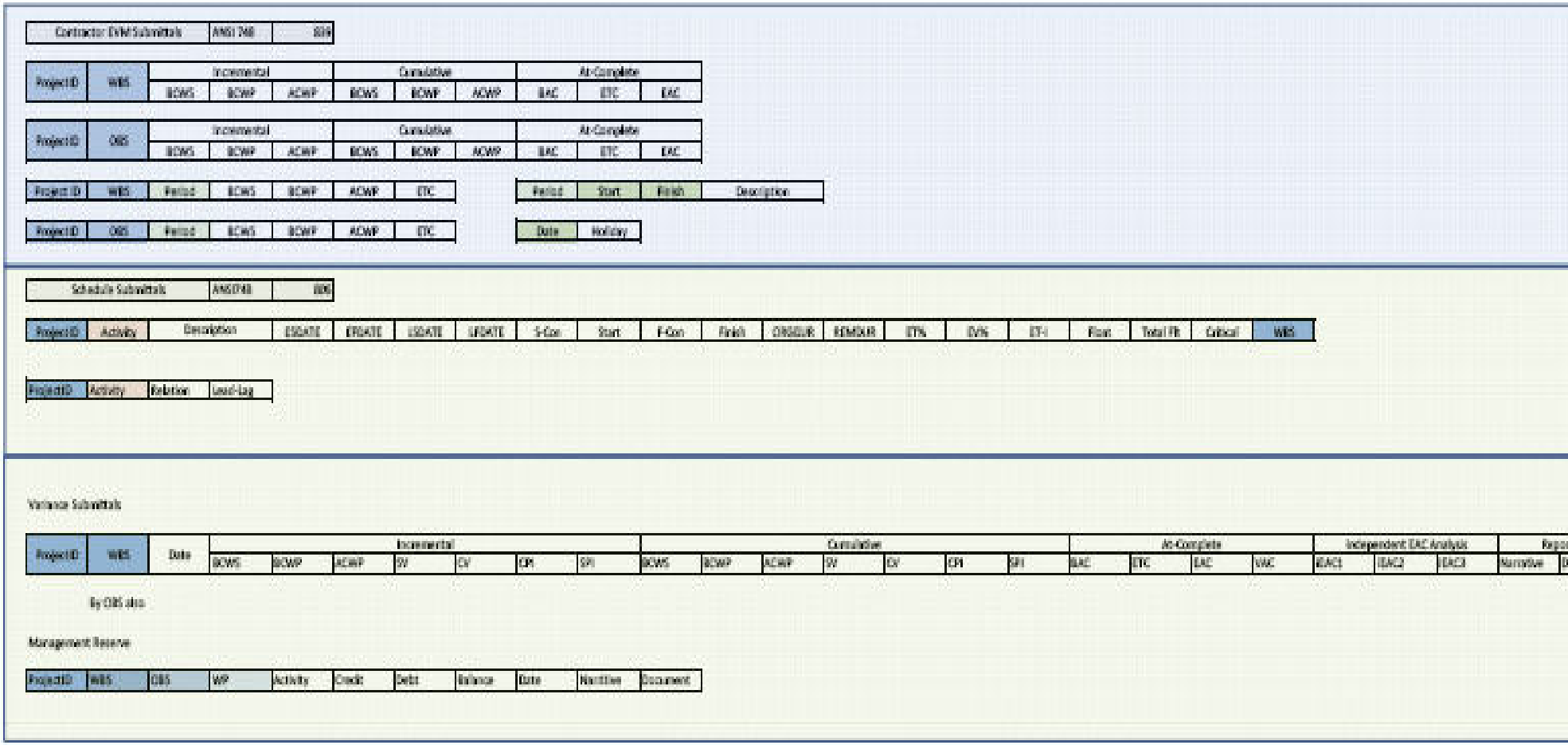
Introductory Notes for Table 1: Submittal Schema

- File formats are categorized by EVM, schedule, management reserve and risk logs.

- Management reserve and risk logs do not appear in ANSI 748; however, PARS II can be configured to enable DOE and Contractor representatives to enter variance reports based upon the outcomes of the project management submittals.

- ANSI Standard 748 A incorporates electronic data interchange for CPR Formats 1-5. ANSI Standard 748 B incorporates CPR 1-5 formats plus scheduling information. Additionally, ANSI 748 B includes formats for obtaining time-phased information too.

Table 1: Submittal Schema



13.1.2 Use Cases for Contractor Project Performance Module

This section describes the operational scenarios for using the PARS II Contractor Project Performance module.

Business Process Use Case 1 – Create Project	
Use Case ID Number	UC1
Description	Once authorization to proceed on a new project has been given, the Contractor transmits data to the PARS II database. This is a data transmission of selected data subsets during the project start up phase before the schedule and cost baselines are set (a short time frame right after contract award). The purpose of this transaction is to exchange the data components needed to begin developing the schedule and cost baselines. There are no set timetables for the data exchange; they occur when data updates are needed.
Initiating Actor	The Contractor
Participating Actor	DOE OECM Analyst
Event Flow	1. Contractor sends desired data subset to the DOE OECM Analyst. 2. DOE OECM Analyst acknowledges receipt of the data subset submission. 3. DOE OECM Analyst validates the content of the data submission.
Expected Outcome	DOE OECM Analysts process the data for use in initiating a project.
Exception	Data content exceptions are handled with a Provide Error Notice.

Business Process Data Categories	• Summary contract data
	• Auxiliary data
	  o Reporting structure data (WBS, milestone hierarchy)
	  o Single level reporting structures used for selecting and sorting data
	  o Calendars (cost reporting and schedule)
	  o Variance thresholds
	• Network schedule data (work tasks, milestones, relationships)
	• Network schedule data with resource assignments (resource amounts assigned to activities)

Business Process Use Case 1 – Create Project	
Use Case ID Number	UC1
	• Period based cost data (budget)

Business Process Use Case 2 – Report Project Performance	
Use Case ID Number	UC2
Description	A Contractor sends current reporting period project schedule status and cost performance data or funding data to the PARS II database on a periodic basis. This is a data transmission of a complete report set or subsets for the current reporting period. The purpose is to provide current project status and performance data to PARS II on a regular, periodic basis. OECM's contract with the Contractor will define what schedule status and cost performance data must be made available.
Initiating Actor	The Contractor
Participating Actor	OECM Analyst
Event Flow	1. Contractor collects status and performance data. 2. Contractor sends data to the PARS II database. 3. OECM Analyst validates the content of the data submission. 4. Steps 1 to 3 are repeated until a complete and valid data set has been sent. A data set is considered complete when: a. All required parts have been received, and b. Data warnings and/or errors are found to be minimal by the OECM Analyst. 5. OECM Analyst acknowledges the receipt of a valid data set.
Expected Outcome	OECM Analysts receives valid schedule and performance data for analysis.
Exception	Data content exceptions are handled with a Provide Error Notice.
Business Process Data Categories	• Summary contract data as applicable (include updates as a result of any change orders since the last performance report) • Network schedule data (work tasks, milestones, relationships) • Current reporting period summary cost data (current period, cumulative to date, at complete budget, earned value, actual, estimate to/at complete) • Period based cost data where applicable o Budget (contractor baseline changes) o Estimate (contractor equivalent heads – staffing) o Actual (supplier – as an alternative to cum/at complete data)

Business Process Use Case 2 – Report Project Performance	
Use Case ID Number	UC2
	o Earned value (supplier – as an alternative to cum/at complete data) • Funding data

Business Process Use Case Use Case 3: Provide Error Notice	
Use Case ID Number	UC3
Description	The OECM Analyst discovers an error in the data sent by a Contractor. The OECM Analyst sends an error notice to the data provider identifying the data in error. This is a data transmission that identifies what data is in error from a previous transmission. The purpose is to initiate a correction transmission from the Contractor. The content of the error message is a basic report identifying errors.
Initiating Actor	OECM Analyst
Participating Actor	The Contractor
Event Flow	1. OECM Analyst processes and validates data content for errors. 2. OECM Analyst identifies the data content causing the error(s). 3. OECM Analyst sends an error notice identifying items in error to the Contractor. 4. Contractor acknowledges receipt of the error notice.
Expected Outcome	Contractor responds with a Provide Update Notice to the OECM Analyst to correct the items in error.
Exception	N/A
Business Process Data Categories	Acknowledgements

Business Process Use Case 4 – Provide Update Notice	
Use Case ID Number	UC4
Description	The Contractor sends an update to the OECM Analyst to modify data previously sent. The data sent can identify data to be added, data to be replaced (changed), or data to be deleted. This update can be in response to an error notice from the OECM Analyst to correct data in error; or it can be updates that the Contractor deems necessary to complete or update any previous exchange of data. This is a data transmission of selected data. It may be a data subset or a smaller (identifiable) chunk of data.
Initiating Actor	The Contractor
Participating Actor	OECM Analyst
Event Flow	1. The Contractor identifies the data subset to be updated. 2. The Contractor sends updated data subset to the DOE OECM Analyst. 3. OECM Analyst validates content of the data submission. 4. OECM Analyst acknowledges receipt of data subset.
Expected Outcome	OECM Analyst receives updated data for analysis.
Exception	Data content exceptions are handled with a Provide Error Notice.
Business Process Data Categories	Can be any category of data.

Business Process Use Case 5 – Revision to the Project Measurement Baseline (PMB)	
Use Case ID Number	UC5
Description	If the DOE authorizing official has approved a change to an existing Performance Measurement Baseline, then the Contractor will transmit the required data set or subsets necessary to change the project performance measurement baseline (PMB).
Initiating Actor	The Contractor.
Participating Actor	OECM Analyst
Event Flow	1. Contractor sends the desired data subset to the OECM Analyst. 2. The OECM Analyst validates the content of the data submission. 3. The OECM Analyst acknowledges the receipt of a complete and valid data set or subset.
Expected Outcome	The OECM Analyst processes the PMB change data for analysis.
Exception	Data content exceptions are handled with a Provide Error Notice.
Business Process Data Categories	• Summary contract data including change order data • Auxiliary data o Reporting structure data (WBS, milestone hierarchy) • Network schedule data (work tasks, milestones, relationships) • Network schedule data with resource assignments (resource amounts assigned to activities) • Period based cost data (budget, estimate to complete)

Business Process Use Case 6 - Update Project Within the Performance Measurement Baseline	
Use Case ID Number	UC6
Description	The Contractor sends updates to the OECM database when minor changes and updates need to be incorporated into the current working schedule or cost estimate to complete data. These updates incorporate normal maintenance or other minor changes that do not impact the schedule and cost baselines. An example would be replacing a planning package with detailed tasks (and related cost details). This is a data transmission of selected data subsets during the execution phase of a project. The purpose is to exchange the data components needed to keep the current working schedule (the future work plan) or estimate to complete data up to date based on what has occurred to date on the project. There are no set timetables for the data exchange; they occur when data updates need to be sent from the Contractor to the OECM Analyst.
Initiating Actor	The Contractor
Participating Actor	DOE OECM
Event Flow	1. The Contractor sends the desired data subset to the OECM Analyst. 2. OECM Analyst validates the content of the data submission. 3. OECM Analyst acknowledges the receipt of a complete and validated data set or subset.
Expected Outcome	The OECM Analyst processes the data for analysis.
Exception	Data content exceptions are handled with a Provide Error Notice.
Business Process Data Categories	• Network schedule data (work tasks, milestones, relationships) • Network schedule data with resource assignments (resource amounts assigned to activities) • Period based cost data (typically estimate to complete, but may include rolling wave budget updates where planning packages are replaced) • Auxiliary data o Variance Thresholds

Business Process Use Case 7 – Cancel Project	
Use Case ID Number	UC7
Description	The Contractor submits data to PARS II once a cancellation notice has been given to stop work. This is a data transmission of selected data subsets. The purpose is to capture schedule status, actual costs, and remaining obligation data related to the cancellation of the project. There may be a set timetable for OECM to receive all applicable data.
Initiating Actor	The Contractor
Participating Actor	OECM Analyst
Event Flow	1. The Contractor sends required data subset to the OECM Analyst. 2. The OECM Analyst validates the content of the data submission. 3. The OECM Analyst acknowledges receipt of a complete, valid data subset submission.
Expected Outcome	OECM Analyst receives data for analysis.
Exception	Data content exceptions are handled with a Provide Error Notice.
Business Process Data Categories	• Summary contract data • Network schedule data (final deliverables) • Final period based cost data (actual) • Funding data (required for contract close out to determine what funds have been expended so far and amount of cancellation obligations)

Business Process Use Case 8 - Complete the Project	
Use Case ID Number	UC8
Description	The Contractor submits final data to the OECM Analyst for analysis (all final deliverables have been received and accepted by the end client). This is a data transmission of selected data subsets. The purpose is to capture final schedule and actual cost data at the end of the project (can be used for estimating the cost of similar projects). There may be a set timetable for the end client to receive all applicable data.
Initiating Actor	The Contractor
Participating Actor	DOE OECM
Event Flow	1. The Contractor sends required data subset to the DOE OECM Analyst. 2. The OECM Analyst validates the content of the data submission. 3. The OECM Analyst acknowledges receipt of a complete, valid data subset submission.
Expected Outcome	The OECM Analyst receives data for analysis.
Exception Table 2 Error & Warning Types and Descriptions	Data content exceptions are handled with a Provide Error Notice.
Business Process Data Categories	• Summary contract data • Final network schedule data (work tasks, milestones, relationships) • Final period based cost data (actual) • Funding data

Table 2 - Error & Warning Types and Descriptions				
Item	**Error Type**		**Description**	**Classification**
1	Scheduling	Activity Name	Missing or duplicate Activity Name	Fatal
2		Resource	Missing or duplicate Resource Name	Fatal
3		WBS	Missing or duplicate WBS Id Parent WBS cannot be located	Warning
4		OBS	Missing or duplicate OBS Id Parent WBS cannot be located	Warning
5		% Complete % EV	Timing difference for % complete/EV % > 0 for a future start or not started for historical dates.	Fatal or Warning
6	Earned Value			
7	Data Format Errors	Data type	Expects text, date, amount or percentage when the data does not match the expected type.	Fatal
8		Field Size		
9		Segments	Data are segmented and must be matched with a valid data code. If the number of segments is not specified or the number of segments reported does not match an error message will be reported.	Fatal
10		Codes	EDI format 839C Project Cost Reporting defines the allowable codes to identify the type of	Fatal

Table 2 - Error & Warning Types and Descriptions				
Item	**Error Type**		**Description**	**Classification**
			data. If an invalid or no code is identified a line item of data cannot be posted.	
11	Data Errors	Duplicate Project Names	If a duplicate project name exists then the data can not be posted until a unique Project Name is provided.	Fatal
12		WBS/OBS	WBS/OBS changes were detected in the importing period data.	Warning
13		WBS	Missing or duplicate WBS Id Parent WBS cannot be located	Fatal
14		OBS	Missing or duplicate OBS Id Parent WBS cannot be located	Fatal
15		Key Code	A duplicate Key Code, WBS or OBS was detected. Mandatory Key Code, WBS or OBS was not specified	Fatal

13.1.3 Use Cases for the Oversight and Assessment Module

The Use Cases in this section are designed to show how data will be entered into PARS II via the Oversight and Assessment module.

Business Process Use Case 100 – Approval of CD-0 (Mission Need)	
Use Case ID Number	UC100
Description	Upon approval of Mission Need at CD-0, the owning Program Office will use PARS II to enter project definition data into the system.
Initiating Actor	DOE Program Office (PO) or Federal Project Director (FPD)
Participating Actors	DOE OECM Analyst
Event Flow	• The DOE Program Office Analyst enters the required project initiation data into the PARSII Oversight and Assessment module, such as the: Project ID, Project Name, Project Acronym, Project Description, Project Objectives, Project Type, Project Size, Project Category, Project Activity Status, Managing Program Office Code, Mission Need Statement, TPC$ at CD-0 (low estimate) and TPC$ at CD-0 (high estimate). • The OECM Analyst will enter the date that the CD was approved, along with the name of the approving authority and the corresponding narrative.
Expected Outcome	This new project will be positioned directly after process step “CD-0 Approval” in PARS II and will be available for analysis and status reporting.
Exception	N/A
Business Process Data Categories	• Project Attributes o Project Identity o Project Mission Statement o Project Scope o Project Responsibility o Project Cost

Business Process Use Case 110 – Approval ofCD-1 (Alternative Selection and Cost Range)	
Use Case ID Number	UC110
Description	Upon approval of Alternative Selection and Cost Range at CD-1, the owning Program Office will access the PARS II application to enter project definition data into the system. The Federal Project Director (FPD) may perform this data entry role, if already assigned to the project.
Initiating Actor	DOE Program Office (PO) or Federal Project Director (FPD)
Participating Actors	DOE OECM Analyst
Event Flow	• The DOE Program Office will enter the name of the newly assigned FPD. • The FPD will enter the Milestones for the project • The FPD will enter the name of site and name of the project location. • The FPD will enter the TPC$ at CD-1 (low estimate) and TPC$ at CD-1 (high estimate). • The OECM Analyst will enter the initial Key Performance Parameters for the Project. • The OECM will enter the FPD Certification Status, Certification Date, Certification Level. • The FPD will enter the Estimated Completion Date at CD-1 (estimated high mm/dd/yy) • The OECM will enter the Budget Profile data elements (TBD) • The OECM will enter the Contractor EVMS Certification Status and Certification Date. • The OECM Analyst will enter the date that the CD was approved, along with the name of the approving authority and the corresponding narrative.
Expected Outcome	This new project will be positioned directly after process step CD-1 in PARS II and will be available for analysis and status reporting.
Exception	N/A
Business Process Data Categories	• Project Attributes o Project Identity o Project Mission Statement o Project Scope o Project Responsibility o Project Budget

Business Process Use Case 110 – Approval ofCD-1 (Alternative Selection and Cost Range)	
Use Case ID Number	UC110
	o Project Cost

Business Process Use Case 115 – Monthly Updates	
Use Case ID Number	UC115
Description	At the end of each month, the FPD, Program Office and OECM Analyst will review and update the data elements listed in this scenario.
Initiating Actor	DOE Program Office (PO) or Federal Project Director (FPD)
Participating Actors	OECM Analyst, PO, FPD
Event Flow	• The Program Office will review and update the Project Activity Status data element • The FPD will add or update Project Attachments • The FPD will write the monthly Status Assessment for the project. • The FPD will update the corresponding monthly Status Assessment RYG color indicator for the project. • The FPD will write the monthly Progress Assessment for the project. • The FPD will update the corresponding monthly Progress Assessment RYG color indicator for the project. • The FPD will write the monthly cost variance narrative for the project • The FPD will write the monthly schedule variance narrative for the project • The FPD will write the monthly earned value narrative for the project • The FPD will write the monthly corrective action plan for the project • The FPD will write the monthly list of upcoming events for the project • The FPD will update the “Forecast Month to Achieve Green” for the project • The FPD will update the Forecast Completion Date for the project • The FPD will update the Forecast Total Project Cost for the project • The Program Office will write the monthly Status Assessment for the project. • The Program Office will update the corresponding monthly Status Assessment RYG color indicator for the project. • The Program Office will write the monthly Progress Assessment for the project. • The Program Office will update the corresponding monthly Progress Assessment RYG

Business Process Use Case 115 – Monthly Updates	
Use Case ID Number	UC115
	color indicator for the project. • The OECM Analyst will write the monthly Status Assessment for the project. • The OECM Analyst will update the corresponding monthly Status Assessment RYG color indicator for the project. • The OECM Analyst will write the monthly Progress Assessment for the project. • The OECM Analyst will update the corresponding monthly Progress Assessment RYG color indicator for the project. • The OEM Analyst will update the “Forecast Month to Achieve Green” for the project • The OECM Analyst will update the “Forecast Total Project Cost” for the project • The OECM Analyst will update the Forecast Construction Completion Date at CD-4 • The OECM Analyst will update the OECM Analyst’s Detailed Comments (for ART) • The OECM will write the monthly Overall Assessment for the project. • The OECM will update the corresponding monthly Overall Assessment RYG color indicator for the project. It is expected that EVMS data, such as BCWP, ACWP, BAC will come from the Contractor Project Performance Module
Expected Outcome	Monthly Status Reporting can now be done.
Exception	N/A
Business Process Data Categories	• Project Attributes o Project Identity o Project Mission Statement o Project Scope o Project Responsibility o Project Budget o Project Cost

Business Process Use Case 120 – Approval ofCD-2 (Approve Performance Baseline)	
Use Case ID Number	UC120
Description	Upon approval of the Performance Baseline, the FPD, OECM Analyst and owning Program Office will use PARS II to update project status information and enter the Performance Baseline for the project.
Initiating Actor	Federal Project Director (FPD)
Participating Actors	DOE OECM Analyst
Event Flow	• The FPD will review and revise project data entered at CD-0 and CD-1 • The FPD will add the relevant attachments • The FPD will update the Milestones for the project • The OECM Analyst will enter the final and approved Key Performance Parameters for the Project. • The FPD will enter the name of site and name of the project location. • The FPD will enter the Estimated Completion Date at CD-2 (estimated high mm/dd/yy) • The FPD will enter the original DOE Cost Contingency Amount • The FPD will enter the original DOE Schedule Contingency Amount • The FPD will enter the original DOE Profit/Fee Amount • The OECM Analyst will enter the TPC$ at CD-2 (high estimate). • The OECM Analyst will enter the TPC$ Near Term at CD-2 (high estimate). • The OECM Analyst will update the FPD Certification Status Certification Date, and Certification Level. • The OECM Analyst will add or update the Budget Profile data elements (TBD) • The OECM Analyst will update the Contractor EVMS Certification Status and Certification Date. • The OECM Analyst will enter the BCWS Profile for each month of the life of the project. • It is expected that the Performance Measurement Baseline from the project will come from the Contractor Project Performance module. • The OECM Analyst will enter the Performance Measurement Baseline Change Control Data (version Number, Title, Approving Authority, Approval Date, Reason & Justification, Directed Y/N). • The OECM Analyst will enter the date that the CD was approved, along with the name

Business Process Use Case 120 – Approval ofCD-2 (Approve Performance Baseline)	
Use Case ID Number	UC120
	of the approving authority and the corresponding narrative.
Expected Outcome	The project will be positioned directly after process step CD-2 in PARS II and will be available for analysis and status reporting.
Exception	N/A
Business Process Data Categories	• Project Attributes o Project Identity o Project Mission Statement o Project Scope o Project Responsibility o Project Budget o Project Cost o Project Baseline o Project Baseline Change Control

Business Process Use Case 130 – Approval ofCD-3 (Approve Start of Construction)	
Use Case ID Number	UC130
Description	Upon approval of the Start of Construction, the FPD, OECM Analyst and owning Program Office will use PARS II to make sure that project data is current and will enter the Project Construction Start Date.
Initiating Actor	Federal Project Director (FPD)
Participating Actors	DOE OECM Analyst
Event Flow	• The FPD will review and revise project data entered at CD-0, CD-1, CD-2 • The FPD will add the relevant attachments • The FPD will update the Milestones for the project • The FPD will enter the Estimated Completion Date at CD-3 (estimated high mm/dd/yy) • The OECM Analyst will enter the TPC$ at CD-3 (high estimate). • The OECM Analyst will enter the TPC$ Near Term at CD-3 (high estimate). • The OECM Analyst will update the FPD Certification Status Certification Date, and Certification Level. • The OECM Analyst will update the Contractor EVMS Certification Status and Certification Date. • If required by an approved change to the Performance Baseline, the OECM Analyst will enter the Performance Baseline Change Control Data (version Number, Title, Approving Authority, Approval Date, Reason & Justification, Directed Y/N). • The OECM Analyst will enter the date that the CD was approved, along with the name of the approving authority and the corresponding narrative.
Expected Outcome	The project will be positioned directly after process step CD-3 in PARS II and will be available for analysis and status reporting.
Exception	N/A
Business Process Data Categories	• Project Attributes o Project Identity o Project Mission Statement o Project Scope o Project Responsibility o Project Budget

Business Process Use Case 130 – Approval ofCD-3 (Approve Start of Construction)	
Use Case ID Number	UC130
	o Project Cost o Project Baseline o Project Baseline Change Control

Business Process Use Case 140 – Approval ofCD-4 (Approve Start of Operations of Project Closeout)	
Use Case ID Number	UC140
Description	Upon approval of the Start of Operations or Project Closeout, the FPD, OECM Analyst and owning Program Office will use PARS II to update project status information for the project.
Initiating Actor	Federal Project Director (FPD)
Participating Actors	DOE OECM Analyst
Event Flow	• The FPD will review and revise project data entered at CD-0, CD-1, CD-2, CD-3 • The FPD will add the relevant attachments • The FPD will update the Milestones for the project • The OECM Analyst will update the FPD Certification Status Certification Date, and Certification Level. • The OECM Analyst will update the Contractor EVMS Certification Status and Certification Date. • If required by an approved change to the Performance Baseline, the OECM Analyst will enter the Performance Baseline Change Control Data (version Number, Title, Approving Authority, Approval Date, Reason & Justification, Directed Y/N). • The OECM Analyst will enter the date that the CD was approved, along with the name of the approving authority and the corresponding narrative.
Expected Outcome	The project will be positioned directly after process step CD-4 in PARS II and will be available for analysis and status reporting.
Exception	N/A
Business Process Data Categories	• Project Attributes o Project Identity o Project Mission Statement o Project Scope o Project Responsibility o Project Budget o Project Cost o Project Baseline o Project Baseline Change Control

Business Process Use Case 150 – Development of Performance Measurement Baseline	
Use Case ID Number	UC150
Description	Once a project has passed CD-1 approval, the Performance Measurement Baseline must be constructed by the Contractor and submitted for approval to OECM. OECM applies the necessary program-level information to the project to generate a Performance Measurement Baseline for approval. The purpose is to provide a full data set of Performance Measurement Baseline information to OECM for use in obtaining Performance Measurement Baseline Approval.
Initiating Actors	The Contractor, PO/FPD
Participating Actor	OECM Analyst
Event Flow	• A Project Execution Plan shall be developed for each project. • The Contractor will gather the necessary cost and schedule data for electronic submittal to the PARS II database (see the event flows for the Data Upload Business Process Use Cases). • The PO/FPD will update program-level information for the project as appropriate within the PARSII system. • The OECM Analyst will update additional information necessary to complete the development of the Performance Measurement Baseline. • Project will have a functioning performance management system prior to final Performance Measurement Baseline approval. • OMBE Analyst will validate all Performance Measurement Baselines prior to approval. • Approval of the total project budget request from Congress grants the project CD-2 approval. • Based on the decision of Congress whether or not to approve the PB, OECM will update the project information status accordingly within PARSII.
Expected Outcome	OECM will have a complete Performance Baseline in PARSII, which can be used to generate the necessary supporting documentation for submittal of the PB to Congress. PARSII is now ready for monthly project performance analysis and reporting.
Exception	(See Data Upload Use Cases)

Business Process Use Case 150 – Development of Performance Measurement Baseline	
Use Case ID Number	UC150
Business Process Data Categories	• Critical Decision • Contractor Performance Baseline and Schedule Data (See Data Upload Use Cases) • Key Milestones • Funds Appropriations • Key Performance Parameters • Project Attributes - DOE Site and Project Location • Prime Contractor • Contacts • Certifications • DOE Contingency • Project Risk Logs

Business Process Use Case 160 - Reporting, Analysis, and Publishing	
Use Case ID Number	UC160
Description	Users will access PARSII for reporting and analysis during the various stages of the acquisition life cycle. Data for each project are housed within the database, and can be accessed and utilized for analysis and reporting purposes at the appropriate time. OECM and other user groups will be able to generate reports and to publish them to the PARSII web interface for review by the appropriate stakeholders.
Initiating Actor	DOE OECM Analysts
Participating Actor	DOE OECM, PO, FPD
Event Flow	1. DOE OECM Analysts access PARSII and utilize the reporting capability to generate/publish analysis reports. 2. PO personnel, FPDs, and OECM stakeholders will log onto PARSII to view the published analysis reports.
Expected Outcome	Management personnel at the OECM and PO levels will have analysis reports and views online in PARSII for review.
Exception	N/A
Business Process Data Categories	• Contractor Performance Baseline and Schedule Data (See Data Upload Use Cases) • Key Milestones • Funds Appropriations • Key Performance Parameters • Project Attributes - DOE Site and Project Location • Prime Contractor • Contacts • Certifications • DOE Contingency • Project Risk Logs • Assessments

Business Process Use Case 170 - Performance Baseline Change Proposal	
Use Case ID Number	
Description	Once the project enters CD-3, any change to the Contractor's scope, schedule, and cost must go through the Baseline Change Proposal (BCP) process. The Contractor will gather the necessary BCP data elements for submittal to the PARS II database via the data upload capability (see Data Upload Business Process Use Cases). The purpose is to provide a full data set representing the BCP for approval by OECM.
Initiating Actors	The Contractor, PO/FPD
Participating Actor	DOE OECM
Event Flow	1. The Contractor will gather the necessary BCP data for electronic submittal to the DOE OECM database (see the event flows for the Data Upload Business Process Use Cases). 2. The PO/FPD will update project-level information for the project as appropriate within the PARSII system. 3. OECM will make a determination whether to accept or reject the BCP. 4. OECM will notify the PO of its decision.
Expected Outcome	Approval or rejection of the BCP by OECM.
Exception	(See Data Upload Use Cases)
Business Process Data Categories	• Contractor Performance Baseline and Schedule Data (See Data Upload Use Cases) • Key Milestones • Funds Appropriations • Key Performance Parameters • Project Attributes - DOE Site and Project Location • Prime Contractor • Contacts • Certifications • DOE Contingency • Project Risk Logs

Business Process Use Case 180 - Administrative Data	
Use Case ID Number	UC180
Description	Contacts, Security/Access Rights, Project Attributes, and Certification Levels must be maintained and up to date at all times throughout the agency. OECM Administrative personnel with the appropriate role and access rights will have the ability to log onto the system to update the appropriate information. Once updated within the system, users at all levels will have respective access to the updated information.
Initiating Actor	OECM Admin
Participating Actor	N/A
Event Flow	1. OECM Administrator logs into PARSII and inputs/updates the appropriate data elements for each of the administrative data categories listed below.
Expected Outcome	Administrative information will be up to date in PARSII agency-wide.
Exception	N/A
Business Process Data Categories	• Contacts • Security/Access Rights • Project Attributes • FPD Certification Levels • Contractor Certifications

14 APPENDICES

Reference material for the PARS II project is contained in this section.

14.1 Acronyms

The acronyms listed below were sourced from DOE Guide 413.3-10, "Earned Value Management System", May 6, 2008

1 AC actual cost
2 ACWP actual cost of work performed
3 ANSI American National Standards Institute
4 AUW authorized un-priced work
5 BAC budget at completion
6 BCWP budgeted cost for work performed
7 BCWS budgeted cost for work scheduled
8 BR budget remaining
9 CA control account
10 CAM control account manager
11 CAP corrective action plan
12 CAR corrective action request
13 CBB contract budget base
14 CD critical decision
15 CIO continuous improvement opportunity
16 CPI cost performance index
17 CPR contract performance report cum cumulative
18 CV cost variance
19 CPR contract performance report
20 DCAA Defense Contract Audit Agency
21 DoD Department of Defense
22 DOE Department of Energy
23 EAC estimate at completion
24 ETC estimate to complete
25 EIA Electronic Industries Alliance

EIR external independent review
EV earned value
EVMS earned value management system
FAR Federal Acquisition Regulation
FPD federal project director
G guide
GAO Government Accountability Office
IG Inspector General
IPR independent project review
IPT integrated project team
LRE latest revised estimate (at completion)
M million or milestone
MR management reserve
NDIA National Defense Industrial Association
order
OBS organizational breakdown structure
OECM Office of Engineering and
Construction Management
OMB Office of Management and Budget
PARS Project Assessment and Reporting System
PB performance baseline
PEP project execution plan
PMB performance measurement baseline
PMSC Program Management Systems Committee
POC point of contact
PP planning package
PSO Program Secretarial Officer
PV planned value
RA readiness assessment
RAM responsibility assignment matrix
SLPP summary level planning package
SPI schedule performance index
SV schedule variance
TCPI to complete performance index

60 TPC total project cost
61 UB undistributed budget
62 VAC variance at completion
63 WBS work breakdown structure
64 WP work package
65 WR work remaining

14.2 DOE Program Office Codes

The table below contains the list of DOE Program Offices, as sourced from the OECM ART database on August 25, 2008. At a meeting on August 28, 2008, John Makepeace (OECM) stated that there could be additional projects from other Program Offices in the future (other than the Program Offices listed below).

DOE Program Offices

Program Office Acronym	Program Office Description
EE	Office of Electricity Efficiency & Renewable Energy
EM-C	Office of Environmental Management – clean-up
EM-L	Office of Environmental Management - line item/non-clean-up project
FE	Office of Fossil Energy
NA-D	National Nuclear Security Administration - defense program
NA-N	National Nuclear Security Administration - nuclear nonproliferation
NE	Office of Nuclear Energy
RW	Office of Civilian Radioactive Waste Management
SC	Office of Science
WAPA	Western Area Power Administration

14.3 DOE Site Names

The table below contains the list of site contractor names, as sources from the OECM ART database on August 25, 2008.

DOE Sites

	Site Acronym	Site Name	Site State	Site Program Office
1	ANL	Argonne National Laboratory	IL	SC, EM
2	Ashtabula	Ashtabula Closure Project	OH	EM
3	BNL	Brookhaven National Laboratory	NY	SC, EM
4	Carlsbad	Carlsbad-WIPP	NM	EM
5	ETEC	Energy Technology Engineering Center	CA	EM
6	ETTP	East Tennessee Technology Park	TN	EM
7	Fernald	Fernald	OH	EM
8	FNAL	Fermi National Accelerator Laboratory	IL	SC
9	INL	Idaho National Laboratory	ID	EM
10	KAPL	Knolls Atomic Power Laboratory	NY	NA, EM
11	KCP	Kansas City Plant		NA
12	LANL	Los Alamos National Laboratory		NA
13	LBNL	Lawrence Berkeley National Laboratory	CA	SC
14	LLNL	Lawrence Livermore National Laboratory		NA
15	Miamisburg	Miamisburg	OH	EM
16	Moab	Moab	UT	EM
17	NETL	National Energy Technology Laboratory	WV, PA	FE
18	Nevada Offsite		NV	EM
19	NREL	National Renewable Energy Laboratory	CO	EE
20	NTS	Nevada Test Site		NA
21	Oak Ridge	Oak Ridge	TN	EM
22	ORNL	Oak Ridge National Laboratory	TN	SC

	Site Acronym	Site Name	Site State	Site Program Office
23	ORP	Office of River Protection	WA	EM
24	Paducah	Paducah Gaseous Diffusion Plant	KY	EM
25	Pantex	Pantex Plant		NA
26	PNNL	Pacific Northwest National Laboratory	WA	SC
27	Portsmouth	Portsmouth Gaseous Diffusion Plant	OH	EM
28	PPPL	Princeton Plasma Physics Laboratory	NJ	SC
29	PPPO	Portsmouth Paducah Project Office	OH	EM
30	Richland	Richland	WA	EM
31	Rochester			
32	Russia			NA
33	SEFOR – Arkansas	Southwest Experimental Fast Oxide Reactor – Arkansas	AR	EM
34	SLAC	Stanford Linear Accelerator Center	CA	SC, EM
35	SNL	Sandia National Laboratories		NA
36	SRS	Savannah River Site		EM, NA
37	TBD			
38	TJNAF	Thomas Jefferson National Accelerator Facility	VA	SC
39	West Valley	West Valley Demonstration Project	NY	EM
40	Y-12	Y-12 National Security Complex		NA
41	Yucca Mountain	Yucca Mountain	NV	RW

14.4 User Group Member Names – OECM Analysts

The names of OECM Analysts are listed below (as of August, 2008).

1. Huizenga, Brian
2. Kong, Brian
3. Hicks, Joe
4. White, John
5. Frank, Mel
6. Sanchez, Ruben
7. Rossi, Steve

14.5 Users Group Member Names – Program Office Analysts

The list of Program Office Managers and Program Office representatives will be placed here.

- TBD

14.6 User Group Member Names - Federal Project Directors

The table below contains a list of Federal Project Directors (FPD) as sourced from the OECM ART system on August 25, 2008. At a meeting on August 28, 2008 Robert Raines (OECM) stated that not all of the FPDs listed below will use PARS II because many of the FPDs listed here are stationed at Headquarters.

DOE Federal Project Directors

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
1	Abdul, Wahed	EM	2	509-438-0455	wahed_abdul@orp.doe.gov
2	Adams, Vincent	EM	3	301-903-1864	vincent.adams@em.doe.gov
3	Amezquita, Jesus M.	NNSA	3	505-667-2268	jamezquita@doeal.gov
4	Amirmokri, Homi N.	NE	1	301-903-7728	homi.amirmokri@nuclear.energy.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
5	Appenzeller-Wing, Janet	EM	2	702-295-0461	wing@nv.doe.gov
6	Arakawa, David K.	SC	2	865-576-6811	arakawadk@ornl.gov
7	Arenaz, Mark	EM	0	208-526-1510	arenazmr@id.doe.gov
8	Arthur III, William John	OCRWM	4		
9	Bangerter Jr., Robert M.	NNSA	3	702-295-7340	bangerter@nv.doe.gov
10	Barnes, Donald J.	NE	1	301-903-7217	donald.barnes@nuclear.energy.gov
11	Barrow, Clayton W.	NNSA	3	702-295-7960	barrow@nv.doe.gov
12	Basabilvazo, George T.	EM	2	575-234-8103	george.basabilvazo@wipp.ws
13	Bass, W. Gregrory	NE	2	208-533-7184	basswg@id.doe.gov
14	Bazzell, Kevin D.	EM	3	650-926-2513	kevin.bazzell@emcbc.doe.gov
15	Beard, Anna V.	NNSA	3	865-241-8326	beardav@yso.doe.gov
16	Belencan, Helen L.	EM	1	803-952-8696	helen.belencan@srs.gov
17	Berndsen Jr., Gerard B.	FE	3	504-734-4044	gerard.berndsen@spr.doe.gov
18	Blodgett, James	NNSA	1		
19	Boda, Joseph O.	NE	1	301-903-7123	joseph.boda@nuclear.energy.gov
20	Boger, John	NE	1	301-903-4495	john.boger@hq.doe.gov
21	Bohne, William A.	NE	1	301-903-4474	william.bohne@nuclear.energy.gov
22	Boron, David J.	EE	1	202-586-0080	david.boron@hq.doe.gov
23	Boston, Robert D.	NE	1	208-533-4250	bostonrd@id.doe.gov
24	Brinker, Samuel	NNSA	3	925-422-0710	samuel.brinker@oak.doe.gov
25	Butler, Michael	EM	2		
26	Cabble, Kevin J.	EM	1	702-295-5000	cabble@nv.doe.gov
27	Cahill, William J.	SC	3	865-241-4830	cahillwj@ornl.gov
28	Cairns-Gallimore, Dirk A.	NE	1	301-903-3332	dirk.cairns-gallimore@nuclear.energy.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
29	Campus, Nathan	FE	1	412-386-5147	campus@netl.doe.gov
30	Cannon, Scott C.	NNSA	4	865-574-2942	cannonsc@y12.doe.gov
31	Carilli, John T.	EM	1	702-295-0672	carilli@nv.doe.gov
32	Carolan, Pepin T.	SC	2	630-840-2227	pepin.carolan@ch.doe.gov
33	Carroll, Wade P.	NE	1	301-903-3456	wade.carroll@nuclear.energy.gov
34	Case, Joel	EM	3	208-526-6795	casejt@id.doe.gov
35	Catoe, Ronnie	NNSA	3		
36	Chacey, Kenneth A.	NNSA	4	803-952-5859	ken.chacey@nnsa.srs.gov
37	Charboneau, Briant	EM	3	509-373-6137	briant_l_charboneau@rl.gov
38	Charboneau, Stacy	EM	3	509-373-3841	stacy_l_charboneau@rl.gov
39	Christenson, Dale E.	NNSA	3	865-574-3964	christensode@yso.doe.gov
40	Clark, Harold E.	SC	2	865-576-0823	hkc@ornl.gov
41	Collette, Gregory	EE	1	303-275-4734	greg.collette@go.doe.gov
42	Colton, Eugene	NNSA	3	505-667-4241	ecolton@doeal.gov
43	Conner, Julie E.	NE	1	208-526-9503	connerje@id.doe.gov
44	Cook, Trevor	NE	0	301-903-7046	trevor.cook@nuclear.energy.gov
45	Cooper, James R.	EM	2	208-526-5698	cooperjr@id.doe.gov
46	Craun, Richard L.	OCRWM	2	702-794-1488	richard.craun@ymp.gov
47	Cremona, Salvatore M.	NNSA	3	301-903-7726	mike.cremona@nnsa.doe.gov
48	Crescenzo, Frank J.	SC	0	631-344-3433	crescenz@bnl.gov
49	Cummings, Rod	EM	1	301-903-7606	rodney.cummings@em.doe.gov
50	Curtis, Sabine T.	NNSA	1	702-295-0542	curtis@nv.doe.gov
51	Dailey, Richard	EM	1		
52	De La Garza, Jorge C.	OCRWM	1	702-794-1354	jc_delagarza@ymp.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
53	DeClue, Scott	EM	1	803-208-1231	scott.declue@srs.gov
54	Di Sanza, E. Frank	EM	2	702-295-5855	disanza@nv.doe.gov
55	Dietzel, Dale J.	SC	1	630-252-2555	dale.dietzel@ch.doe.gov
56	Dowicki, John	NE	1	301-903-7729	john.dowicki@hq.doe.gov
57	Drahushak-Crow, Roselle	EE	1	303-275-4775	roselle.drahushak-crow@go.doe.gov
58	Drury, Mark A.	NNSA	2	816-997-4798	mark.drury@nnsa.doe.gov
59	Elias, Wayne	FE	2	504-734-4397	wayne.elias@spr.doe.gov
60	Ely, Lowell V.	NNSA	4	301-903-6821	lowell.ely@nnsa.doe.gov
61	Eng, Joseph	SC	2	631-344-7982	jeng@bnl.gov
62	Erickson, Leif	EM	4	509-376-7272	leif_erickson@rl.gov
63	Eschenberg, John R.	EM	4	509-376-3681	john_r_eschenberg@orp.doe.gov
64	Estrada, Joe G.	NNSA	2	505-845-5326	jestrada@doeal.gov
65	Evelo, Wayne	NNSA	3	505-845-5501	wevelo@doeal.gov
66	Ewart, Michelle M.	EM	2	803-952-8059	michelle.ewart@srs.gov
67	Farabee, Oliver A.	EM	3	509-376-8089	oliver_a_al_farabee@rl.gov
68	Feinberg, Steven B.	EM	3	518-395-4580	steven.feinberg@spru.doe.gov
69	Fong, Stephen C.	NNSA	3	505-665-5534	sfong@doeal.gov
70	French, Mark S.	EM	4	509-373-9863	mark_s_french@rl.gov
71	Frost III, Edward N.	FE	1	504-734-4697	edwards.frost@spr.doe.gov
72	Frye, Steven M.	NNSA	2	505-667-2524	sfrye@doeal.gov
73	Furlong, Peter T.	EM	3	509-438-0472	peter_t_furlong@orp.doe.gov
74	Gabel, Andrew D.	SC	2	630-252-2213	andrew.gabel@ch.doe.gov
75	Gadbury, Donald Casey	EM	2	575-234-7372	casey.gadbury@wipp.ws
76	Gallegos, John A.	NNSA	2	505-665-8439	jagallegos@doeal.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
77	Garcia-Sanchez, Deborah A.	NNSA	2	505-845-5460	dgarcia-sanchez@doeal.gov
78	Giffith, Andrew	NE	0	301-903-7120	andrew.griffith@nuclear.energy.gov
79	Gines, Frank	SC	2	630-252-4182	frank.gines@ch.doe.gov
80	Ginn, F. Lester	SC	2	865-576-7317	ginnfl@ornl.gov
81	Giove III, Joseph	FE	1	301-903-4130	joseph.giove@hq.doe.gov
82	Girard, Guy A.	EM	2	208-526-8838	girardga@id.doe.gov
83	Golden, Bobby G.	NNSA	2	702-295-2353	golden@nv.doe.gov
84	Gollakota, Sai V.	FE	1	304-285-4151	sai.gollakota@sa.netl.doe.gov
85	Golub, Sal	NE	0	301-903-1636	sal.golub@nuclear.energy.gov
86	Gorsuch, Goeffrey	EM	2	716-942-4674	geoffrey.g.gorsuch@wv.doe.gov
87	Gound, Dennis E.	SC	1	865-574-8402	goundde@ornl.gov
88	Graham, Matt E.	EE	2	303-275-4766	matt.graham@go.doe.gov
89	Gregory, David R.	NNSA	3	505-667-5808	dgregory@doeal.gov
90	Griego, Juan L.	NNSA	3	505-665-6439	jgriego@doeal.gov
91	Grooms, Kerry M.	RW	1		
92	Guelker, Johnnie F.	NNSA	3	806-477-3183	jguelker@pantex.doe.gov
93	Guercia, Rudolph F.	EM	0	509-376-0726	rudolph_f_rudy_guercia@rl.gov
94	Gunter, H. Allen	EM	2	803-952-9729	h.gunter@srs.gov
95	Hain, Kathleen	EM	0	208-526-4392	hainke@id.doe.gov
96	Haley, Timothy A.	NNSA	3	301-903-3581	timothy.haley@nnsa.doe.gov
97	Hamby, Robert	NNSA	2		
98	Hansen, Charles	EM	4		
99	Harder, Dawn	NNSA	3	505-845-6314	dharder@doeal.gov
100	Harlow, Scott E.	NE	1	301-903-3352	scott.harlow@hq.doe.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
101	Harmon, B. Alan	NE	1	301-903-1167	alan.harmon@hq.doe.gov
102	Harp, Benton J.	EM	2	509-376-1462	benton_j_ben_harp@orp.doe.gov
103	Harris, Montrell D.	NNSA	3		
104	Harvey, Angela	SC	0	630-252-2696	angela.harvey@ch.doe.gov
105	Hawkins, James	SC	0	301-903-8437	james.hawkins@science.doe.gov
106	Henderson, A. David	NE	1	208-526-2497	henderad@id.doe.gov
107	Henderson, Chad S.	SC	2	509-372-4675	chad.henderson@pnso.science.doe.gov
108	Henderson, Dwight R.	NNSA	2	806-477-5256	dhenders@pantex.doe.gov
109	Herrin, David S.	NE	2	208-526-3013	herrinds@id.doe.gov
110	Heston, Susan L.	SC	2	630-252-2381	susan.heston@ch.doe.gov
111	Hintze, Douglas E.	EM	3	803-208-6076	doug.hintze@srs.gov
112	Hollrith, James	RW	0	702-794-5573	james_holrith@ymp.gov
113	Holtzapple, Claire S.	NNSA	2	925-422-0670	claire.holtzapple@oak.doe.gov
114	Howard, Jack L.	SC	0	865-576-5982	howardjl@oro.doe.gov
115	Huber, Wolfe P.	FE	1	412-386-5747	wolfe.huber@netl.doe.gov
116	Hutmaker, Matthew A.	NE	1	301-903-3921	matthew.hutmaker@nuclear.energy.gov
117	Indelicato, Anthony J.	SC	1	609-243-3703	aindelicato@pppl.gov
118	Iorii, Vincent F.	OCRWM	2	702-794-1470	vince_iorii@notes.ymp.gov
119	Jackson, Timothy J.	EM	3	513-246-0077	tj.jackson@emcbc.doe.gov
120	Jensen, Nolan R.	NE	1	208-526-5793	jensennr@id.doe.gov
121	Jines, Alan	NE	0	208-526-7524	jinesa@id.doe.gov
122	Johnescu, Katherine R.	SC	2	510-486-6342	katherine.johnescu@bso.science.doe.gov
123	Johnson Jr., Thomas	EM	1	818-466-8959	thomas.johnson@emcbc.doe.gov
124	Johnson, David	FE	0	202-586-4733	david.johnon@hq.doe.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
125	Jones, John B.	EM	1	702-295-0532	jonesjb@nv.doe.gov
126	Judice, Todd M.	FE	1	504-734-4765	todd.judice@spr.doe.gov
127	Kanosky, Joseph	FE	1	304-285-4649	jkanos@netl.doe.gov
128	Kellar, Kenneth A.	NE	2	301-903-9420	kenneth.kellar@hq.doe.gov
129	Klee, Carl R.	NE	1	301-903-2964	carl.klee@hq.doe.gov
130	Knerr, Reinhard M.	EM	0	270-441-6825	reinhard.knerr@lex.doe.gov
131	Ko, Paul M.	NNSA	2	925-423-7729	paul.ko@oak.doe.gov
132	Kong, Robert	EM	1	925-423-6790	robert.kong@oak.doe.gov
133	Korynta, Richard D.	SC	2	757-269-7145	korynta@jlab.org
134	Kozlowski, David R.	EM	3	859-219-4002	david.kozlowski@lex.doe.gov
135	Krupa, Dana K.	MA	2		
136	Laforest Jr, James R.	NNSA	2	865-241-9744	laforestjr@yso.doe.gov
137	Lanigan, Carl A.	EM	3	803-208-3286	carl.lanigan@srs.gov
138	Larson, Ned B.	OCRWM	4	702-794-1454	ned.larson@rw.doe.gov
139	Lattin, William C.	EM	3	208-526-1508	lattinwc@id.doe.gov
140	Le-Doux, Herman C.	NNSA	4	505-665-8432	hledoux@doeal.gov
141	Lee, Hanley W.	SC	3	650-926-3207	hanley.lee@sso.science.doe.gov
142	Lehman, Rodney A.	NNSA	2	301-903-6104	rodney.lehman@nnsa.doe.gov
143	Lesica, Susan M.	NE	1	30-903-8755	sue.lesica@nuclear.energy.gov
144	Lilly III, M. Judson	EM	2	740-897-2246	jud.lilly@lex.doe.gov
145	Ling, Lawrence T.	EM	2	803-208-6076	l.ling@srs.gov
146	Lockhart, Frasier R.	EM	4	303-236-3667	frazer.lockhart@em.doe.gov
147	Loo, Ping K.	NNSA	1	925-423-1369	stephen.loo@oak.doe.gov
148	Lopez-Ferre, Mildred S.	SC	4	865-576-8018	ferrems@oro.doe.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
149	Loucks, Vicki D.	NNSA	1	505-667-6819	vloucks@doeal.gov
150	Luke, David J.	SC	1	757-269-7139	luke@jlab.org
151	Lundgaard, Eric L.	OCRWM	1	702-794-5465	eric_lundgaard@ymp.gov
152	Lutha, Ronald J.	SC	3	630-252-2366	ronald.lutha@ch.doe.gov
153	Luu, Catherine C.	EM	1		
154	Lyles, Chris J.	EM	1	806-477-7132	clyles@pantex.doe.gov
155	Ma, Steven T.	NNSA	3	925-422-0804	steve.ma@oak.doe.gov
156	Makiel, Jeffrey	SC	2	609-243-3721	jmakiel@pppl.gov
157	Mallin, John R.	NNSA	1	702-295-1770	mallin@nv.doe.gov
158	Malmo, James A.	NE	1	208-526-2152	malmoja@id.doe.gov
159	Malphurs, Paul R.	FE	1	504-734-4302	paul.malphurs@spr.doe.gov
160	Marks, Margaret	EM	1	513-246-0473	margaret.marks@emcbc.doe.gov
161	Martin, Mary E.	NNSA	2	202-586-9438	mary.martin@nnsa.doe.gov
162	Martinez-Woodson, Michelle	NNSA	1	505-665-6332	mtz-w@doeal.gov
163	Mattlin, Ellen M.	EM	0	509-376-2385	ellen_m_mattlin@rl.gov
164	Maul, Lisa M.	EM	1		
165	May, Joseph J.	SC	3	757-269-7149	jjmay@jlab.org
166	McClellan, Gordon R.	NE	2	208-526-5379	mcclelgr@id.doe.gov
167	McCormick, Matthew S.	EM	4	509-373-9971	matthew_s_mccormick@rl.gov
168	McCracken, Stephen H.	EM	4	865-576-0742	mccrackensh@oro.doe.gov
169	McCune, Mary C.	NE	1	301-903-8152	mary.mccune@nuclear.energy.gov
170	McGuire, Patrick W.	EM	2	803-208-3927	patrick.mcguire@srs.gov
171	McMillan, William H.	EM	0		
172	Meehan, Richard W.	NNSA	1	865-576-2598	meehanrw@yso.doe.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
173	Metzler, Donald	EM	4	970-257-2115	donald.metzler@gjem.doe.gov
174	Miller Jr., Lawrence E.	NE	1	301-903-3109	lawrence.miller@hq.doe.gov
175	Mitchell, Michael T.	NNSA	1	301-903-3085	michael.mitchell@nnsa.doe.gov
176	Mueller, Lisa M.	NNSA	1	702-295-7410	muellerl@nv.doe.gov
177	Muna, Roke D.	NNSA	3	505-845-6165	rmuna@doeal.gov
178	Narain, Nand	SC	0	631-344-5435	narain@bnl.gov
179	Nash, Adrienne L.	NNSA	1	505-665-5026	anash@doeal.gov
180	Nelson, Lloyd	EM	1	631-344-5225	lnelson@bnl.gov
181	Newdorf, Marty	NNSA	3		
182	Nicholson, Lisa K.	FE	2	504-734-4514	lisa.nicholson@spr.doe.gov
183	Norte, Jeanette M.	NNSA	4	505-845-4435	jnorte@doeal.gov
184	Norton, Joanne F.	EM	1	509-376-6202	joanne_f_norton@rl.gov
185	Noyes, Delmar L.	EM	3	509-376-5166	delmar_l_noyes@orp.doe.gov
186	Nunz, Jaimie G.	EM	3	505-667-0573	jnunz@doeal.gov
187	O'Brien, John C.	FE	1	504-734-4560	john.o'brien@spr.doe.gov
188	Olsen, Gary	EM	0	509-438-4707	gary_b_olsen@orp.doe.gov
189	Ooten, Ronald T.	NNSA	3		
190	Ortiz, William P.	NNSA	3	505-845-5201	wortiz@doeal.gov
191	Owendoff, James M.	EM	4	202-586-8670	james.owendoff@hq.doe.gov
192	Pak, Paul M.	EM	3	509-376-4798	paul_m_pak@rl.gov
193	Palestina, Nicholas	FE	2	504-734-4769	nicholas.palestina@spr.doe.gov
194	Paliulionis, Jurgis George	SC	2	630-252-2724	jurgis.paliulionis@ch.doe.gov
195	Pantaleo Jr., John	NE	1	301-903-2525	john.pantaleo@hq.doe.gov
196	Parsons, Mark	SC	0	631-344-7978	parsons@bnl.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
197	Patel, Hemant S.	SC	1	510-486-6412	hemant.patel@bso.science.doe.gov
198	Patel, Narendra A.	NNSA	2	301-903-8097	narendra.patel@nnsa.doe.gov
199	Penny, Gail E.	SC	2	631-344-4363	gpenny@bnl.gov
200	Perez, Donna M.	EM	4	865-576-8625	perezdm@oro.doe.gov
201	Peters, Harry E.	NNSA	4	865-576-6812	petershe@yso.doe.gov
202	Pfaff, Robert J.	OCRWM	1	702-794-1391	robert_pfaff@notes.ymp.gov
203	Pfister, Donald A.	EM	2	513-246-0063	don.pfister@emcbc.doe.gov
204	Philp, Paul R.	SC	2	630-840-4481	paul.philp@ch.doe.gov
205	Pidlusky, Adrian B.	NNSA	1	202-586-7227	adrian.pidlusky@nnsa.doe.gov
206	Pitonak, Gregory E.	SC	3	609-243-3713	gpitonak@pppl.gov
207	Pizzeck, Marc A.	FE	1	504-734-4624	marc.pizzeck@spr.doe.gov
208	Polk, Phillip (Tony)	EM	3	803-208-6483	tony.polk@srs.gov
209	Price, Lester K.	SC	4		
210	Provencher, Richard B.	EM	4	208-526-7300	provenrb@id.doe.gov
211	Quern, James M.	FE	2	504-734-4458	james.quern@spr.doe.gov
212	Rael, George J.	SC	0	505-606-0397	grael@doeal.gov
213	Rai, Gulshan	SC	1	301-903-4702	gulshan.rai@science.doe.gov
214	Ramsey, Clay H.	NNSA	4	803-952-4283	clay.ramsey@nnsa.srs.gov
215	Rawlins, Mary H.	SC	1	865-576-4507	rawlinsmh@ornl.gov
216	Reising, Johnny W.	EM	3	513-648-3139	johnny.reising@lm.doe.gov
217	Reister, Richard A.	NE	1	301-903-0234	richard.reister@nuclear.energy.gov
218	Richardson, Rebecca L.	NE	1	301-903-0023	rebecca.richardson@hq.doe.gov
219	Rimando Jr., Rodrigo V.	EM	3	803-208-8109	rodrigo.rimando@em.doe.gov
220	Riner, Gary L.	EM	0	865-241-3498	RinerG@oro.doe.gov

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221	Roberson, Jeffry L.	NNSA	3	301-903-8026	jeffry.roberson@nnsa.doe.gov
222	Roberts, D. Michael	NNSA	3	816-997-3908	mike.roberts@nnsa.doe.gov
223	Robinson, Thomas P.	EE	1	202-586-0139	thomas.robinson@hq.doe.gov
224	Romine, Larry D.	EM	4	509-376-4747	larry_d_romine@rl.gov
225	Samuelson, Scott L.	NNSA	4	925-423-0593	scott.samuelson@oak.doe.gov
226	Sattler III, John M.	EM	3	513-246-0603	john.sattler@emcbc.doe.gov
227	Savage, Carter D.	NE	1	202-586-6692	buzz.savage@nuclear.energy.gov
228	Savnik, Barry A.	SC	2	510-486-6108	barry.savnik@bso.science.doe.gov
229	Schassburger, Richard J.	EM	2	510-637-1617	richard.schassburger@oak.doe.gov
230	Schinnerl-Martin, Anita C.	NNSA	2	925-422-1141	anita.martin@oak.doe.gov
231	Schmidhofer, Dirk	NNSA	2	702-295-0159	schmidhofer@nv.doe.gov
232	Schmidt, Robert E.	NNSA	3	816-997-3922	bob.schmidt@nnsa.doe.gov
233	Schultz, Michael	NE	2		
234	Schuppner, Suibel	NE	1	301-903-1652	suibel.schuppner@nuclear.energy.gov
235	Schwartz, Frank	NE	0	208-526-6390	schwarfg@id.doe.gov
236	Sethi, Arun	NE	0	916-353-4452	asethi@wapa.gov
237	Shadley, Jeffery	NE	1	208-526-5005	shadlejt@id.doe.gov
238	Shaw, Mark	EM	0		
239	Sheppard, John D.	EM	2	270-441-6804	john.sheppard@lex.doe.gov
240	Shine, John M.	EM	1	740-897-2853	john.shine@lex.doe.gov
241	Singh, Bhupinder P.	NE	1	301-903-3741	bhupinder.singh@nuclear.energy.gov
242	Sink, Carl J.	NE	1	301-903-5131	carl.sink@nuclear.energy.gov
243	Smith, Kevin W.	NNSA	2	865-574-5620	smithkw@yso.doe.gov
244	Smith, Lloyd	NNSA	3		

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245	Smith, Thomas Z.	EM	4	803-641-8982	zack.smith@srs.gov
246	Snyder, Roger E.	NNSA	3	505-667-5105	rsnyder@.doeal.gov
247	Sorrell, Steven W.	NE	1	208-526-1986	sorrelsw@id.doe.gov
248	Spader, William F.	EM	4		
249	Spears, Terrel J.	EM	4	803-208-6072	terrel.spears@srs.gov
250	Stair, James R.	NNSA	2	301-903-7768	james.stair@nnsa.doe.gov
251	Staples, Parrish	NNSA	0	202-586-4042	parrish.staples@nnsa.doe.gov
252	Staubly, Ronald K.	LM	1	304-285-4991	ron.staubly@lm.doe.gov
253	Stephens, Thomas E.	NNSA	2	702-295-2432	stephenst@nv.doe.gov
254	Stout, Daniel	NE	0	301-903-3070	daniel.stout@nuclear.energy.gov
255	Stumbo, Philip I.	NE	1	865-576-1828	stumbopi@oro.doe.gov
256	Sullivan, Daniel W.	EM	1	716-942-4016	daniel.w.sullivan@wv.doe.gov
257	Sy, Anthony R.	NNSA	1	510-637-1976	tony.sy@oak.doe.gov
258	Taylor, Amy	NE	1		
259	Taylor, William J.	EM	4	509-376-7851	William_J_Taylor@orp.doe.gov
260	TBD		0		
261	Teynor, Thomas K.	EM	0	509-376-6363	Thomas_K_Teynor@rl.gov
262	Thomas, Fabian D.	NNSA	2	806-477-3152	fthomas@pantex.doe.gov
263	Thompson, Eric M.	NNSA	1	865-241-2775	thompsone1@yso.doe.gov
264	Thompson, Jr., James F.	EM	3		
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266	Thorpe, Richard K.	NNSA	2	301-903-3805	richard.thorpe@nnsa.doe.gov
267	Tilly III, W. Paul	FE	1	504-734-4308	paul.tilly@spr.doe.gov
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270	Trollinger, Everett A.	NNSA	3	505-667-0281	etrollinger@doeal.gov
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272	Trujillo, Ivan E.	NNSA	2	505-667-4664	itrujillo@doeal.gov
273	Turner, Kathy	SC	0	301-903-1759	kathy.turner@science.doe.gov
274	Valdez, Isaac M.	NNSA	3	505-664-0285	imvaldez@doeal.gov
275	Valle, Evaristo Jose	SC	2	650-926-4552	ev.valle@sso.science.doe.gov
276	Van Camp, Scott G.	EM	2	301-903-6755	vancamsg@hq.doe.gov
277	Vero, Thomas J.	EM	2	716-942-2772	thomas.vero@wv.doe.gov
278	Versluis, Robert M.	NE	1	301-903-1890	rob.versluis@nuclear.energy.gov
279	Vick, Matthew A.	NE	1	740-897-2089	vickm@oro.doe.gov
280	Vranicar, Russell J.	EM	0	740-897-5511	vranicarr@oro.doe.gov
281	Wade, James R.	NE	1	208-526-6876	wadejr@id.doe.gov
282	Warren, Russell Neal	SC	2	509-372-4009	russell.warren@pnso.science.doe.gov
283	Weber, Matthew J.	NNSA	2	505-667-4075	mweber@doeal.gov
284	Webster, Stephen L.	SC	2	630-840-2130	stephen.webster@ch.doe.gov
285	Whitacre, Thomas J.	NNSA	3	505-665-5042	twhitacre@doeal.gov
286	Whitaker, Wade C.	EM	2	803-952-7760	wade.whitaker@srs.gov
287	White, Frank L.	NNSA	3	505-665-0172	fwhite@doeal.gov
288	Wieczenski, Donald E.	FE	2	412-386-6056	wieczens@netl.doe.gov
289	Wilkerson, Laura Ortiz	EM	0	865-576-9900	wilkersonlo@oro.doe.gov
290	Willard, Diane D.	FE	1	504-734-4170	diane.willard@spr.doe.gov
291	Williams, Barry N.	NNSA	3		
292	Wong, Phillip W.	EM	1	925-422-0765	phil.wong@oak.doe.gov

	FPD Name	FPD Program Office	FPD PMCDP Certification Level	FPD Telephone	FPD Email Address
293	Worker, Andrew S.	NNSA	1	505-606-0787	aworker@doeal.gov
294	Worley, Michael	NE	1	301-903-3321	michael.worley@nuclear.energy.gov
295	Wu, Chuan-Fu	EM	4	202-586-4166	chuan-fu.wu@hq.doe.gov
296	Wyka, Theodore A.	NNSA	1	202-586-3519	theodore.wyka@nnsa.doe.gov
297	Yankeelov III, John A.	NE	1	208-526-7049	yankeeja@id.doe.gov
298	Yip, Warren J.	SC	2	510-486-4297	warren.yip@bso.science.doe.gov
299	Yoon, Won S.	NE	1	301-903-5634	won.yoon@nuclear.energy.gov
300	Zahora, Kenneth R.	NNSA	3	925-422-0740	ken.zahora@oak.doe.gov
301	Ziemianski, Edward J.	EM	2	208-526-2400	ziemiaej@id.doe.gov
302	Zimmerman, John P.	EM	3	859-219-4017	jack.zimmerman@lex.doe.gov

14.7 User Group Member Names - Contractor Company Names

The table below contains a list of site contractors, as sourced from the OECM ART database on August 25, 2008. The site contractors listed in the table below will use the PARS system.

DOE Site Contractors

	Contractor Acronym	Contractor Name	Contractor EVMS Status
1	ARC	Accelerated Remediation Company, LLC	no review
2	ARC & WGI	Accelerated Remediation Company, LLC & Washington Group International, Inc.	no review & no review
3	B&W Pantex	B&W Pantex, LLC	Certified
4	BBWI	Bechtel B&W Idaho, LLC	no review
5	BEA	Battelle Energy Alliance	no review
6	BJC (Oak Ridge)	Bechtel Jacobs Co., LLC (Oak Ridge)	Certified

	Contractor Acronym	Contractor Name	Contractor EVMS Status
7	BJC (Paducah)	Bechtel Jacobs Co., LLC (Paducah)	no review
8	BJC/EnergyX	Bechtel Jacobs Co., LLC (Oak Ridge) & EnergyX	certified & no review
9	BMI	Battelle Memorial Institute	Certified
10	BNA	Boeing North America	Certified
11	BNI (ORP)	Bechtel National Inc. (ORP)	Certified
12	BSA	Brookhaven Science Associates, LLC	in-review
13	BSC	Bechtel SAIC Co., LLC	Certified
14	BWXT Y-12	BWXT Y-12, LLC	Certified
15	CH2M Hill (Miamisburg)		no review
16	CHG	CH2M-Hill Hanford Group, Inc.	Certified
17	CHM	CH2M Hill Mound, Inc.	no review
18	CWI (INL)	CH2M-WG Idaho, LLC (INL)	Certified
19	CWI (KAPL)		Planning
20	EnergyX	EnergyX	no review
21	ESFS	Energy Solutions Federal Services, Inc.	in-review
22	ESFS/S&KA		in-review
23	Fluor Fernald	Fluor Fernald, Inc.	no review
24	Fluor Hanford	Fluor Hanford, Inc.	Certified
25	Foster Wheeler	Foster Wheeler	no review
26	FRA	Fermi Research Alliance, LLC	in-review
27	HFMT	Honeywell Federal Manufacturing and Technology	no review
28	Isotek Systems	Isotek Systems, LLC	in-review

	Contractor Acronym	Contractor Name	Contractor EVMS Status
29	JSA	Jefferson Science Associates, LLC	in-review
30	LANS	Los Alamos National Security, LLC	in-review
31	LLNS	Lawrence Livermore National Security, LLC	Certified
32	LPP	LATA Parallax Portsmouth, LLC	in-review
33	LSRS	LATA-Sharp Remediation Services, LLC	no review
34	MRI	Midwest Research Institute	Certified
35	NSTec	National Security Technology	in-review
36	NSTec & SNJV	National Security Technology & Stoller Navarro Joint Venture	in-review & certified
37	PI&TG ESS Division	Parsons Infrastructure & Technology Group, Inc. Energy Science Solutions Division	Certified
38	Princeton University	Princeton University	no review
39	PRS	Paducah Remediation Services, LLC	no review
40	Raytheon Systems Company	Raytheon Systems Company	Certified
41	S&KA	S&K Aerospace	in-review
42	SAMS	Shaw AREVA MOX Services, LLC formerly known as Duke, Cogema Stone (DCS)	Certified
43	SCLM	Sandia Corporation, a Lockheed Martin Co.	Certified
44	SNJV	Stoller Navarro Joint Venture	Certified
45	SRNS	Savannah River Nuclear Solutions, LLC	Planning
46	Stanford University	Stanford University	Certified
47	TBD		TBD
48	TPMC	Theta Pro2Serve Management Company, LLC	no review
49	Tri-States Motors	Tri-States Motors	no review

	Contractor Acronym	Contractor Name	Contractor EVMS Status
50	UC-Argonne	University of Chicago-Argonne, LLC	no review
51	UC-LBNL	University of California-LBNL	Certified
52	UDS	Uranium Disposition Services, LLC	Planning
53	University of Rochester	University of Rochester	no review
54	UT-Battelle	University of Tennessee-Battelle	Planning
55	UT-Battelle NScD	University of Tennessee-Battelle Neutron Sciences Directorate	in-review
56	WCH	Washington Closure Hanford, LLC	Certified
57	WGI	Washington Group International, Inc.	Certified
58	WSRC	Westinghouse Savannah River Co.	Certified
59	WTS	Washington TRU Solutions, LLC	in-review
60	WVNS	West Valley Nuclear Services Co.	in-review

14.8 The DepSec Report

The report template shown below is commonly known as the *DepSec Report* and, when automated, will become the most important output document generated by the PARS replacement system. Data shown on the report comes from the List of Performance Metrics. This design template for this report was approved by OECM on March 27, 2007. The list of field names required to generate the DepSec Report appear below.

1. Month and Year of Current Monthly Report
2. Project Description
3. Project Acronym
4. Project Site Name
5. Project's Program Office
6. Construction/Execution Start Date (month and year)
7. Percent Complete
8. OECM Status Assessment (narrative text)

9. OECM Status Assessment Indicator Light (red, yellow, green)
10. OECM Status Assessment Indicator Light Duration (# months indicator has been red)
11. Corrective Actions Text (narrative)
12. Estimated Date to get To Green (Quarter and Year)
13. Original Estimate for Completion Date (Quarter and Year)
14. Approved Estimate for Completion Date (Quarter and Year)
15. Forecast Estimate for Completion Date (Quarter and Year)
16. Original Cost Estimate
17. Approved Cost Estimate
18. Forecast Cost Estimate
19. Approved Contingency Amount ($ millions)
20. Used Contingency Amount ($ millions)
21. Remaining Contingency Amount ($ millions)
22. Approved Management Reserve ($ Millions)
23. Used Management Reserve ($ Millions)
24. Remaining Management Reserve ($ Millions)
25. Critical Decision Table - Description of CD
26. Critical Decision Table - Planned Date
27. Critical Decision Table - Approved Date
28. Upcoming Events – Description
29. Upcoming Events – Planned Date
30. Performance Chart – Trend Chart
31. Performance Chart – CPI Value
32. Performance Chart – SPI Value

Project Status Report for March 2007	

Project	Waste Treatment Plant	**Acronym**	WTP

Site	Sandia National Laboratory/New Mexico	Program	NNSA

Construction/ Execution Start Date	Jun 2004	Percent Complete	89%

OECM Status Assessment	
RED for 7 months	Status assessment narrative here.

Corrective Actions	
Q4 2007	

get to **GREEN** est.	

Completion Date Estimates		
Original	**Approved**	Forecast
Q1 2007	**Q3 2007**	Q1 2008

Cost Estimates		
Original	**Approved**	Forecast
$ 270 M	**$ 849 M**	$ 1,049 M

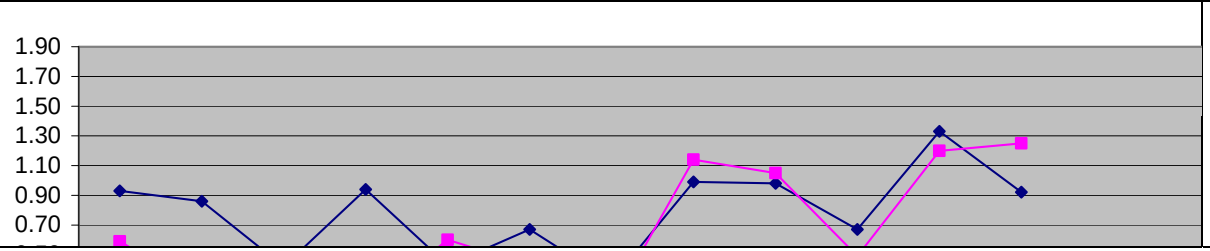
Contingency		
Approved	Used	Remaining
$ 270 M	$ 849 M	$ 1,049 M

Management Reserve		
Approved	Used	Remaining
$ 270 M	$ 849 M	$ 1,049 M

Critical Decisions	Planned	Approved
CD-0 (Approve Mission Need)	Q1 2007	14 Jan 2007
CD-1 (Approve Alternative Selection and Cost Range)	Q1 2007	14 Jan 2007
CD-2 (Approve Performance Baseline)	**Q1 2007**	**14 Jan 2007**
CD-3 (Approve Start of Construction)	Q1 2007	---
CD-4 (Approve Start of Operations or Project Completion)	Q1 2007	---

Upcoming Events	Planned
Complete Title II Design	14 Jan 2007
Award Construction Contract	---
Complete Facility 3 Construction	---

Performance (Efficiency)



CPI

	SPI