NOT MEASUREMENT SENSITIVE

DOE G 413.3-15

9-12-08

DEPARTMENT OF ENERGY GUIDE FOR PROJECT EXECUTION PLANS

[This Guide describes suggested nonmandatory approaches for meeting requirements. Guides are not requirements documents and are not to be construed as requirements in any audit or appraisal for compliance with the parent Policy, Order, Notice, or Manual.]

U.S. DEPARTMENT OF ENERGY
Washington, D.C. 20585

AVAILABLE ONLINE AT:
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INITIATED BY:
National Nuclear Security Administration

FOREWORD

This Department of Energy Guide is for use by all DOE elements and provides approaches for implementing project execution plan (PEP) requirements of DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, dated 7-28-06. Guides, which are part of the DOE Directives System, provide nonmandatory suggested approaches for meeting requirements and are not to be construed as requirements in any audit or appraisal for compliance with the parent Policy, Order, Notice, or Manual.

TABLE OF CONTENTS

1.0 Introduction

The project execution plan (PEP) is the governing document that establishes the means to execute, monitor, and control, projects which are subject to DOE O 413.3A.

The purpose of this Guide is to:

- Provide guidance for the federal project director to produce a useful and flexible plan.
- Provide guidance on how to appropriately apply tailoring as defined in DOE O 413.3A.

The scope of this guide includes basic aspects of the development and maintenance of the plan for projects of any size and complexity for the benefit of the federal project director, who is approved by the acquisition executive, and incorporates contractor input as appropriate. Integrated project teams, program managers (if applicable), program offices, acquisition executives, and contractor project managers can also benefit from the suggestions in this guide.

This Guide includes three major sections:

- Approaches and interfaces.
- Plan development.
- Suggested content for each section of a PEP.

This document also includes information on tailoring projects (Section 4.4) and PEP examples (Attachment 1), a suggested outline for a communication plan (Attachment 2), and a compilation of recommended references used to develop a PEP (Attachment 3).

1.1. Approaches and Interfaces

The plan serves as the main communication vehicle to ensure that everyone is aware and knowledgeable of project objectives and how they will be accomplished.

The plan is the primary agreement between Headquarters and the federal project director and a preliminary plan should be developed and approved at Critical Decision-1.

1.2. Plan Development

Project objectives are derived from the mission needs statement, and an integrated project team assists in development of the PEP. The plan is a living document and should be updated to describe current and future processes and procedures, such as integrating safety into the design process. Updates are common as a project moves through Critical Decision stages.

Preliminary PEP (Critical Decision-1). The preliminary PEP is part of the Critical Decision-1 approval package. Depending upon the type of project and team experience, information could range from greater detail regarding current or near term activities (i.e., the design phase systems, processes, procedures and personnel) to less detail for future activities concerning procurement

and construction activities to even less detail regarding testing, start-up and operational transition.

Critical Decision-2. The plan should be updated as part of the Critical Decision-2 approval package. At this point the plan should contain a greater depth and breadth of information, detailed enough to bound the systems, processes, procedures and personnel and to support a well-defined scope, resource loaded schedule, definitive cost estimate, and defined key performance parameters for project execution. If any systems, processes, procedures and personnel requirements are yet to be fully defined (e.g., for testing, start-up, or operation transition) the plan should clearly identify relevant assumptions/constraints and associated risks.

PEP Updates. The plan is a living document that should be updated to capture changes to project systems, processes, procedures and personnel and revisions to the approved performance baseline or a post-construction contract award. The process for configuration control should be defined, including definitions of minor/major revisions and their associated approval authorities.

2.0 Suggested Content for Each Section

2.1. Cover and Signature Pages

2.1.1. Cover Page

The cover page should include the title of the document, document control number, project name, project number, Department of Energy program, site name, document date, restrictions or classification (as applicable), and any appropriate disclaimers.

2.1.2. Revisions Page

All revision numbers and associated dates should be captured along with the date the document was approved.

2.1.3. Signature Page

The signature page (only one page in length) is the second page and should contain the following:

- project name and number,
- site name,
- date,
- restrictions or classification
- signature block for the acquisition executive,
- approval authority,

- program office point of contact, and
- signature block for the primary author (i.e., federal project director, any other names of reviewers, concurrences).

2.1.4. Table of Contents

The document table of contents should include lists of tables and figures.

2.1.5. Acronyms List

The list should include acronyms used in the document and their definitions.

2.2. Main Body

2.2.1. Introduction

This section should state the purpose and organization of the plan. Major sections should include project background, justification of mission need, and project description.

2.2.1.1. Project Background

This section should provide a brief history/background of the project identifying important chronological items/issues and key drivers including external drivers such as Congressional or Presidential mandates, should state the project's purpose and major objectives, and should include a clear, concise statement of what the project will accomplish and the time frame required.

2.2.1.2. Justification of Mission Need

The mission need statement should be summarized and should list potential hazards, including safety, security, and strategic review of overall project risk.

2.2.1.3. Project Description

Provide a summary-level description of the project, including:

- the project vision (i.e., concept of operations),
- major system components and their functions,
- major project assumptions and uncertainties,
- project requirements,
- key performance parameters,
- project scope,

- major interfaces,
- required site development, permits and licensing,
- major safety systems and assumptions and uncertainties related to safety, where appropriate, and
- key stakeholders.

2.2.2. Management Structure and Integrated Project Teams

The project organization should be described, including an organization chart that identifies the various participants (i.e., organizational breakdown structure), their roles and responsibilities (i.e., responsibility assignment matrix), interfaces and reporting relationships. The discussion of resource requirements should include the necessary resources from inception to operational turnover. If a critical capability gap is identified on the IPT, the FPD should take action to close the gap with appropriate government or contract support before progressing further with the project. Lower tier documents will capture all the details and plans of resource cost/schedule/scope project life cycle from initiation to start of operations/closeout. When developing the project organization, refer to the DOE O 414.1C, *Quality Assurance*, dated 6-17-05, and/or Quality Assurance Rule [Title 10 of the Code of Federal Regulations (CFR) Part 830, Subpart A, Quality Assurance] requirements that are applicable for project organization.

Depending on the complexity of the project, a separate human resources and staffing plan may be appropriate.

Reference or attach the integrated project team charter to the PEP.

2.3. Tailoring Strategy

This section should document how the requirements of DOE O 413.3A will be met through a tailored application of project management and project controls.

Tailoring is a flexible approach that allows appropriate levels of effort or analytical rigor to be used in fulfilling all requirements of the Order. Tailoring does not mean waiving requirements, nor does it imply the omission of essential elements in the acquisition process.

In the context of nuclear safety, tailoring is addressed in DOE-STD-1189, *Integration of Safety into the Design Process*. It should indicate how the information and approvals for documentation will be sequenced, organized, and bundled throughout the phases of the project, such that all requirements of the standard are met, including development of a safety design strategy. For large, complex, one-of-a-kind nuclear facilities (i.e., Hazard Category 1, 2, or 3), tailoring would not be expected.

Tailoring should be implemented in relation to the cost, complexity, and risk; project type; past experience; and lessons learned. This section should identify major assumptions or risks

affecting the project, the project management requirements to be tailored, how tailoring will be applied, and the rationale or benefit to be derived. Prior to each Critical Decision, it should be updated based on any changes in project risks, cost, or other factors. One or more of the following examples of tailoring applications may be considered as elements of the strategy.

Consolidated or Phased Critical Decisions. Consolidation may facilitate some projects, such as single-contract procurements with well-defined requirements and low complexity, cost, and risk. However, critical decisions should not be combined if doing so would preclude meeting other DOE requirements, such as developing a preliminary documented safety analysis. Critical decisions also may be phased when prudent or necessary, such as long lead-time procurements or site preparation work (i.e. Critical Decision–3A).

Graded Approach. This approach means that the level of effort or detail may be reduced to the degree needed to satisfy requirements. For projects involving existing missions or assets a graded approach may be more appropriate than for those involving new missions or capabilities. For example, substituting an equivalent document or addressing multiple requirements in a single document may be acceptable. For project reviews, a graded approach could involve fewer technical reviewers or reduced lines of inquiry. Use of a graded approach to documentation for nuclear facility construction is addressed by DOE G 413.3-2.

Delegated Decisions and Responsibilities. Where approval authority is not identified, tailoring may be allowed according to other directives or program office policies (see Tables 1 and 2 of the Order).

2.4. Integrated Baseline

The project baseline evolves and is defined differently throughout the life cycle of the project and should be defined for technical scope (i.e., requirements), schedule and cost. Refer to DOE O 413.3A for project baseline requirements. Prior to CD-2 during preliminary baseline development, the project scope, schedule, and cost may change as the project continues with design and planning.

2.4.1. Scope Baseline

Technical performance parameters and deliverables should define key features of the asset and how the asset will perform when completed at CD-4 including characteristics (quantity, size, etc.), functions, requirements, or the design basis that, if changed, would have a major impact on system or facility performance.

Examples include:

- The high-level waste vitrification system shall be capable of 100 liters per hour of qualified chemical makeup; containing 40 weight percent high-level waste; loaded into Department of Energy approved canisters for shipment to the storage facility; with a plant availability of 66% or greater.

- The Research Office Building, at 160,000 Gross Square Feet, shall be capable of housing 300 scientists, engineers, and other support personnel. The building shall have building-level utility meters to track and continuously optimize energy performance.

- The summary level project work breakdown structure and dictionary should be included and should be comprehensive and contain sufficient levels to divide project work into elements (work packages).

2.4.2. Schedule Baseline

The schedule baseline for a project submitted for approval at CD-2 should include an overall project summary level schedule. As applicable, contents include but are not limited to the following:

- Key activities/milestones, etc.

- Defense Nuclear Facilities Safety Board deliverables.

- The Chief of Nuclear Safety (Department of Energy) or Chief Defense Nuclear Safety (NNSA) review and approval in the Level 1 milestone schedule.

- Major cleanup agreement milestones, regulatory milestones or actions and completion of projects and tasks on the critical path.

- Critical Decision approval dates.

- Major reviews conducted by the field and Headquarters.

- Major shipments of waste or materials to other DOE sites or commercial facilities.

- Major procurements and/or when major procurement decisions were made including foreign owned determinations and approvals.

- When major Headquarters policy decisions are needed and from whom.

- Major activities (contractor and/or Federal) associated with project completion.

- Government-furnished service item (particularly if from Headquarters/site).

- Key decisions required by other agencies.

(Note: for “projectized operations” such as many Environmental Management projects, refer to the Environmental Management Guide).

2.4.3. Cost Baseline

The cost range in the preliminary plan and the cost baseline should include all costs as defined below at the level 2 or 3 work breakdown structure, depending on the size of the project. Prior to CD-2 approval, cost baseline estimates should be a cost range.

- **Total estimated cost,** such as costs associated with the acquisition of land and land rights; engineering, design, testing, and inspection; direct and indirect construction/fabrication and the initial equipment necessary to place the plant or installation in operation. Total estimated cost may be funded as an operating or capital expense.

- **Other project costs,** that are not identified within the total estimated cost; generally, costs incurred during the initiation and definition phases for planning, conceptual design, research and development, and during the execution phase for startup and operation. Other project costs are always operating funds.

- **Contingency,** the portion of the budget that is set aside for risks within the project scope but outside the performance measurement baseline. Contingency may be included both within the total estimated and other project cost.

- **Management reserve,** budget withheld by the contractor for management control purposes. It is included in the total estimated cost but is not part of the performance measurement baseline.

- **Performance measurement baseline,** the time-phased budget plan against which contract performance is measured. It includes all allocated or distributed budgets plus the undistributed budget but does not include Management Reserve.

- **Total project cost,** the sum of total estimated cost and other project cost.

2.4.4. Funding Profile

The overall purpose and scope of this section is to ensure that the project clearly illustrates its requirements for time phased funding over the course of the project. This should be considered essential, as it is recognized that any given project will most likely not receive all its funding in any given year but over multiple years in accordance with the Departments annual budget cycle with Congress.

Funding profile information should clearly designate by fiscal year how much funding will be needed for the project. Cumulative time phased budget requirements will be the total project cost.

- A project cost summary (baseline and budget data) table by fiscal year should be included to reflect cost baseline information at Work Breakdown Structure Level 2. For EM projects, the layout could be prior years in one column and performance

measurement baseline near term baseline by fiscal years and out years in the last column.

2.4.5. Life Cycle Cost

Life-cycle costs should delineate clearly a total for the estimate as well as breakouts that correspond to each major phase of the project (i.e., construction, operations etc.). In addition, this discussion should also include the estimated duration (i.e., years) for each of the major phases of the project along with a statement on which phase of the project dominates or drives the overall life-cycle cost. It should also be clear what reference point is being used to describe the costs as (i.e., base dollars, as spent dollars, etc). Key applicable assumptions should be stated. Highlighting life-cycle analysis factors associated with sustainability features is also suggested.

2.4.6. Baseline Change Control

The baseline change control framework which includes applicable change management processes, threshold requirements, and change control board charter and the procedures to be followed should be established or referenced. A summary table of baseline change control thresholds; and approval authority for scope, schedule, and cost for the Secretarial Acquisition Executive, Program Secretarial Officer, acquisition executive, federal project director, project manager, and others as applicable should be included in the PEP.

2.5. Project Management/Oversight (Strategy)

2.5.1. Project Management Approach

The overall project management approach for the project should be described under the following topics:

2.5.1.1. Project Reporting

Briefly describe the reporting process which includes both internal and external requirements and as appropriate, types, content, distributions, frequency of reporting, level of control, and review and approval requirements.

2.5.1.2. Risk Management

This section should describe the policies and practices for managing risk management and a summary of the results of the risk analysis. Risk management should be addressed in the plan or included by reference and should summarize the key project risks. Key risks (identified as “critical risks” in DOE O 413.3A) are those estimated to have the most impact on cost and schedule and could include project, technical, internal, external, and other sub-categories. For projects involving Hazard Category 1, 2, or 3 nuclear facilities, refer to DOE-STD-1189, Appendix F. Ties to contingency/management reserve development based on identified project risks should also be included.

2.5.1.3. Engineering and Technology Readiness

Briefly describe readiness of the project and plans to manage and control engineering and technology development and deployment. If a technology readiness assessment has been completed or a technology maturation plan has been developed, these should be summarized.

2.5.1.4. Alternatives Analysis and Selection

Briefly summarize the alternative analyses and selections associated with accomplishing the mission and associated key parameters.

2.5.1.5. Environment, Safety, and Health

Provide a reference or identify all documents that establish the ES&H plan for the project or establish requirements for the site as a whole. The ES&H section should include the following:

- a brief assessment of environmental permitting,
- the status of and plans for National Environmental Policy Act (NEPA) compliance,
- a description of all safety documentation, such as the site Integrated Safety Management System and/or a project-specific safety management plan, and
- a description of environmental management documentation, such as the site's Environmental Management System and/or project-specific waste management or pollution prevention plans.

The PEP need not address ES&H work required for actual facility operations. However, for nuclear facility projects, the ES&H section should describe how safety-in-design requirements of DOE-STD-1189 will be accomplished.

2.5.1.5.1. Integrated Safety Management

Document that safety is integrated into daily work activities along with the Environmental Management System (EMS) requirements of DOE O 450.1A, Environmental Protection Program, dated 6-4-08, which also addresses design with requirements to optimize worker and environmental controls and to consider pollution prevention and sustainable designs. Refer to the appropriate ISM documents, listed in the Attachment 3 of this Guide.

2.5.1.5.2. Industrial Safety and Occupational Health

Document or reference the means of implementing worker and public protection measures. See references on Industrial Safety and Occupational Health listed in Attachment 3 of this Guide.

2.5.1.5.3. Nuclear Safety

Document or reference implementation of nuclear safety requirements and integration of safety into design. See references on Nuclear Safety listed in Attachment 3 of this Guide.

2.5.1.5.4. Hazard Analysis

Reference the Hazard Analysis document or identify the hazards related to the project and discuss mitigation/elimination plans.

2.5.1.5.5. Value Management

Value management should be performed early in a project life-cycle and referenced or documented in the plan.

2.5.1.5.6. Value Engineering

Refer to DOE P 413.2, *Value Engineering,* dated 1-7-04, DOE O 430.1B, *Real Property Asset Management*, dated 9-24-03, and Office of Management and Budget Circular A-131, *Value Engineering.*

2.5.1.6. Safeguards and Security

Safeguards and security systems, processes, procedures, and personnel should be identified and/or developed to establish a framework that will systematically integrate Safeguards and security management into the project acquisition process. Refer to/include the project's safeguards and security plan.

2.5.1.7. Configuration Management

Configuration management is used to identify and document the configuration of the end products and control changes to the configuration during the life cycle. The federal project director should initiate a configuration management system early in the development of the project and ensure the delivery of complete as-built documents at the close of the project. See references on configuration management listed in Attachment 3 of this Guide. Refer to/include the project's Configuration management plan.

2.5.1.8. Records Management/Document Control

- Describe how records will be managed on the project. Federal records should be maintained in a manner that addresses DOE policy and regulations. See references on records management listed in Attachment 3 of this Guide. Refer to/include the project's records management plan.

2.5.1.9. Systems Engineering

- The primary goal of the systems engineering process is to transform mission requirements into system architecture, performance parameters, and design details. The process begins with the definition of a need and progresses through the establishment of the baseline and ending with verification that the need has been met. See references on systems engineering listed in Attachment 3 of this Guide. Refer to/include the project's systems engineering plan and documentation.

2.5.1.10. Earned Value Management System

- Describe how earned value management will be implemented and closely integrated with acquisition plan. EVMS is not necessary for acquisition of commercial products that are designed and built from commercial off-the-shelf technologies. Such acquisitions are generally single payment upon acceptance or phased payments based on well-defined delivered performance with payment values founded on market or competitive pricing See references on earned value management listed in Attachment 3 of this Guide. Refer to/include the project's earned value management system plan.

2.5.1.11. Quality Assurance

Describe the quality assurance requirements for the project. Depending on the project size and complexity, a project's Quality Assurance Program may be based on a corporate quality assurance plan or a project-specific plan. Also refer to regulatory and contract requirements for the QA Program and DOE O 414.1C, Quality Assurance, dated 6-17-05. See further references on quality assurance listed in Attachment 3 of this Guide.

2.5.1.12. Communication Management Plan

Describe policies and practices for communication to the multiple stakeholders and interested parties. Provide the mission, strategy and objectives of the project as the structure within which the communication should be provided and address project performance, inputs to decisions such as risk, and methods and frequency for keeping stakeholders informed. Either refer to or include the project's communication management plan. Attachment 2 to this Guide is a suggested format for a communication plan.

2.5.1.13. Testing and Evaluation

Limited test and evaluation activities can be incorporated into the PEP. Where the test and evaluation effort is significant, a dedicated plan is recommended.

2.5.1.14. Project Reviews

Include a description of major reviews that would occur during a project's life cycle and the results of those reviews. Refer to the project review plan.

2.5.1.15. Transition to Operations

Project transition to operations begins during design and continues until the new facility is completely operational and commissioned. Refer to/include the project's transition/closeout plan.

2.5.1.16. Project Closeout

Project closeout is initiated once the construction has been completed and the project facilities are fully operational and commissioned. Refer to/include the project's transition/closeout plan

PROJECT EXECUTION PLAN EXAMPLES

Examples of project execution plans can be found on the DOE Office of Management website. The examples can be found under Policy Guidance/Project Management:

http://management.energy.gov/

SUGGESTED COMMUNICATION PLAN TABLE OF CONTENTS

I. Background and Purpose

- a. Responsible Office and Key Individuals
- b. Necessary Oversight and Signatory Responsibilities

II. Project Review

III. Target Objectives

- a. Development of Standard and As Needed Communication Formats and Messages for Identified Stakeholders
- b. Development of Communication Flow Diagrams

IV. Strategy

- a. Statement of Overall Strategy Elements
- b. Assumptions and Uncertainties
- c. Process for Validating and Verifying Assumptions and Uncertainties

V. Key Target Stakeholders

- a. Identification Process
- b. Known Stakeholders

VI. Identified Communication Channels for Each Target Stakeholder Grouping

- a. Process for Identifying Key Points of Contact
  - i. Primary Point-of-Contact
  - ii. Back-up Point-of-Contact
- b. Process for Identifying Key Points of Contact for Emergency Communications

VII. Key Messages

- a. Site Communication Requirements
  - i. Goals and Objectives
  - ii. Processes
- b. When Certain Communications may be Issued
- c. Definition of Various Modes of Communication
- d. Situational Requirements
- e. Definition of Special Circumstances
- f. Definition of Special Approval Channels
- g. Communication Development
  - i. Who Should be Involved in Construction of Communications
  - ii. Who Should Review
- h. Standard Messages
- i. Key Interfaces
- j. Communication Distribution and Feedback

VIII. Roles and Responsibilities

- a. Identify All Parties
- b. Responsibility Assignment Matrix

IX. Overview Metrics for Responsible Persons/Message Approval Process

Revisions and Updates

Communication Management Plan Example:

http://74.125.45.104/search?q=cache:V9SpEq_WHE4J:www.mbe.doe.gov/cf40/i-manage/ENG5036CommunicationsManagementPlan.pdf+project+management+sample+communication+plans&hl=en&ct=clnk&cd=106&gl=us

REFERENCES

General Program and Project Management References:

- DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, dated 7-28-06.
- DOE O 226.1A, *Implementation of Department of Energy Oversight Policy*, dated 7-31-07.
- DOE P 226.1A, *Department of Energy Oversight Policy*, dated 5-25-07.

Acquisition Strategy Reference:

- Federal Acquisition Regulation 7.1.

Alternatives and Analysis References:

- Clemen, R. T. (1996). *Making Hard Decisions*. Boston: PWS Kent Publishing.
- Dyer, J. S. and Lorber, H. W. (1982). *The Multi-Attribute Evaluation of Program-Planning Contractors*. OMEGA, 6, 673-678.
- Holloway, C. A. (1979). Decision *Making Under Uncertainty: Models and Choices* Englewood Cliffs, N. J.: Prentice-Hall.
- Keeney, R. L. and von Winterfeldt, D. (1991). *Eliciting Probabilities from Experts in Complex Technical Problems. Institute of Electrical and Electronics Engineers Transactions on Engineering Management*, 38, 191-201.
- McNamee, P. and Celona, J. (1990). *Decision Analysis with Supertree*. 2nd edition. San Francisco: Scientific Press.
- Raiffa, H. (1968). *Decision Analysis*. Reading, MA: Addison Wesley.

Configuration Management References:

- 10 Code of Federal Regulations Part 830, Nuclear Safety Management.
- American National Standards Institute/ Electronic Industry Alliance-649, National Consensus Standard for Configuration Management.
- DOE G 420.1-1, *Nonreactor Nuclear Safety Design Criteria and Explosives Safety Criteria Guide for use with DOE O 420.1, Facility Safety*, dated 3-28-00.
- DOE O 420.1B, *Facility Safety*, dated 12-22-05.

- DOE O 433.1A, *Maintenance Management Program for DOE Nuclear Facilities*, dated 2-13-07.

- DOE, Project Management Practices, Configuration and Change Management, Rev E, June 2003.

- DOE-STD-1073-2003, *Configuration Management.*

- Process safety management provisions of Title 29 Code of Federal Regulations (CFR) 1910.119.

- Project Management Institute Configuration Management Resources.

- DOE O 5480.30, *Nuclear Reactor Safety Design Criteria*, dated 1-19-93.

Earned Value Management System References:

- American National Standards Institute/Electronic Industry Alliance-748-1998, *Earned Value Management Systems*.

- DOE G 413.3-10, *Earned Value Management System (EVMS)*, dated 5-6-08.

Environmental Management References:

- DOE O 450.1A, *Environmental Protection Program*, dated 6-4-08.

- DOE O 451.1B Chg 1, *National Environmental Policy Act Compliance Program*, dated 9-28-01.

External Independent Reviews and Independent Project Review References:

- Office of Engineering and Construction Website; http://www.management.energy.gov/project_management.htm

- Independent Project Reviews, For Construction Projects and Related Programs, Conduct of Independent Project Reviews, No. NA54-IPR-01, Rev. 0 in draft).

- NA-54 intranet web site on project reviews, Technical Independent Project Reviews training module.

- National Nuclear Security Administration Policy Letter: Business Operating Policy 50.003, June 6, 2007.

Industrial Safety and Occupational Health References:

- DOE Office of Health, Safety and Security http://hss.energy.gov/.

- Occupational Safety and Health Administration compliance–40 CFR 1910.120 and www.osha.gov.

- 10 Code of Federal Regulations Part 851, Worker Safety and Health Program.

Integrated Safety Management References:

- DOE-STD 1189, Integration of Safety into the Design Process.

- DOE P 450.4, *Safety Management System Policy*, dated 10-15-96, which establishes the basis for ISMS.

- DOE O 450.1, *Environmental Protection Program*, dated 1-15-03.

- DOE M 450.4-1, *Integrated Safety Management Manual*, dated 11-1-06.

- Integrated Safety Management Systems (ISMS) Verification Team Leader's Handbook, online at: http://www.hss.energy.gov/nuclearsafety/techstds/standard/hdbk3027/hdbk302799.pdf.

- NNSA Best Practices and Guidance Document for Effective Incorporation of ISM and QA at the Activity Level. http://www.hss.energy.gov/HealthSafety/ism/NNSA-WorkPlanning.pdf

- DOE O 414.1C, *Quality Assurance*, dated 6-17-05.

- 10 CFR Part 830, Subpart A.

- DOE O 226.1A, *Implementation of Department of Energy Oversight Policy*, dated 7-31-07.

Life Cycle Asset Management References:

- Life Cycle Asset Management, Good Practice Guide-FM-001, Project Management Overview, March 1996.

- Life Cycle Asset Management, Good Practice Guide-FM-005, Test and Evaluation, March 1996.

Management Reporting References:

- Office of Management and Budget Circular A-11 Part 3, Planning Budgeting and Acquisition of Capital Assets. Including Exhibit 300.

- DOE O 361.1B, *Acquisition Career Management Program*, dated 1-24-08.

- DOE O 361.1B, *Acquisition Career Management Program*, Chapter IV, "Project Management Career Development Program Module."

- American National Standards Institute/ Electronic Industry Alliance-748-1998, Earned Value Management Systems.

- Department of Energy Project Assessment and Reporting System (online at http://pars.energy.gov.

Non-Nuclear Security References:

- DOE O 470. 4A, *Safeguards and Security Program*, dated 5-25-07.

- DOE G 413.3-3, *Safeguards and Security for Program and Project Management*, dated 11-15-07.

- DOE O 551.1C, *Official Foreign Travel*, dated 6-24-08.

- DOE M 471.1-1 Chg 1, *Identification and Protection of Unclassified Controlled Nuclear Information Manual*, dated 10-23-01.

- DOE M 475.1-1B, *Manual for Identifying Classified Information*, dated 8-28-07.

- DOE O 471.1A, *Identification and Protection of Unclassified Controlled Nuclear Information*, dated 6-30-00.

- DOE P 205.1, *Departmental Cyber Security Management Policy*, dated 5-8-01.

Nuclear Safety and Design References:

- Title 10 Code of Federal Regulations 830.

- DOE-STD 1189, Integration of Safety into the Design Process.

- DOE O 420.1B, *Facility Safety*, dated 12-22-05.

Quality Assurance References:

- Title 10 Code of Federal Regulations 830 Subpart A, Quality Assurance Requirements

- DOE O 414.1C, *Quality Assurance*, dated 6-17-05.

- ASME NQA-1-2000, Quality Assurance Requirements for Nuclear Facility Applications or later editions.

- ANSI/ASQ Q 9001-2000, Quality Management System Requirements (for non-nuclear activities).

- ANSI/ASQ Z 1.13, Quality Guidelines for Research, 1999 (for non-nuclear activities).

- NNSA Quality Management Policy, QC-1 (Quality Management System for the nuclear weapons complex and weapons-related activities), Rev. 10, February 10, 2004.

- Department of Energy/RW 0333P, Quality Assurance Requirements and Description for High-Level Waste & Spent Nuclear Fuel.

Records Management References:

- DOE O 243.1, *Records Management Program,* dated 2-3-06.

- 10 Code of Federal Regulations Part 830.6.

- National Archives Requirements for Federal Records.

Scope Baseline References:

- Project Management Institute is the accepted standard on Work Breakdown Structure [A Guide to the Project Management Body of Knowledge (PMBOK® Guide) - Third Edition].

- American National Standards Institute/ Electronic Industry Alliance-748-1998, *Earned Value Management Systems*.

- DOE G 413.3-10, *Earned Value Management System (EVMS)*, dated 5-6-08.

Systems Engineering References:

- DOE, Project Management Practices, Systems Engineering and Interface Management, Rev E, June 2003.

- Department of Defense, Defense Acquisition Guidebook, Chapter 4, Systems Engineering.

- International Council of Systems Engineering (INCOSE) Handbook for Systems Engineering, version 3.

- DOE O 420.1B, *Facility Safety*, dated 12-22-05.

Value Engineering References:

- DOE P 413.2, *Value Engineering*, dated 1-7-04.

- Office of Management and Budget Circular A-131, *Value Engineering*.