

BUSINESS OPERATING PROCEDURE

BOP-06.05

Approved: 8-9-16

**PROJECT MANAGEMENT FOR THE
ACQUISITION OF CAPITAL ASSETS**



**NATIONAL NUCLEAR SECURITY ADMINISTRATION
Office of Acquisition and Project Management**

**CONTROLLED DOCUMENT
AVAILABLE ONLINE AT:**

<https://nnsaportal.energy.gov/intranet/na-mb/na-mb-20/pages/nnsa-policy.aspx>

**OFFICE OF PRIMARY INTEREST (OPI):
Office of Enterprise Project Management**

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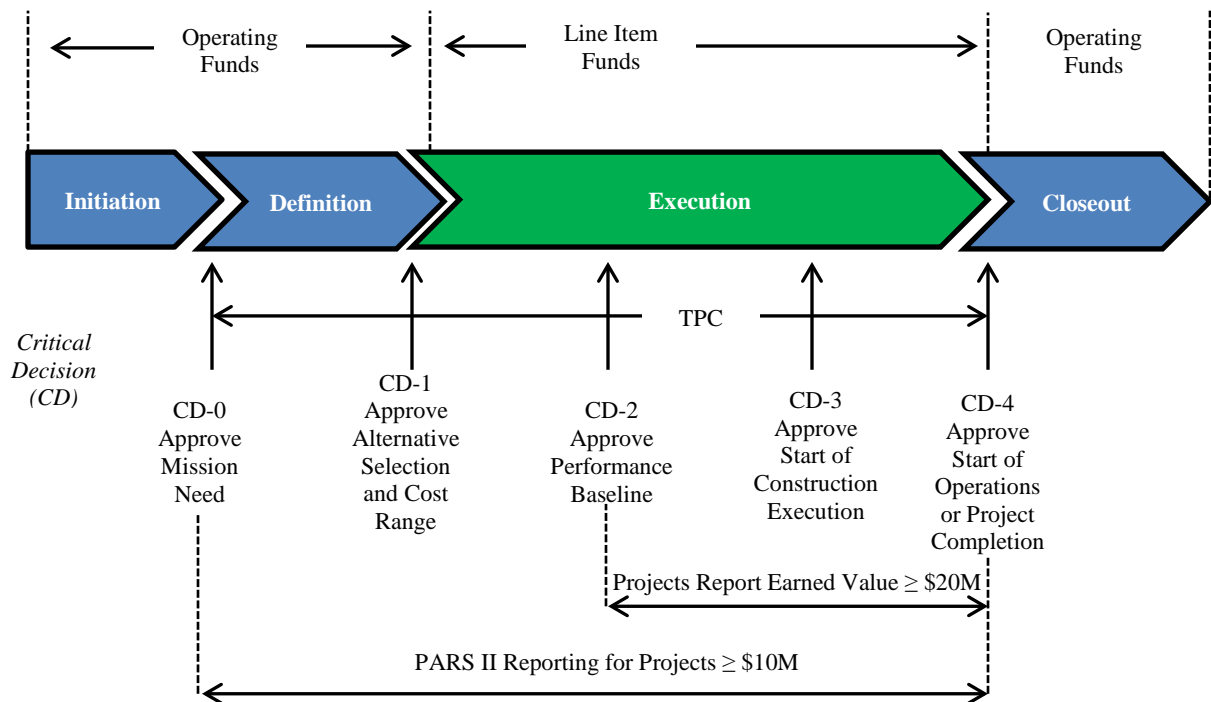
PROJECT MANAGEMENT FOR THE ACQUISITION OF CAPITAL ASSETS

1. **PURPOSE.** This Business Operating Procedure (BOP) describes the roles, responsibilities, and authorities of NNSA's organization as it relates to capital asset project management in accordance with Department of Energy (DOE) Order (O) 413.3B Chg 2 (PgChg), *Program and Project Management for the Acquisition of Capital Assets*, or successor (herein referred to as DOE O 413.3) and subsequent direction from the Secretary of Energy.
2. **CANCELLATIONS.** None.
3. **APPLICABILITY.**
 - a. **Federal.** This BOP pertains to all NNSA Federal staff.
 - b. **Contractor.** This BOP does not apply to contractors.
 - c. **Equivalency.** In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at 50 United States Code sections 2406 and 2511, and to ensure consistency through the joint Navy/DOE Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors (Director) will implement and oversee requirements and practices pertaining to this Directive for activities under the Director's cognizance, as deemed appropriate.
 - d. **Exemption.** The Director, Office of Enterprise Project Management (NA-APM-20) may grant waivers to this BOP. This responsibility is non-delegable. There are no other forums of redress.
 - e. **Relationship to DOE O 413.3.** This BOP will be applied in conjunction with, and will not supersede any requirements established by, the current version of DOE O 413.3.
4. **SUMMARY OF CHANGES.** Not applicable.
5. **BACKGROUND.** This document defines accountability, responsibilities, and authorities while highlighting key factors that contribute to construction project management success across National Nuclear Security Administration (NNSA). At its simplest, this BOP clarifies that mission need, requirements, technical alternative selection, and funding of capital asset projects governed by DOE O 413.3 are program office responsibilities; while the Office of Acquisition and Project Management (NA-APM) is responsible for the acquisition planning, project design, and management of design and construction in accordance with the terms and conditions of the design and construction contract, and completing the project at the approved baseline. Within the DOE, NA-APM is also responsible for ensuring NNSA follows DOE's acquisition and project management requirements outlined in the DOE Acquisition Regulation (DEAR), DOE O 413.3 and the Department's policies for aligning contracts and contract incentives with taxpayer interests.

This BOP flows down from Office of Management and Budget (OMB) Circular A-11, the Federal Acquisition Regulation (FAR), Office of Federal Procurement Policy (OFPP) guidance, the DEAR, DOE O 413.3, and the Department's acquisition and project management policies.

The DOE Acquisition Management System for Line Item Capital Asset Projects illustration (see Figure 1) is provided for context to explain NNSA's Capital Asset Acquisition and Project Management process.

Figure 1. The DOE Acquisition Management System for Line Item Capital Asset Projects



6. REQUIREMENTS.

a. General.

- (1) The Capital Asset Project Management process must be applied in conjunction with the requirements established by DOE O 413.3 and subsequent direction from the Secretary of Energy.
- (2) As a capital asset project progresses through the various Critical Decision (CD) phases, NNSA's program managers are responsible for the mission need, requirements, technical alternative selection, and funding of capital asset projects governed by DOE O 413.3, while NA-APM is responsible for the acquisition planning, project design and construction in accordance with the terms and conditions of the design and construction contracts, and/or Inter-Agency Agreement(s) (IAs).

- (3) Appendices: Appendix 1, *Project Process - Overview of Roles and Responsibilities*, summarizes NA-APM, Program, and Field Office responsibilities in the capital asset project process. Appendix 2, *Project Process - Key Critical Decision Phase Interfaces*, provides a graphical representation of those roles and responsibilities.
- (4) From CD-1 through CD-4, NNSA's peer review policy and independent project reviews must be implemented in accordance with BOP-06.04, *Project Reviews*.
- (5) From CD-1 through CD-4, independent cost estimates and reviews must be conducted in accordance with NAP-28, *Responsibilities for Independent Cost Estimates*, and BOP-06.03, *Independent Cost Estimates*.
- (6) From CD-0 through CD-2, technology readiness assessments (TRAs) must be implemented in accordance with Technology Readiness Assessments guidance.
- (7) From CD-0 through CD-4, the Project Management Risk Committee (PMRC) must review all critical decisions for projects greater than \$100M, and make recommendations to the Project Management Executives (PMEs) and Energy System Acquisition Advisory Board (ESAAB). The PMRC must be out-briefed on all independent project peer reviews.

b. Pre CD-0: Approve Mission Need.

- (1) Develop Mission Need. When a credible performance gap is identified between current capabilities and those required to achieve the mission, the Program and/or Field Office leads the development of the [Mission Need Statement \(MNS\)](#) that translates mission need into functional requirements. The MNS must be written to not assume any particular solution, either material or non-material. It is important that the Program/Field Office engages NA-APM at this phase so that a Project Integrator can be added to the team managing the project to provide assistance to ensure applicable standard practices, policies, and strategic guidance are communicated to get the project off to a good start.
- (2) Prepare the Program Requirements Document (PRD). The Program Office is responsible for the development of the [Program Requirements Document](#). The PRD must be written to be unbiased and not assume any material or non-material solution. The document should address such concerns as performance, supportability, physical and functional integration, human integration, safety, security, test and evaluation, implementation and transition, quality assurance, and configuration management. The PRD provides the framework from a program perspective for NA-APM's development of the acquisition strategy.

- (3) Identify and Provide Funding. The responsible Program Office provides funding for capital asset projects from appropriated funds. The Program Office formulates the budget details in accordance with the NNSA's corporate Planning, Programming, Budgeting, and Evaluation (PPBE) process. The Program Office is responsible for ensuring adequate resources are provided throughout the critical decision process.

c. Pre CD-1: Approve Alternative Selection and Cost Range.

- (1) Establish and Manage the Integrated Project Team (IPT). Upon approval of the mission need for a capital asset project, the Program Office shall establish a qualified Integrated Project Team comprised of Federal, contractor, Field Office, Headquarters, program, project, contracting professionals, and subject matter experts. NA-APM will assign project and acquisition professionals to the IPT to support the development of all project requirements. It is important to include representatives from the Office of Safety, Infrastructure and Operations (NA-50) to advise on nuclear safety and infrastructure issues, as well as other subject matter experts who would contribute to the success of the project.
- (2) Federal Project Director (FPD) Appointment. NA-APM will coordinate with the Program/Field Office to identify appropriately certified FPDs on their teams who can be assigned to specific projects. If appropriately certified FPDs are not available from the cadre of professionals that have been assigned to NA-APM, the Program Office sponsoring the work or the Field Office where the project is being executed must identify resources at the site with the requisite skills and certifications to fill the vacancy. If resources are not available within NA-APM or the Program/Field Office, NA-APM and the Program/Field Office will jointly request an increase from unfillable NNSA vacancies to recruit and fill these critical positions to ensure sufficient Federal oversight is provided in accordance with Government Accountability Office (GAO) and Congressional expectations. The FPD is assigned no later than CD-1, and leads the IPT. The FPD manages and documents decisions affecting the management of the project with a particular focus on baseline development, construction management, and a successful turnover to operations at project completion. The FPD is returned to the donor organization once CD-4 is achieved.
- (3) Develop Alternatives and Finalize Analysis of Alternatives (AoA). For all projects with an estimated Total Project Cost (TPC) of \$10M or greater currently seeking CD-1 approval, the Program Office shall conduct an alternatives analysis that is independent of the contractor organization that would benefit from the proposed project. The AoA shall be conducted in accordance with BOP-03.07, *Analysis of Alternatives*. It is important the Program Office engages early with the Office of Cost Estimating and

Program Evaluation (CEPE) to understand the requirements for the AoA, both in terms of process and products.

- (4) Develop the Acquisition Strategy. NA-APM develops the [Acquisition Strategy](#), in consultation with the Program Office: the FPD's high level plan for satisfying the mission need in the most effective, economical, and timely manner. The Acquisition Strategy shall be presented to the PME at the CD-1 ESAAB (or Equivalent) meeting. After approval of the Acquisition Strategy, the responsible Contracting Officer will develop and document the [Procurement Plan](#): specifying the contract type in accordance with sound business practices, statutory, regulatory, and policy requirements.
- (5) Develop the Preliminary Project Execution Plan (PPEP). The FPD leads the development of the PPEP, which defines the preliminary project scope and describes the organizational framework and overall management system for the project. After the PPEP is approved, the FPD must develop the project's design management plan, safety basis, and design baseline to manage the cost and schedule to achieve CD-2. The FPD, program manager, NA-APM, and PME will approve scope changes in accordance with the change control thresholds in the approved PPEP.
- (6) Develop the Conceptual Design. The Program Office is the lead in developing the conceptual design. To meet the Secretary's design management policies for nuclear projects, proposed FPDs should be assigned to the AoA team to ensure they fully understand how the particular solution was developed. This will ensure the conceptual design conforms to the selected alternative.

d. Pre CD-2: Approve Performance Baseline.

- (1) Baseline Development. The Department formalizes the cost, schedule, and scope of a project at CD-2, and measures success against this baseline at project completion. The project requirements, identified in the approved PRD, and proposed funding profile will be used to develop the project cost and schedule baseline. The FPD is responsible for developing the performance baseline, which will be validated by NA-APM or DOE-Office of Project Management Oversight and Assessments (PM) based on the dollar threshold outlined in DOE O 413.3B. The FPD obtains concurrence of the project baseline from the Program Office, Field Office, and Headquarters elements, and obtains approval from the PME through the ESAAB process.
- (2) Establish a Project Management Office (PMO), if applicable. A PMO provides a full time team dedicated to the project to ensure project delivery in accordance with the established cost, schedule, and scope baselines. For a Major System Acquisition (MSA) project, NA-APM will

determine if a PMO should be established. Establishment of a PMO must be approved by the Administrator.

- (3) Develop the Project Execution Plan (PEP). The FPD assumes the lead role in finalizing the [Project Execution Plan](#). The PEP is the governing document that establishes the means to execute, monitor, and control the project and should include environmental and safety considerations. The PEP is a living document and shall be updated to capture changes to project systems, processes, procedures, and personnel. The FPD, program manager, NA-APM, and PME will approve scope changes in accordance with the change control thresholds in the approved PPEP.
- (4) Award and Administer Design Contracts/IAs. Design management plans should be developed for all projects along with a design cost target. NA-APM or its agent awards design contracts, work authorizations, and/or IAs to support project requirements. Close coordination is expected between contracting staff across the NNSA enterprise to ensure successful outcomes and to ensure NNSA's interests are maintained from a business and procurement standpoint during the award and administration of contracts/IAs for NNSA capital asset projects.
- (5) Complete Project Design. After the Project Baseline is approved, FPD completes the project definition/design, begins to execute the Acquisition Strategy, and initiates early procurements. For conventional, non-nuclear construction the design can be less than 90% complete prior to CD-2; NA-APM will ensure that adequate definition exists to provide a budget quality cost and schedule estimate for a CD-2 Performance Baseline. Nuclear construction projects shall comply with design safety requirements of DOE-Standard (STD)-1189, *Integration of Safety in the Design Process*, and DOE O 413.3 project management processes. Projects designated as Hazard Category 1, 2, or 3 nuclear facilities shall achieve at least 90% design maturity before CD-2.

e. Pre CD-3: Approve Start of Construction Execution.

- (1) Award Construction Contracts/IAs. NA-APM or its agent awards construction contracts, work authorizations, and/or IAs to support project requirements. Close coordination is expected between contracting staff across the NNSA enterprise to ensure successful outcomes and to ensure NNSA's interests are maintained from a business and procurement standpoint during the award and administration of contracts/IAs for NNSA capital asset projects.
- (2) Plan for Site Integration. The FPD, the Program Office, and the Field Office, through the IPT, will establish a plan for site integration. Planning for site integration involves identifying site interface issues and infrastructure requirements in order to mitigate barriers to construction

execution. Clear organizational interface and responsibilities need to be documented and agreed upon by all involved parties, as codified in the PEP, Commissioning Plan, and Startup Plan.

- (3) Manage the Project Baseline. The FPD monitors and evaluates the progress of a project through CD-4 by evaluating performance against cost, schedule, and scope. NA-APM monitors performance through monthly meetings, and invites representatives from the Program Office, Field Office, and other Headquarters elements to attend to maintain situational awareness of project performance. If there is a new requirement that results in a change to the cost, schedule, or scope, the FPD manages changes to the baseline in accordance with the change control thresholds in the PEP.

f. Pre-CD-4: Approve Start of Operations or Project Completion.

- (1) Manage Construction Contracts/IAs. NA-APM or its agent oversees and/or manages construction services through contracts and/or IAs to achieve the project baseline.
- (2) Manage Site Integration Issues. FPD takes the lead role in managing any site integration issues, in support of construction activities, with the Program/Field Office. The Chief of Defense Nuclear Safety is responsible for ensuring DOE-STD-1189 is integrated into the project. The Field Office is responsible for approving the Documented Safety Analysis and the Safety Evaluation Report. Office of Defense Nuclear Security (NA-70) is responsible for ensuring security is integrated into the project.
- (3) Prepare for Transition to Operations. In close coordination with the Field Office, the FPD is responsible for developing and managing startup, turnover, and closeout plans in accordance with DOE O 413.3, which includes, but is not limited to: [Checkout, Testing, and Operations Acceptance](#); completing a [Transition to Operations Plan](#); performing final project inspections; conducting a commissioning evaluation; and preparing an [Operational Readiness Review, or Readiness Assessment, or Readiness to Operate Assessment](#). The Program/Field Office involvement in these activities is essential for project success.

g. Post-CD-4: Project Closeout.

- (1) Accept Project for Operations. The Program and/or Field Office verify the mission need and project requirements are met and accept the project for operation in accordance with the PEP.
- (2) Turnover to Operations and Conduct Closeout Activities. Upon acceptance, the FPD continues to provide monthly project reviews with all IPT members until closeout activities are completed. This includes

completing any punch list items, managing warranty issues, completing contracts/IAs, and conducting closeout activities.

- (3) Project Closeout. The FPD prepares the project documents for PME approval, schedules the ESAAB or ESAAB-E, and officially closes the project out in the Department's Project Assessment and Reporting System.

7. RESPONSIBILITIES.

- a. Administrator approves the establishment of a PMO.
- b. Office of Cost Estimating and Program Evaluation Office (CEPE). CEPE advises the Administrator on policies and procedures for cost analysis, estimation, and AoAs. It conducts the independent review of the AoA and provides a memorandum to the Administrator and the PME on the sufficiency of the AoA. CEPE also reviews TRAs as required for applicable projects and documents the results of the review in an evaluation memorandum.
- c. Office of Safety, Infrastructure and Operations (NA-50). NA-50 enables safe operations, ensures effective infrastructure, and provides enterprise services to meet the 21st century Nuclear Security Enterprise needs. It is responsible for working with the FPD in integrating safety into the design of nuclear construction projects and ensuring DOE-STD-1189, *Integration of Safety in the Design Process*, is implemented for Hazard Category 1, 2, and 3 nuclear facilities. NA-50 will also provide Environmental, Safety & Health, Quality Assurance, and Nuclear Safety technical experts to support NNSA's Independent Project Peer Reviews.
- d. Office of Defense Nuclear Security (NA-70). NA-70 develops and implements NNSA security programs to protect, control, and account for nuclear materials, information, and facilities across the nuclear security enterprise. NA-70 ensures the Field Office security representatives to the IPT implement DOE's security orders and policies.
- e. Office of Acquisition and Project Management (NA-APM). NA-APM provides overall direction, strategic guidance, and management with respect to the acquisition and management of capital asset projects and ensures that the NNSA implements all applicable Federal and departmental acquisition policies and regulations. NA-APM assumes the lead role in the execution of the project starting with the approval of CD-1, through the approval of CD-4 to include, but not limited to: developing the project execution documentation based on the selected alternative for the project; and developing and administering the acquisition strategy and procurement plan through awarding and managing design and construction contracts/IAs to achieve the project baseline. NA-APM is a member of the PMRC, and coordinates projects greater than \$100M with the PMRC. NA-APM is responsible for drafting the FPD appointment memoranda,

PME delegation memoranda, all CD approval memoranda, and obtaining subsequent approvals throughout the life of the project.

- f. Office of Management and Budget Office (NA-MB). NA-MB ensures funds for NA-APM products and services come from the sponsoring Program Offices' appropriated funds, the details of which are to be developed in accordance with NNSA's corporate Planning, Programming, Budgeting, and Execution (PPBE) process. NA-MB ensures programs comply with Department Orders, and including DOE O 413.3, in the Fiscal Year Congressional budget process. NA-MB is also represented on the AoA Steering Committee.
- g. Office of Project Analysis, Oversight and Review. The Office of Project Analysis, Oversight and Review implements NNSA's peer review policy and conducts independent project reviews and independent cost reviews from CD-0 through CD-4, in accordance with DOE/NNSA requirements. This office provides feedback independent of NA-APM or the Program Office through direct lines of communication to the Principal Deputy Administrator. Serves as a member of the PMRC, and briefs the PMRC on its independent project reviews.
- h. Program Office. The Program Office leads the development of the MNS and establishes the project requirements through the PRD. The Program Office is responsible for leading the AoA process in accordance with BOP-06.03. The Program Office is responsible for developing the budget requests and funding capital asset projects governed by DOE O 413.3. Upon project completion, the Program Office assumes responsibility for oversight of operations of the completed project in accordance with Beneficial Occupancy Date guidance and verifies that the mission need has been met.
- i. Field Office. The Field Office is responsible for approving the Documented Safety Analysis and the Safety Evaluation Report. Upon project completion, the Field Office assumes responsibility for oversight of operations of the completed project in accordance with Beneficial Occupancy Date guidance and verifies that the mission need has been met.
- j. Project Management Offices (PMOs). If approved by the Administrator, PMOs are established for MSA projects, defined as projects with TPC equal to or greater than \$750M. The PMO is staffed with project management, contracting, quality assurance, and technical SMEs to ensure sufficient oversight is provided in accordance with the DOE Guide (G) 413.3-19, *Staffing Guide for Project Management*. The PMO Director provides overall direction, strategic guidance, and management of the project office in performance of all functions necessary to deliver the project in accordance with its original approved performance management baseline. The PMO Director is required to have the appropriate acquisition and project management training, experience, and certification level to ensure a sound understanding of the FAR and a broad knowledge base from which to communicate performance expectations between contracting officers and

contractors so that NNSA successfully delivers on the expectations identified in its IAs, contracts, and work authorizations.

- k. Federal Project Director (FPD). The FPD leads the IPT comprised of Program Office, Field Office, NA-APM, and contractor personnel, and serves as the single point of contact responsible for the overall execution of the project from CD-1 through CD-4. The FPD evaluates and verifies reported progress, makes projections of progress, and notifies senior management whenever project performance indicates a likelihood of performance baseline deviation. The FPD serves to champion the project cost, schedule, performance, and scope baselines, and ensures that the project receives adequate resources and expertise in all necessary areas.
- l. Project Management Risk Committee (PMRC). For projects greater than \$100M, the PMRC reviews peer review plans and receives debriefs from Independent Peer reviews. The PMRC receives briefs on Independent Cost Estimates (ICEs) and External Independent Reviews (EIRs), and makes recommendations to the Energy Systems Acquisition Advisory Board.

8. REFERENCES.

- a. FAR and OFPP guidance.
- b. OMB Circular A-11 for Capital Acquisition Projects and its associated Capital Programming Guide.
- c. DOE Acquisition Regulations (DEAR).
- d. DOE Secretarial Memoranda, Improving the Department's Management of Projects, December 1, 2014.
- e. DOE Secretarial Memoranda, Project Management Policies and Principles, June 8, 2015.
- f. DOE O 413.3B Chg 2 (PgChg), *Program and Project Management for the Acquisition of Capital Assets*, dated 5-12-16.
- g. DOE G 413.3-19 Chg 2 (admin Chg), *Staffing Guide for Project Management*, 10-22-15.
- h. DOE-STD-1189-2008, *Integration of Safety in the Design Process*, 3-31-08.
- i. BOP-03.07, *Analysis of Alternatives*, dated 3-14-16.
- j. BOP-06.03, *Independent Cost Estimates Procedures*, dated 2-27-14.
- k. BOP-06.04, *Project Reviews*, dated 11/18/14.

- l. BOP-50.001A, *Energy Systems Acquisition Advisory Board (ESAAB) Equivalent Process*, dated 7-28-11.
- m. NAP-28, *Responsibilities for Independent Cost Estimates*, dated 2-24-16.
- n. Technology Readiness Assessments guidance.
- o. NA-APM Data Item Descriptions, <https://nnsaportal.energy.gov/collab/na-apm/NA-APM-20/Pages/NAAPMDIDs.aspx>.
- p. NA-APM Memoranda, *Beneficial Occupancy Date Guidance for National Nuclear Security Administration Construction Projects*, dated 5-31-13.

9. ACRONYMS AND ABBREVIATIONS

AoA	Analysis of Alternatives
BOP	Business Operating Procedure
CD	Critical Decision
CE	Chief Executive
CEPE	Office of Cost Estimating and Program Evaluation
DEAR	DOE Acquisition Regulations
DOE	Department of Energy
DOE-PM	DOE Office of Project Management Assessment and Oversight
ESAAB	Energy Systems Acquisition Advisory Board
FAR	Federal Acquisition Regulation
FPD	Federal Project Director
GAO	Government Accountability Office
IA	Inter-Agency Agreement
IPT	Integrated Project Team
MNS	Mission Need Statement
MSA	Major System Acquisition
NA-50	Office of Safety, Infrastructure and Operations

NA-APM	Office of Acquisition and Project Management
NA-APM-20	Office of Enterprise Project Management
NA-MB	Office of Management and Budget
NNSA	National Nuclear Security Administration
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget
PEP	Project Execution Plan
PME	Project Management Executive
PMO	Project Management Office
PMRC	Project Management Risk Committee
PPBE	Planning, Programming, Budgeting, and Evaluation
PPEP	Preliminary Project Execution Plan
PRD	Program Requirements Document
ROM	Rough Order of Magnitude
STD	Standard
TPC	Total Project Cost

10. CONTACT. Office of Enterprise Project Management, 202-586-6567.

BY ORDER OF THE ADMINISTRATOR:



Robert B. Raines
Associate Administrator
for Acquisition and Project Management

Appendices

Appendix 1: Project Process - Overview of Roles and Responsibilities

Appendix 2: Project Process - Key Critical Decision Phase Interfaces

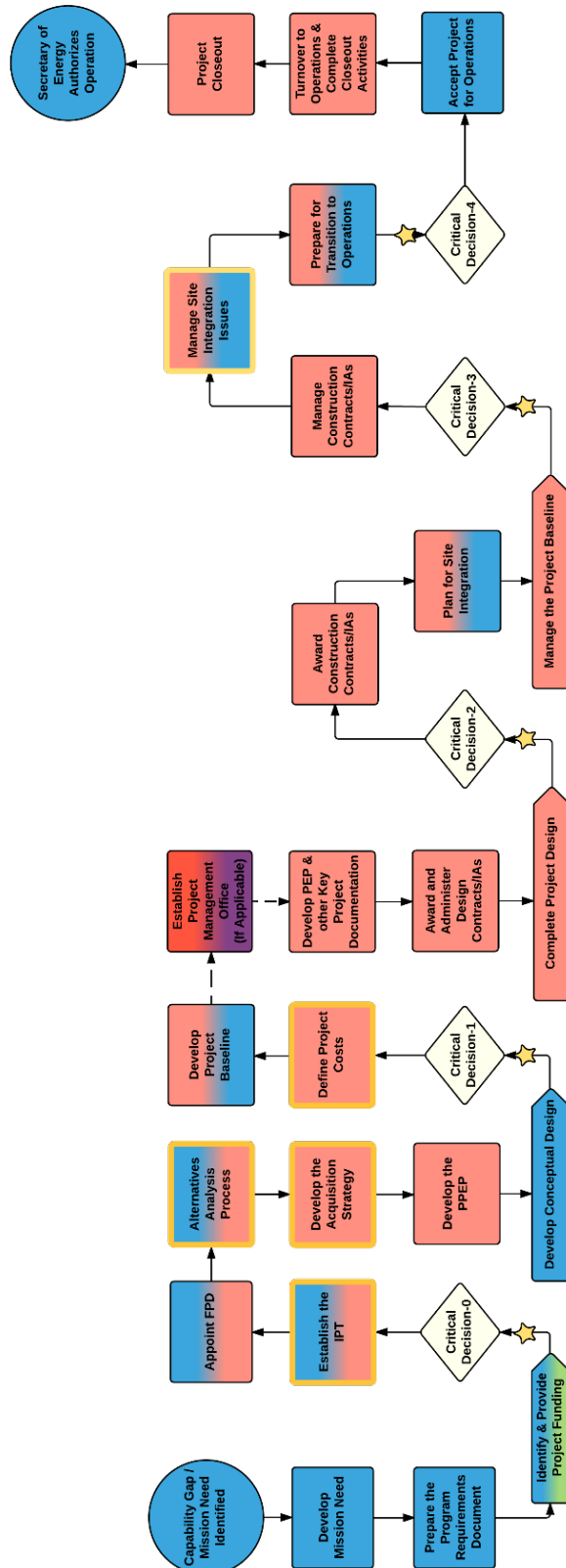
APPENDIX 1: PROJECT PROCESS – OVERVIEW OF ROLES AND RESPONSIBILITIES*

<u>Project Phase</u>	<u>NA-APM Roles & Responsibilities</u>	<u>Program and/or Field Office Roles & Responsibilities</u>
Pre CD-0: Approve Mission Need	<u>Support:</u> Be aware of the need for a capital asset project and appoint a Project Integrator to provide assistance, as needed. Review and support the development of the cost range.	<u>Lead:</u> Generate mission need and program requirements. Finalize the PRD. Identify and provide funding. Establishes the Rough Order of Magnitude cost range.
Pre-CD-1: Approve Alternative Selection and Cost Range	<u>Lead:</u> Develop the acquisition strategy and procurement plan for each alternative. Identify certified FPD. Develop the PPEP. <u>Support:</u> Assist in AoA development and analysis. Respond to program directed changes and alternative selection. Assign acquisition professionals to the IPT. Develop cost and schedule range.	<u>Lead:</u> Establish and manage the IPT. Conduct the AoA. Develop conceptual design. Develop project budget and supporting Project Data Sheets.
Pre-CD-2: Approve Performance Baseline	<u>Lead:</u> Define cost based on approved scope and schedule. Award design contracts/IAs to support project requirements. Develop the PEP. Complete project design and begin/manage design and development of project execution documentation on the selected alternative for the project. Develop project baseline. Prepare request to the PME for approval of project baseline. <u>Support:</u> Incorporate any changes in project requirements identified by the Program Office.	<u>Lead:</u> Manage/adjust project requirements, as necessary, to meet mission needs. Concur with proposed baseline and manage/establish project budget accordingly. <u>Support:</u> Review design deliverables. Assist in the preparation and development of the PEP and acquisition strategy and ultimately provide concurrence/approval of the final products.
Pre-CD-3: Approve Start of Construction Execution	<u>Lead:</u> Initiate acquisition award construction contracts/IAs. Through IPT, identify and plan for site integration. Initiate early procurements. Manage project baseline. <u>Support:</u> Work with Program/Field Office to mitigate barriers to construction execution. Develop and adjust requirements to accommodate any changes to the project identified by the Program Office. Provide information necessary for trade-off analysis and decisions.	<u>Lead:</u> Make trade-off decisions during design that impact project requirements and/or costs. Identify any changes required to meet mission needs. Identify site integration issues. Provide funding in accordance with approved baseline. <u>Support:</u> Participate in monthly project reviews to ensure project requirements are met.
Pre-CD-4: Approve Start of Operations or Project Completion	<u>Lead:</u> Manage construction contract(s)/IAs to achieve project baseline. Manage site integration issues. Identify and request baseline changes for any unforeseen changes or project requirement changes identified by the Program/Field Office. Perform project final inspections and commissioning evaluation. Initiate and execute pre-operational readiness evaluations. Implement approved changes identified by the Program/Field Office.	<u>Lead:</u> Identify any changes required to meet mission needs/project requirements. Approve Documented Safety Analysis and Safety Evaluation Report. Manage project budget. Initiate plan for future operations of completed project. <u>Support:</u> The Chief of Defense Nuclear Safety is responsible for ensuring DOE-STD-1189 is integrated into the project. The Field Office is responsible for approving the Documented Safety Analysis and the Safety Evaluation Report. NA-70 is responsible for integrating security into the project.
Post-CD-4: Project Closeout	<u>Lead:</u> Turnover completed project to operations. Complete any punch list items and manage warranty issues. Complete contract(s) and project closeout activities.	<u>Lead:</u> Evaluate/accept project for operations, and verify mission need/requirements are met.

*This is a summary with specific roles and responsibilities outlined in accordance with the Project Execution Plan.

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APPENDIX 2: PROJECT PROCESS - KEY CRITICAL DECISION PHASE INTERFACES



Program Office
 NA-APM
 NA-MB
 Project Management Office
 Other NNSA/DOE Office Involvement

Primary Course of Action
 Major System Acquisition Projects

NA-APM-1.1 Independent Project Review

Blended colors signify a cooperative effort, with the top color representing the lead role and the bottom color representing the support role.