BUSINESS OPERATING PROCEDURE

BOP-50.001A

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Energy System Acquisition Advisory Board (ESAAB) Equivalent Process

NATIONAL NUCLEAR SECURITY ADMINISTRATION
Office of Acquisition and Project Management

AVAILABLE ONLINE AT:
http://hq.na.gov

INITIATED BY:
Office of Enterprise Project Management

Energy System Acquisition Advisory Board (ESAAB) Equivalent Process

1. PURPOSE.

   a. This Business Operating Procedure (BOP) reflects the National Nuclear Security Administration (NNSA) current requirements, understandings, and expectations relating to the implementation of the Energy Systems Acquisition Advisory Board (ESAAB) process as specified in the current version of Department of Energy (DOE) Order (O) 413.3B, *Program and Project Management for the Acquisition of Capital Assets*. It covers both the NNSA ESAAB Equivalent process and the DOE ESAAB process up to and through the Preparatory (Pre) ESAAB, after which point the DOE Office of Engineering and Construction Management (OECM) acquires the Departmental ESAAB process lead for Major System projects.

   b. This document specifies the procedures that shall be followed by Program Offices (POs) with regard to the DOE ESAAB and the NNSA ESAAB Equivalent (ESAAB-E) processes. NNSA Site Offices will develop and implement procedures that will govern Field ESAAB Equivalent processes. These procedures are to meet the ESAAB requirements in DOE O 413.3B, and the supporting expectations in the related guides under the DOE G 413.3-XX series.

   c. This document provides assurance for:

      (1) Line management involvement and accountability for project performance,

      (2) Acquisition Executive (AE) oversight to the NNSA acquisition process for construction projects greater than $50 million, and

      (3) Effective integration of safety and project management practices as early in the project as is practicable.

2. CANCELLATION. BOP-50.001, *National Nuclear Security Administration Energy Systems Acquisition Advisory Board Equivalent Process*, dated August 7, 2006.

3. APPLICABILITY.

   a. NNSA Applicability. The requirements identified in this BOP are mandatory for all NNSA Elements (unless identified in the exclusions paragraph), for all capital asset acquisition projects having a Total Project Cost greater than or equal to $50 Million. The principles as set forth in this BOP apply to all projects with a Total Project Cost greater than or equal to $5 Million.

(1) While all requirements are to be addressed, the approach to meeting the requirements should be tailored consistent with the risk, complexity, visibility, cost, safety, security, and schedule of the project.

(2) Projects meeting certain criteria may request, at Critical Decision (CD)-1, that the AE authority for all future CDs be delegated to the Site Office. The AE determines whether or not to approve this delegation. Projects of low risk, low monetary value and that are non-controversial (e.g. simple civil projects) may request a CD-0/CD-1 approval from the AE. These projects must have an assigned Federal Project Director (FPD), a developed cost range with life cycle cost, an alternative analysis and a Project Execution Plan (PEP) with the project strategy and a tailoring plan at the time of the CD-0/CD-1 ESAAB-E. The PEP should adequately describe the strategy for project reporting and project reviews. Projects requesting a combined CD-0/CD-1 may request AE delegation at the ESAAB-E. In order to qualify to make this request, projects must meet the following minimum requirements:

- Top-end of the CD-1 estimated cost range has a Total Project Cost (TPC) less than $100M.
- Project is not a major modification to or a new Hazard category 1, 2 or 3 nuclear facility.
- Project can reasonably be classified as a low-risk, non-controversial project.
- Site must demonstrate a favorable track record for the successful completion of projects of similar size and complexity.

(3) Whether or not authority is delegated, all projects must follow the mandatory requirements included in DOE O 413.3B. The PEP will address the tailoring of the IPR, project reporting and yearly Peer reviews to meet the objectives of DOE O 413.3B. In addition, CD, BCP, IPR and Quarterly Project Review (QPR) documentation will be readily available to the Office of Enterprise Project Management (NA-APM-20). For CDs for which AE authority has been delegated to the site, Site Office specific ESAAB Equivalent procedures shall be followed.

(4) NNSA Major System (MS) projects may incur Level 1 Baseline Change Proposals (BCP) requiring disposition at the NNSA Program Office (PO) level (i.e. at a level between the SAE and project's FPD level). In these situations, the MS project can utilize the NNSA ESAAB Equivalent review process, or utilize any PO established Level 1 Change Control Board (CCB) for the BCP review for approval. These PO-established Level 1 CCB's should be supplemented with other disciplines from the

NNSA ESAAB Equivalent Board (i.e. Nuclear Safety, General Counsel, Procurement, etc.) to meet the DOE O 413.3B review requirements.

b. Exclusions.

(1) Financial Assistance awards (grants and cooperative agreements) are excluded, which are covered under 10 CFR 600.

(2) Alternative finance projects post-CD-1.

c. Equivalency. In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at 50 USC sections 2406, 2511 and to ensure consistency throughout 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.

4. BACKGROUND. As DOE projects proceed from concept through design, construction, and eventually start of operations, DOE O 413.3B requires that at the end of each phase for subject projects, the AE approve the project's continuation into the next phase. These approval points in the acquisition process are named 'Critical Decisions'. The Critical Decision (CD) authority resides with the Secretarial Acquisition Executive (SAE) for Major Systems (MS) projects and with an AE (Program Secretarial Officer or designated PO AE) for non-Major Systems projects. In addition to CDs, Level 0 Baseline Change Proposals (BCPs) and Level 1 BCPs are also subject to decision review for approval by the SAE and by the AE for MS projects and Non-MS projects, respectively. ESAABs and PO (i.e. NNSA ESAAB-Equivalent) Acquisition Advisory Boards are required by DOE O 413.3B to advise the AE's on the CDs and BCPs that are presented before them for disposition.

5. REQUIREMENTS.

a. Integration of Safety in Design: Hazard Category 1, 2, and 3 nuclear projects are required to follow DOE Standard 1189-2008, *Integration of Safety into the Design Process* and DOE O 420.1B, *Facility Safety*. At Critical Decision points, the ESAAB process ensures that the projects and their documentation address, at a minimum, the safety requirements included in these policies.

b. Scheduling and Coordination.

(1) The FPD, with the concurrence of the PO, will request an ESAAB or an ESAAB Equivalent Board review for the approval of a CD or a BCP. This ESAAB Equivalent Board request will follow the format in Attachment 2 and be forwarded to the NNSA ESAAB Equivalent Secretariat (NA-APM-20) a minimum of three weeks[1] before the requested NNSA ESAAB Equivalent Board review: Note that 1 month is recommended to adequately allow for resolution of any ESAAB-Equivalent related issues.

[1]A three week minimum lead time is required prior to an ESAAB Equivalent review in that a week and a half is needed before the Preparatory (Pre-) ESAAB Equivalent review for members to review the source materials and prepare questions for the Pre ESAAB review. In addition, an absolute minimum of one week (and often two weeks) is necessary between the Pre ESAAB Equivalent and the ESAAB Equivalent Board meeting to resolve any questions and issues arising from the Pre ESAAB and for the project/program to Pre-Brief the Acquisition Executive on the upcoming ESAAB. These time frames demand a three-week lead time before the actual ESAAB Equivalent Board event for the submission of the project's ESAAB Equivalent request.

(2) For a full DOE ESAAB Board review request, allow a minimum of six weeks: Note that an eight week lead-time is often required. Full Departmental ESAAB Board Reviews are presided by the Secretarial Acquisition Executive (SAE) (i.e. the Deputy Secretary of Energy) and the ESAAB Board Review meeting itself is only scheduled after a Pre-ESAAB is conducted by NNSA to determine the merits and the readiness of the ESAAB request to proceed. The DOE Office of Engineering and Construction Management (OECM) is the Departmental ESAAB Secretariat, and as a participant of the NNSA Pre-ESAAB review session, makes this determination regarding the merits/readiness of the subject CD or BCP action to proceed forward in the ESAAB review process.

(3) To support both the DOE ESAAB and NNSA ESAAB Equivalent process, a Pre ESAAB / ESAAB-E review meeting must be scheduled. An absolute minimum of one week is required before the Pre-ESAAB event for the review members to be able to review the project's ESAAB materials and to prepare questions for the Pre ESAAB meeting.

(4) A complete set of ESAAB / ESAAB-E review materials must be submitted to the NNSA ESAAB Equivalent Secretariat for distribution at least one week prior to the Pre-ESAAB Equivalent review meeting.

(5) For an NNSA level ESAAB Equivalent Board review, the NA-APM-20 ESAAB Equivalent Secretariat will coordinate with the AE for scheduling the ESAAB-Equivalent board meeting.

c. <u>Review and Comment Resolution</u>

(1) The major facet of the NNSA ESAAB Equivalent process is the review and comment resolution phase. In this phase the ESAAB Equivalent members evaluate the project request and formulate their comments, issues, and recommendations. The goals of this phase are to:

- Assure that the project is in compliance with programmatic, safety, environmental; security, legal, procurement, and departmental requirements;

- Assure that those requirements have been integrated into the design and execution of the project;
- Resolve, prior to the ESAAB Equivalent meeting with the AE, as many of the comments and the issues as possible that were raised in the Pre-ESAAB Equivalent process; and
- Identify unresolved comments and issues that will need to be raised to the ESAAB Equivalent Board for decision.

(2) The materials provided will be the requested action documents (i.e. CD request or BCP), results from any external and/or internal reviews since the last ESAAB Equivalent meeting, Corrective Action Plans, and other materials that support the proposed decision or BCP.

(3) Attachment 3 refers to the required review materials for CDs 0 through 4 which are listed in Table 2, CD Requirements, in DOE O 413.3B, and on the NA-APM-20 website (http://hq.na.gov/pmnet). Suggested project preparation topics for CDs are also available on the NA-APM-20 website.

(4) The board members and the Secretariat (see Attachment 1) will examine the project materials and provide directed questions/comments to the FPD and PO. Board members evaluations should identify project inadequacies, with emphasis on the following:

- Areas where the project is not in compliance with programmatic, safety, environmental, security, legal, procurement, and departmental requirements or where requirements have not been addressed.
- Areas where the project has not demonstrated that the requirements have been integrated into the design and execution of the project.
- Items to be corrected to support project success.
- Critical findings with supporting documentation that includes cost or other impacts that are a result of any associated recommendations or project reviews.
- Recommendations whether or not the project should proceed, and any additional requirements needed as conditions to proceed.

d. Preparatory (Pre) ESAAB Equivalent Review meeting.

(1) For both the DOE ESAAB process for MS projects and for the NNSA ESAAB Equivalent process for non-MS projects, a Preparatory (Pre) ESAAB or ESAAB-E review meeting will be held to identify issues of concerns and areas needing additional information or action, prior to conducting the ESAAB or ESAAB-E Board review.

(2) For non-MS projects, these Pre-ESAAB review meetings will be staffed with representatives of the NNSA ESAAB Equivalent Board.

(3) For MS projects, the staff members of the DOE ESAAB Board will be invited to participate in a combined Pre-ESAAB Review meeting. In particular, OECM as the ESAAB secretariat must be in attendance and its presence may affect the timing and scheduling availability of this Pre-ESAAB meeting.

(4) A conference call will be held with the FPD, the other Integrated Project Team (IPT) members in the field, PO, Board staff, and the Secretariat, to:

- Review the project's ESAAB-Equivalent request and supporting documentation,
- Discuss the comments/questions of the board members, and
- Set a schedule for resolving the outstanding issues/requirements.

(5) The Pre-ESAAB review will be recorded. The NNSA ESAAB Secretariat will generate draft meeting minutes from notes and the recording. These minutes will identify any Action Items resulting from the review and comment process.

(6) The FPD and PO will work with the board members and their staffs to answer inquiries and resolve issues prior to the formal ESAAB Equivalent Board meeting.

e. <u>NNSA "Paper/Tailored ESAAB-E" Option.</u>

(1) A "Paper" ESAAB is a tailored approach to streamlining the ESAAB process for projects that are low risk, low monetary value and non-controversial. Under DOE O 413.3B, the role of the ESAAB is to advise the AE; however, in some cases, this advice can be provided without holding a formal meeting of the ESAAB. In certain circumstances for low risk, low monetary value and non-controversial ESAABs, the "Paper" ESAAB is a more efficient and effective path to achieve the required coordination and approval without convening a formal meeting of all ESAAB members.

(2) For SAE ESAABS:

- All issues that are Program-specific, are non-controversial, and can be resolved with the SAE without convening a formal ESAAB;
- The PO requests that OECM conduct a "paper" ESAAB in lieu of a formal ESAAB;
- OECM has determined that a "Paper" ESAAB is appropriate and which offices to coordinate action.
- At a minimum, all "Paper" ESAABs will be coordinated with the Chief Financial Officer and the Office of General Counsel with the expectation of expeditious concurrences.

(3) For NA-1 ESAABS for non-controversial decisions where the NNSA Administrator is the AE, a "Paper/Tailored" ESAAB-E allows for a smaller, core group of ESSAB-E members to meet with the NNSA Administrator.

(4) The NNSA "Paper/Tailored" ESAAB Equivalent process utilizes the Pre-ESAAB Equivalent Review meeting to identify issues and confirm that:

- Any issues that are Program-specific, are non-controversial, and can be resolved with the AE without convening a formal ESAAB-Equivalent;
- The NA-APM-20 ESAAB-Equivalent Secretariat will determine if the "Paper" ESAAB Equivalent process is appropriate and which offices to coordinate the action.

(5) After the Pre-ESAAB Equivalent, the "Paper/Tailored" ESAAB Equivalent process can be concluded with a short meeting with the AE that includes relevant parties, instead of a holding a full ESAAB Equivalent Board review. This path may include multiple meetings with the AE, such as an initial to discuss the remaining issues and a final meeting to resolve those issues.

(6) Alternatively, the "Paper/Tailored" ESAAB Equivalent process can also proceed to conclusion through the paper correspondence process, with the preparation of a Decision Memorandum package with supporting documents that is routed through relevant parties for concurrence and then onto the AE for final approval determination. Throughout this "Paper" ESAAB process, the NNSA ESAAB Equivalent Secretariat is to be the active center-point and is to oversee the process between involved parties: 1) the project/program area, 2) the ESAAB-Equivalent Board members, and 3) the AE. It is incumbent upon the project/program to keep the NNSA ESAAB Equivalent Secretariat fully apprised of related actions.

f. Pre-Briefings to the Acquisition Executive.

(1) The purpose of the Pre-Brief is to prepare the SAE/AE for the upcoming ESAAB / ESAAB-E Board Meeting. If the NA-APM- Associate Administrator is the AE, then a Pre-Brief is mandatory. This Pre-Brief is the responsibility of the PO. The PO is to make the scheduling arrangements with the AE for this briefing and is to invite the NNSA ESAAB Secretariat. It is recommended that the PO schedule the Pre-Brief to the AE approximately 1 week before the ESAAB Equivalent review. At the discretion of the AE, additional project and program representatives may be required at this briefing, including additional ESAAB Equivalent board members. The PO shall present the project status and issues, and obtain additional feedback on the presentation prior to the ESAAB Equivalent Board meeting.

(2) The NNSA Administrator is a senior member of the ESAAB board and the NA-APM Associate Administrator serves as a back-up to the NNSA Administrator in this ESAAB Board position. Given other potential last-minute conflicts on the Administrator's schedule, it is important to have the NA-APM Associate Administrator well informed, along with the NNSA ESAAB Equivalent Secretariat, to ensure adequate ESAAB representation. For a Departmental ESAAB of an NNSA project, an initial Pre-Brief by the PO is required for the NNSA Administrator. NA-APM and NA-APM-20 (and CDNS for nuclear projects) are required attendees of the Administrator Pre-Brief. This Pre-Brief should be scheduled approximately one week before the ESAAB, and not less than three days before, to allow for any additional coordination or any potential Action Items that may be necessary. The Pre-Brief presentation materials must be provided to the NNSA ESAAB Equivalent Secretariat two days prior to the Pre-Brief.

(3) For a non-NNSA ESAAB, the NNSA ESAAB Secretariat will pre-brief NA-APM who in turn will brief the NNSA Administrator.

(4) Additional Pre-Briefs along the project or program's chain of command will be the responsibility of the subject PO. Again, invitations to the NNSA ESAAB Equivalent Secretariat must occur.

g. Preparation of the Decision Memorandum by the NNSA Program Office (PO).

(1) After the Pre-ESAAB, the PO is to prepare a Decision Memorandum for the AE to sign at the ESAAB-Equivalent Board meeting. The Decision Memorandum is to describe the decision requested and incorporate the key information associated with the CD or the BCP. Specifically:

- For CD-0, Statement of Mission Need
- For CD-1, the Alternative Selected, the Cost Range and the FPD appointment.
- For CD-0/CD-1, Statement of Mission Need, the Alternative Selected, the Cost Range, the FPD appointment and the Tailoring Strategy.
- For CD-2, the Performance Baseline or Cost and Schedule Baseline addressing the Total Project Costs (TPC) including the portion that is the Total Estimated Cost (TEC), the CD-4 completion date, the amount of contingency (cost and schedule), the amount of management reserve, and Key Performance Parameters.
- For CD-4, the CD-4 document shall state whether the project has met all key performance parameters (and what they are) and the approved CD-4 date and TPC. The CD-4 document should also state and discuss if there are any known outstanding liabilities that

could affect the project's TPC after the approved CD-4 date such as contractor claims, etc.

(2) Examples of Decision Memorandum are provided in Attachment 2.

(3) If the modifications are substantial, the PO can utilize the ESAAB-E meeting minutes, prepared by the ESAAB-Equivalent Secretariat, as a material source for the modifications to the DM. The ESAAB-Equivalent Secretariat can assist the PO in identifying the core relevant parties that should be included in the DM prior to its submission to the AE for approval (CDNS should be included for all nuclear projects). The only required concurrence is NA-APM-20 as the ESAAB-Equivalent Secretariat; other relevant parties may be required as directed by NA-APM-20. (CDNS should be included for all nuclear projects)

(4) For MS projects, the Office of Engineering and Construction Management will prepare the decision memorandum for the Under Secretary's (S-2) signature. PO, Project Team, and Secretariat will be asked for input in the drafting of the memorandum.

h. ESAAB Equivalent Board Meetings.

(1) After the review and comment phase has been completed, the FPD and PO will confirm their intent to continue with the ESAAB Equivalent meeting with the Secretariat. The Secretariat will make final meeting preparations, distribute the project presentation to the board members, and coordinate with the FPD on any remaining issues.

(2) At the ESAAB-Equivalent meeting, the NNSA ESAAB Equivalent Secretariat representative will make a short introductory statement for the record as a call-to-order for the ESAAB Equivalent Board and will update the Board on any developments that may affect the review. The Secretariat will also record the proceedings of the meeting to support the generation of meeting minutes. The FPD (and/or a PO member) will then present the Board with the project to support the requested decision. The presentation should be brief and emphasize:

- Programmatic issues;
- Basic overview of the project;
- Actions taken to assure that the project has addressed programmatic, safety, environmental, security, legal, procurement, and departmental requirements;
- Actions taken to assure that the requirements have been appropriately integrated into the design and execution of the project;
- Comment / issue resolution including any Corrective Action Plan (CAP) items from any applicable reviews such as an Independent

Project Reviews (IPR). Note: Any unresolved issues that requires action by the AE should be presented at this time; and

- The decision that is being requested of the AE.

(3) See Attachment 4 for outline of ESAAB Equivalent presentation.

(4) During the review, comments are offered by the ESAAB equivalent Board members or other participants. At the conclusion of the presentation, the AE will issue a verbal determination regarding the requested decision and the ESAAB board will adjourn.

(5) Within one week of the ESAAB Equivalent event, the Secretariat will develop draft meeting minutes intending to capture all significant topics of discussion, decisions, issues, and action items. These draft meeting minutes will be distributed via email to all attendees to capture all significant comments raised in the ESAAB-Equivalent Board meeting.

6. RESPONSIBILITIES.

a. Board Membership Areas of Expertise Requirements.

(1) The following areas of expertise must be reflected in the membership for the NNSA ESAAB Equivalent Board. Each area of expertise must have a designated principal board member. Line item projects below $100 million that have been delegated to Site Office Managers will be reviewed by a similar board that constitutes the Site Office level ESAAB Equivalent Board. (The NNSA Board membership is listed in Attachment 1).

(2) Functional areas of expertise include: Budget, Environmental, Legal, Procurement, Project Management, Nuclear Safety, Security, and other areas as required.

b. Acquisition Executive – Board Chair.

(1) Establishment of the AE for a particular project is based on the criteria stated in DOE O 413.3B. If the AE authority is delegated to a Site Office Manager, then the Site Office must implement an 'ESAAB Equivalent type' Board to review decisions that are presented to the Site Manager. The site board will follow the principles of DOE O 413.3B, with board membership and processes tailored to the site and the nature of the projects. Board membership and procedures must be validated by the NNSA ESAAB Equivalent Secretariat, NA-APM-20. Copies of the meeting minutes and decisions rendered must be supplied to the respective PO and NA-APM-20 for documentation purposes.

(2) Presides over ESAAB Equivalent Board (EEB) meetings.

(3) Makes decisions on the disposition of all requested CDs and BCPs.

(4) Assures that:

- The EEB members and project team members fulfill their ESAAB Equivalent process responsibilities,
- The EEB members have taken the appropriate measures to ensure the project is meeting the programmatic, safety, environmental, security, legal, procurement, and departmental requirements,
- These various requirements have been integrated into the design and execution of the project, and

(5) Reviews Corrective Action Plan (CAP) reports on the project undergoing the ESAAB / ESAAB-E review.

c. NNSA Chief of Defense Nuclear Safety (CDNS): The Chief (and staff) is responsible for evaluating nuclear safety issues and providing expert advice to the CTA and other senior officials. For Hazard Category 1, 2, and 3 nuclear facilities not regulated by the Nuclear Regulatory Commission (NRC), or as requested by the CTA or other senior officials for facilities regulated by the NRC, the Chief shall:

(1) For Hazard Category 1, 2, and 3 nuclear projects, the NNSA Chief of Defense Nuclear Safety will be included as a Board member providing specific advice to the AE regarding the effectiveness of efforts to integrate safety into design. This will normally be in the form of a written Project Evaluation prepared by CDNS. If the CDNS cannot attend the ESAAB-E Board meeting, he/she shall provide a representative.

(2) Ensure that Technical IPRs and IPRs, as appropriate, evaluate: 1) the qualifications of IPT members having nuclear safety-related responsibilities, and 2) the effective implementation of DOE-STD-1189-2008 as applicable for design and construction of nuclear facilities.

(3) Ensure that TIPRs and IPRs evaluate the status of project planning to achieve operational readiness. For nuclear facilities, concur on the nuclear safety scope and breadth of TIPRs and IPRs.

(4) Provide a representative for the Pre-ESAAB Equivalent review meeting.

d. NNSA Chief Defense Nuclear Security (NA-70).

(1) For projects with significant security aspects, validate that the federal personnel assigned to the Integrated Project Teams are appropriately qualified and that the level of effort expected from them is appropriate. If NA-70 cannot attend the ESAAB-E Board meeting, he/she shall provide a representative.

(2) Required board member for projects with significant security aspect, providing specific advice to the AE regarding the effectiveness of efforts to integrate security into design.

(3) For projects with significant security aspects, the NA-70 shall provide a representative for the Pre-ESAAB Equivalent review meeting.

e. ESAAB Equivalent Board Members.

(1) NNSA ESAAB Equivalent Board members will act as subject matter experts in the evaluation of the proposed CD or BCP to assure that NNSA and DOE requirements are met and common construction/business practices are followed; and provide effective recommendations and advice to the Acquisition Executive.

(2) Fully evaluate the project for compliance with the requirements in the member's area of expertise (programmatic, safety, environmental, security, legal, procurement, and Departmental requirements).

- Provide timely review of project materials.
- Prepare directed questions/comments on specific project items that need to be resolved as part of the ESAAB / ESAAB-E process. Substantial issues are to be coordinated with the PO and the NNSA ESAAB Equivalent Secretariat, if possible, prior to the Pre-ESAAB / ESAAB-E meeting.
- Work to resolve issues with the program/project area keeping ESAAB-E Secretariat informed, and as necessary, engaged.

(3) Attend all ESAAB Equivalent Board meetings or provide an alternate.

(4) Provide a representative for the member's area to the Preparatory (Pre) ESAAB/ESAAB-Equivalent review meetings.

(5) Provide assurance that relevant requirements have been integrated into the design and execution of the project.

(6) Provide recommendation(s) of disposition and/or further actions to the Acquisition Executive.

f. NNSA Program Office (PO)

(1) Coordinates with the FPD and NNSA ESAAB Equivalent Secretariat to manage the project through the ESAAB Equivalent process.

(2) Works with the FPD and the IPT to assure that the project is in compliance with programmatic, safety, environmental, security, legal, procurement, and departmental requirements and those requirements have been integrated into the design and execution of the project.

(3) Co-signs on request for the DOE ESAAB or for the NNSA ESAAB-Equivalent Board review submitted by the FPD. PO shall insure that all required documents have been signed up to the level of the AE (or PSO, if applicable) such that the approval of the applicable CD or BCP at or in

conjunction with the ESAAB-E process constitutes approval of the documents.

(4) Works with the FPD to prepare the project and related materials for presentation to the board. PO is to ensure the supporting documents for the ESAAB related action are approved at a level one office below that of Acquisition Executive.

(5) Coordinates with FPD and NNSA ESAAB Equivalent Secretariat to schedule meetings.

(6) Works with FPD to answer ESAAB-related inquiries/resolve issues.

(7) Before the ESAAB Equivalent Board review, it is the responsibility of the PO to coordinate with the AE on the upcoming ESAAB-E action. This would include performing any required Pre-brief to the Acquisition Executive on any issues/concerns that have arisen either at the Preparatory (Pre-) ESAAB review meeting, or otherwise related to the forthcoming ESAAB Equivalent Board meeting. This Pre-Brief to the AE is to occur at least two days before the ESAAB-E Board review to allow for any required follow-up directed by the AE.

(8) Prepares the Decision Memorandum for AE signature at the ESAAB–Equivalent Board Meeting. Also ensures that the NNSA ESAAB Equivalent Secretariat is on distribution for the signed Decision Memorandum for use in the NNSA ESAAB Equivalent database/library.

(9) Coordinates the Decision Memorandum with NA-APM-20 and CDNS (where applicable) to capture action items and/or issues resulting from the pre ESAAB and ESAAB-E. Note: For DOE ESAAB reviews the Decision Memorandum is generated by OECM.

(10) When the FPD is not available, the PO presents the proposed CD or BCP to the ESAAB-E Board.

g. Federal Project Director (FPD)

(1) The FPD, as part of the IPT, will prepare the project decision packages, coordinate project responses to board members' comments/questions, and present the information to the AE and the board for consideration.

(2) Works with the IPT and PO to ensure that the project is in compliance with programmatic, safety, environmental, security, legal, procurement, and departmental requirements and those requirements have been integrated into the design and execution of the project.

(3) Obtains the PO concurrence on the request for the DOE ESAAB or for the NNSA ESAAB-Equivalent Board review.

(4) Coordinates preparation of project documents supporting the decision process. The FPD is to work with the PO to ensure that the supporting documents for the ESAAB related action are approved at a level one office below that of Acquisition Executive. (See Attachment 2)

(5) Coordinates with the PO and the NNSA ESAAB Equivalent Board Secretariat to schedule board meeting.

(6) Prepares the Preparatory (Pre-) ESAAB Equivalent and the final ESAAB Equivalent Board presentations.

(7) Presents proposed action at the Pre-ESAAB Equivalent review and to the ESAAB Equivalent Board.

(8) Incorporates comments from the Pre-ESAAB review, supports the PO in preparing the Decision Memorandum for signature by the AE at the ESAAB Equivalent Board meeting.

(9) Works with PO and IPT to respond to ESAAB Equivalent Board questions/requests and resolves issues.

h. NNSA ESAAB Equivalent Secretariat (NA-APM-20).

(1) The secretariat will coordinate the meetings, participate in the ESAAB Equivalent process, advise the acquisition executive on the issues of the project, and assist the AE in disseminating information to and from the meeting.

(2) Coordinates and schedules the Preparatory (Pre-) ESAAB Equivalent review and final ESAAB Equivalent Board review. This includes collection and distribution of related project information prepared by the project or program.

(3) Coordinates with OECM on Departmental ESAAB Board reviews for CDs on MS projects, or for BCPs that require approval at the SAE level.

(4) Offers ESAAB-related improvements/suggestions on project planning and process to the AE, PO, and IPT.

(5) Provides written comments on significant project issues to the AE, PO, and IPT.

(6) Assists the AE on the technical and management significance of issues/lessons learned identified from previous ESAAB and Quarterly reviews of the subject project, or from that of other projects.

(7) Provides science-based recommendations on the root cause of issues and how they can be resolved.

(8) Records minutes and action items resulting from the Preparatory (Pre-) ESAAB Equivalent review and the final ESAAB Equivalent Board

(8) Records minutes and action items resulting from the Preparatory (Pre-) ESAAB Equivalent review and the final ESAAB Equivalent Board meetings. Distributes draft and final meeting minutes in a timely fashion, for both the Pre-ESAAB and ESAAB-E review meetings to aid in the preparation of following deliverables and ESAAB-E process steps, such as the preparation of the resulting Decision Memorandum for signature by the AE.

(9) Assures that the Decision Memorandum prepared by the program/project area:

- Appropriately documents the determination of the AE, and
- Captures relevant items/issues.

(10) Maintains the NA-APM-20 database/library of HQ ESAAB Equivalent Board meetings minutes, approval/decision memorandums, supporting documentation, and related action items.

(11) Works with FPD, PO, and ESAAB Equivalent members to facilitate review process and track issues to resolution.

(12) Works with all parties to improve the ESAAB Equivalent Board process.

(13) Monitors/validates procedures and processes from Site Offices ESAAB Equivalent boards.

7. REFERENCES.

a. DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets,* November 29, 2010.

b. DOE STD 1189-2008, *Integration of Safety into the Design Process.*

c. DOE Order 420.1B Chg 1, *Facility Safety,* April 19, 2010.

8. CONTACT. Office of Enterprise Project Management (NA-APM-20), 301-903-3557.

BY ORDER OF THE ADMINISTRATOR:

J. CAVANAGH
Acting Associate Administrator
for Acquisition and Project Management

ATTACHMENT 1 ESAAB EQUIVALENT BOARD MEMBERSHIPS
ATTACHMENT 2 NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES
ATTACHMENT 3 CRITICAL DECISION INFORMATION OUTLINES
ATTACHMENT 4 ESAAB EQUIVALENT PRESENTATION OUTLINE
ATTACHMENT 5 ESAAB EQUIVALENT PROCESS FLOWCHART

ATTACHMENT 1: ESAAB EQUIVALENT BOARD MEMBERSHIPS

Role/Area of Inquiry	Principal Board Member
Board Chairperson	Acquisition Executive
Nuclear Safety	Chief of Defense Nuclear Safety
Legal	NNSA General Counsel, NA-GC
Budget	Director, Office of Planning, Programming, Budgeting, and Evaluation (PPBE), NA-MB-30
Environmental	Environment, Safety and Health (NA-SH)
Safety & Health (includes Integrated Safety Management)	Environment, Safety and Health (NA-SH)
Security	Associate Administrator for Defense Nuclear Security, NA-70
Procurement	Office of Acquisition Management, NA-APM-10 Director, Office of Procurement and Assistance, MA-60
Project Management and NNSA ESAAB Equivalent Secretariat	Director, Office of Enterprise Project Management, NA-APM-20
OECM Participants	Office of Engineering and Construction Management, MA-50
Specialized support, as required	Project-specific technology support: R&D subject matter experts (SMEs), Program specialists, ES&H subject matter experts (SMEs)
Other support, as required	Diversity – Office of Management and Budget (NA-MB) Public Affairs Congressional Affairs Office of the CFO

ATTACHMENT 2: NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES

REQUEST FOR
NNSA ENERGY SYSTEMS ACQUISITION ADVISORY BOARD (ESAAB)
EQUIVALENT REVIEW, AND DEPARTMENTAL ESAABS

Name of Project _____

Project Location _____

Project Number **Major System?** ☐ Yes ☐ No

Acquisition Executive _____

Type of Review:

- ☐ Critical Decision 0
- ☐ Critical Decision 1
- ☐ Critical Decision 2
- ☐ Critical Decision 3
- ☐ Critical Decision 4
- ☐ Baseline Change Proposal, Level
- ☐ Other:

	Name	E-Mail	Organization
NNSA Project Director:			
Contractor Project Manager:			
HQ Program Manager(s):			

An NNSA Pre-ESAAB Equivalent review is Requested on the **week of** this date. **(THIS FORM MUST BE SUBMITTED AT LEAST ONE AND A HALF WEEKS BEFORE THE REQUESTED PRE-ESAAB)**

A NNSA ESAAB Equivalent Board meeting is Requested on the **week of** this date **(THIS FORM MUST SUBMITTED AT LEAST THREE WEEKS BEFORE THE REQUESTED ESAAB-EQUIVALENT)**

ADDITIONAL ATTENDEES

If your office would like to have the electronic meeting notice for this meeting sent to individuals in addition to the names provided on this form, include those names and e-mail addresses here:

NAME	E-MAIL ADDRESS	ORG
	(As necessary, provide a separate list of additional Attendees and related information: email, organization.)	

ALL SUPPORTING DOCUMENTATION must be provided to the NA-APM-20 ESAAB Equivalent Secretariat a minimum of one week prior to the Pre-ESAAB Equivalent review meeting. NOTE, If this form is being used to request a full Departmental ESAAB action (i.e. CD for a Major System or a Baseline Change Proposal (BCP), allow 4 weeks after the Pre-ESAAB of a minimum total of six weeks after the submission of this form and related requisite documentation: Please see related NNSA ESAAB Equivalent BOP for more details.

1. I acknowledge and accept the above requirement:	**Federal Project Director**	**Date**	**Phone #**
2. Approved for scheduling:	**Headquarters Program Manager**	**Date**	**Phone #**
3. Email to NA-APM-20 for scheduling:	Email this form to Jane Gartner (Jane.Gartner@nnsa.doe.gov; 301-903-8235) AND to Katie O'Mara (Katherine.Omara@nnsa.doe.gov; 202-586-6867). **Electronic versions of this file are available on the NA-APM-20 IntraNet WebSite.**		

REQUIRED REVIEW MATERIALS

ATTACHMENT 2: NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES

(Documents previously submitted to NA-APM-20 for an Independent Project Review (IPR) need not be resubmitted—documents require approval/concurrence at one level below the AE)

CD-0 Approve Mission Need

1. Pre-conceptual Planning (Also, for Hazard Category 1, 2, and 3 nuclear facilities, and to the specificity possible, document DOE expectations for safety in design. (See DOE-STD-1189, as amended.)
2. Mission Need Statement
3. Tailoring Strategy
4. Program Requirements Document
5. Results from Mission Validation Independent Review (if required), and any external and/or internal reviews including Corrective Action Plans
6. Evaluate projects for Information Technology elements within the Departmental Enterprise Architecture framework
7. Presentation

CD-1 Approve Alternative Selection and Cost Range

1. Conceptual Design Report
2. Safety Design Strategy for projects subject to DOE-STD 1189, as amended.
3. Cost Estimate, including documentation on the basis and assumptions
4. Acquisition Strategy
5. One-for-One Replacement documentation
6. Preliminary Project Execution Plan
7. Federal Project Director appointment
8. Integrated Project Team
9. Design Review Results, including Technical Independent Project Review (when required)
10. Project Data Sheet
11. Long-Lead Procurements (if any)
12. NEPA strategy and analysis documents
13. High Performance Sustainable Building documentation
14. Preliminary Security Vulnerability Assessment Report
15. Integrated Safety Management documentation
16. Conceptual Safety Design Report (for Hazard Category 1, 2, and 3 nuclear facilities)
17. Conceptual Safety Validation Report (for Hazard Category 1, 2, and 3 nuclear facilities)
18. 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)
19. Quality Assurance Program documentation
20. Presentation

CD-2 Approve Performance Baseline

1. Project Execution Plan
2. Performance Baseline (i.e., scope, cost, schedule, risk mitigation, etc.)
3. Cost Estimate, including documentation on the basis and assumptions
4. Performance Baseline Validation Review results including Corrective Action Plans
5. Performance Baseline Validation Letter
6. Independent Cost Estimate or Independent Cost Review (when required)
7. Quality Assurance Program documentation
8. Earned Value Management System (when required)
9. Updated Project Data Sheet
10. Preliminary Design
11. Design Review results
12. Updated Safety Design Strategy (for projects subject to DOE-STD 1189)
13. Preliminary Safety Design Report (for Hazard Category 1, 2, and 3 nuclear facilities)
14. Preliminary Safety Validation Report (for Hazard Category 1, 2, and 3 nuclear facilities)
15. Approved 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)
16. Updated Security Vulnerability Assessment Report
17. Evidence of incorporating Sustainable Environmental Stewardship – High Performance Sustainable Building

ATTACHMENT 2: NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES

provisions
18. Final NEPA documentation
19. Presentation

CD-3 Approve Start of Construction

1. Design Review results from final design review
2. Updated Project Execution Plan and Performance Baseline
3. Execution Readiness or External Independent Review Results for Major Systems
4. Updated Safety Design Strategy (for projects subject to DOE-STD 1189)
5. Preliminary Documented Safety Analysis Report (for Hazard Category 1, 2, and 3 nuclear facilities)
6. Updated Hazards 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)
7. Updated Security Vulnerability Assessment Report
8. Safety Evaluation Report (for Hazard Category 1, 2, and 3 nuclear facilities)
9. Approved Construction Project Safety and Health Plan
10. Evidence of incorporating Sustainable Environmental Stewardship – High Performance Sustainable Building provisions
11. Updated Quality Assurance Program
12. Project Data Sheet
13. Presentation

CD-4 Approve Start of Operations or Project Closeout

1. Verification of Key Performance Parameters or Project Completion Criteria
2. Completed Operational Readiness Review or Readiness Assessment
3. Checkout, Testing and Commissioning Plan
4. Project Transition to Operations Plan
5. Updated Quality Assurance Plan
6. Revised environmental management system
7. Documented Safety Analysis Report with Technical Safety Requirements (for Hazard Category 1, 2, and 3 nuclear facilities)
8. Updated Construction Project safety and Health Plan
9. Approved Final Hazards Analysis Report
10. Final Security Vulnerability Assessment Report
11. Safety Evaluation Report (for Hazard Category 1, 2, and 3 nuclear facilities)
12. Presentation

PLEASE NOTE:

- **The project provide ALL review documents to the NA-APM-20 ESAAB Secretariat (Katherine.Omara@nnsa.doe.gov or Jane.Gartner@nnsa.doe.gov) at least one week prior to the scheduled Preparatory (Pre-) ESAAB Equivalent meeting to allow ESAAB Equivalent Board members adequate time to prepare comments.**
- **The Project Director agrees to notify Katherine.Omara@nnsa.doe.gov or Jane.Gartner@nnsa.doe.gov if the supporting documentation will not be ready for review one week prior to the scheduled Preparatory (Pre-) ESAAB Equivalent meeting.**
- **Board members may postpone meetings if adequate review time is not provided.**

SHARED FILES

Authorized Headquarters users can access the NA-APM-20 Shared Files Folder at: \\hqnas009.na.local\public

Remote users will need to login through: https://workplace.doe.gov/

To request access to the NA-APM-20 Shared Files folder, email Ginnie Marshall at Virginia.Marshall@nnsa.doe.gov

ATTACHMENT 2: NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES

SAMPLES CD-1, CD-2/3, AND CD-3 MEMORANDA

Department of Energy
National Nuclear Security Administration
Washington, DC 20585

January 8, 2010

MEMORANDUM FOR: DONALD L. WINCHELL, JR.
REVITALIZATION MANAGER
LOS ALAMOS SITE OFFICE

FROM: ROBERT DINO HERRERA
DIRECTOR
OFFICE OF INFRASTRUCURE
AND FACILITIES MANAGEMENT

SUBJECT: Sanitary Effluent Reclamation Facility Expansion Project at the Los Alamos National Laboratory (LANL)

By this memorandum, I approve the Critical Decision (CD) - 1, Alternative Analysis and Cost Range, for the subject project. The approved alternative (alternative 3 of the Alternative Analysis Report dated September 29, 2009,) is to expand the existing SERF to accommodate new equipment to handle additional quantities of liquid to be treated. In addition, I approve the acquisition strategy for the project to be design/build. Approval of CD-1 allows the Department to request construction funds in Fiscal Year (FY) 2011.

The approved Total Project Cost range is $10 million to $16 million and the Total Estimated Cost range is $9 million to $15 million. The CD-4 approval date range is 4Q Fiscal Year (FY) 2012 to 1Q FY 2013. The Deputy Secretary's memorandum dated January 16, 2009, and the FY 2011 Field Budget Call dated December 14, 2009, require that all pre-CD-2 projects with a total project cost (TPC) of less than $20 million request all construction funds within the same appropriation year of start of construction. As a result, the project will be fully funded in FY 2011, its construction year, in the amount of $13.8 million. My approval authorizes the project team to initiate the design/build procurement process.

If you have any questions, please call me at 202-586-5366 or have your staff call Shah Jaghoory at 301-903-73768.

ATTACHMENT 2: NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES

Department of Energy
National Nuclear Security Administration
Washington, DC 20585

July 17, 2009

OFFICE OF THE ADMINISTRATOR

MEMORANDUM FOR REVITALIZATION MANAGER
LOS ALAMOS SITE OFFICE

FROM: THOMAS P. D'AGOSTINO
ADMINISTRATOR

SUBJECT: Critical Decision-2 and 3 (CD-2/3) for the Chemistry and Metallurgy Research Replacement Facility (CMRR) – Radiological Laboratory Utility Office Building (RLUOB) Equipment Installation (REI) project at Los Alamos National Laboratory, Line Item Project 04-D-125

By this memorandum, I am approving CD-2, Approve Performance Baseline, and CD-3, Approve Start of Construction, for the REI project, subject to availability of appropriations. The Total Project Cost is $199.4 million, the Total Estimated Cost is $152.9 million, and the project completion date (CD-4, start of Operations) is June 30, 2013. Accordingly, the project is authorized to use the available construction funds for the acquisition of REI work scope.

The RLOUB, REI, and the Nuclear Facility are three phases of the overall CMRR Project. The Nuclear Facility, which is a major system acquisition, falls under the authority of the Secretarial Acquisition Executive. The RLOUB and REI are below the major system acquisitions threshold and, therefore, are managed as separate projects with separate baselines within the CMRR Project, with Acquisition Executive Authority vested in the Administrator NNSA. This interpretation of acquisition authorities is based on a decision from the Office of Engineering and Construction Management (MA-50), as the Secretariat of the DOE Energy System Acquisition Advisory Board process and cognizant authority to interpret DOE Order 413.3A, *"Program and Project Management for the Acquisition of Capital Assets."* The information reported in the CMRR Congressional Project Budget Data Sheet is not affected by this action.

The project's high level scope includes:

- Equipping the RLUOB to make it suitable for performing programmatic work, such as completing identified laboratories for operational use, radioactive waste utility tie-ins, purchase and installation of equipment including radiation protection health physics equipment, and completing fuel oil storage above ground tank(s),

ATTACHMENT 2: NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES

- Completing activities necessary to make the facility functionally operational, such as the inclusion of telecommunications services and requisite security features.

The attachment to this memorandum contains the detailed funding baseline.

Completion of REI will make the RLUOB operational to enable it to perform programmatic work, mostly related to chemical analysis of small samples containing actinides, especially plutonium. Once completed, this project will reduce the risk of disruption of analytical chemistry services for nuclear programs at Los Alamos.

If you have any questions, please call me or have your staff call Patrick Rhoads at (202) 586-7859.

Attachment

ATTACHMENT 2: NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES

Department of Energy
National Nuclear Security Administration
Washington, DC 20585

July 9, 2009

MEMORANDUM FOR: STEVEN C. ERHART
MANAGER
PANTEX SITE OFFICE

FROM: THAD T. KONOPNICKI TTK
ASSOCIATE ADMINISTRATOR FOR
INFRASTRUCTURE AND ENVIRONMENT

SUBJECT: Critical Decision-3 (CD-3) for the High Pressure Fire Loop (HPFL) Project at Pantex Production Facility, Line Item Project 08-D-801

By this memorandum, I am approving CD-3, Approve Start of Construction, for the HPFL Project, subject to availability of appropriations. The Total Project Cost is $42.364 million, the Total Estimated Cost $40.899 million, and the project completion date (CD-4, start of Operations) is September 30, 2012. Accordingly, the project is authorized to use the available construction funds to prepare for construction activities.

My approval is based on the recommendation of members of the National Nuclear Security Administration's (NNSA) Energy System Acquisition Advisory Board (ESAAB) – Equivalent and my staff.

The project's high level scope includes:

- Replace deteriorating ductile iron piping with new high density polyethylene piping.
- Replace Post Indicator Valves and installation of Cathodic Protection and other appurtenances.
- Replace Hydrants and installation of Cathodic Protection and other appurtenances.

More detailed scope is provided in the Project Execution Plan, which will be the subject of another approval memorandum.

It is my understanding that the project team has received confirmation from the Chief of Defense Nuclear Safety that the project is not considered to be a "Major Modification." Therefore, the DOE Standard 1189 "Integration of Safety into Design Process" requirements do not apply. I have also received confirmation that the system's ability to

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ATTACHMENT 2: NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES

meet the intended safety function requirements is documented in the existing safety basis and the project's design documents.

As the Acquisition Executive for the HPFL Project, I am conditionally approving Amanda Clark as the Federal Project Director for the HPFL Project, subject to her ability to obtain Level II Project Management Certification within twelve months of this approval as required by Section 5.a.(3), Chapter IV of DOE Order 361.1A. I am postponing my decision to delegate the CD-4, Approve Start of Operations, to the Site Office Manager until a later point in time.

Completion of HPFL will enhance reliability of safety-class fire suppression system to ensure that the Pantex Plant will be able to meet mission assignments in Zone 12 South Material Access Area. Once completed, this project will reduce the risk of unplanned facility system outages and reduce system maintenance requirements.

Although I am approving the Total Estimated Cost to be $40.899 million, because of the favorable bids that the project has received, I will withhold the $7.303 million increase in the Total Estimated Cost proposed in the Baseline Chang Proposal 6A as the Headquarters reserve. This approach was proposed by your staff at the Energy System Acquisition Advisory Board – Equivalent CD-3 review.

The attachment to this memorandum contains the funding and cost profiles and the major milestones for the project, subject to Congressional approval of the funding request and the Deputy Secretary approval of BCP 6A.

If you have any question, please call me at (202) 586-7349 or have your staff contact Thomas Robinson, of my staff, at (202) 586-0139.

Attachment

ATTACHMENT 2: NNSA ESAAB EQUIVALENT REQUEST FORM, CRITICAL DECISION, AND APPROVAL MEMORANDUM EXAMPLES

Attachment to the HPFL Project Critical Decision 3 Approval Memorandum from Thad T. Konopnicki to Steven C. Erhart

Approved Funding Profile ($ Million)

Funding Type	Prior Years	FY 2008	FY 2009	FY 2010	Total
PED: 06-D-160-01	1.686				1.686
Construction: 08-D-801		6.866	1.94	31.91[1]	40.716
OPC	0.746	0.106	0.178	0.435	1.465
Total	2.432	6.972	2.118	32.345	43.867

Approved Cost Profile

Funding Type	Prior Years	FY 2009	FY 2010	FY2011	FY 2012	Total
PED: 06-D-160-01	1.479	0.207				1.686
Construction: 08-D-801		1.223	15.713	15.479	0.766	33.181
OPC	0.670	0.020	0.170	0.188	0.243	1.291
Total	2.149	1.450	15.883	15.667	1.009	36.158

Approved Major Milestones

Milestone Name	Baseline Date	Actual Date
Critical Decision 0		09/15/2004
Critical Decision 1		12/23/2005
Complete Design		09/21/2007
Critical Decision 2		12/1/2006
Critical Decision 3	4th Q FY 2009	Actual date after approval
Begin Construction	4th Q FY 2009	
Complete Construction	2nd Q FY 2012	
Critical Decision 4	September 30, 2012	
Final Cost Report	March 31, 2013	

[1] Consistent with the BCP 6A, the project is authorized for $30.347M.

ATTACHMENT 3: CRITICAL DECISION INFORMATION OUTLINES

Required Review Materials for Critical Decisions 0 through 4 are listed in Table 2, Critical Decision Requirements, in DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, and on the NA-APM-20 website (http://hq.na.gov/pmnet). Suggested project preparation topics for Critical Decisions are also available on the NA-APM-20 website.

Documents previously submitted to NA-APM-20 for an Independent Project Review (IPR) need not be resubmitted. However, the documents require approval/concurrence at one level below the AE.

ATTACHMENT 4: ESAAB EQUIVALENT PRESENTATION OUTLINE

General Requirements for all Presentations (also see the following specific guidance for each Critical Decision below):

- What decision(s) is being requested from the ESAAB Equivalent AE (1 slide)
- Extremely brief Project Overview (i.e., mission and project description) (1-2 slides)
- Integration of Safety into Design (e.g.DOE-STD-1189) for Hazard Category 1, 2, and 3 nuclear facilities. Include discussion of Safety Design Strategy, limiting Design Basis Accidents, engineered controls, and unresolved issues related to safety in design (1-2 slides)
- Organization Chart (1 slide)
- Changes to project status and resolution of prior issues since last ESAAB Equivalent Meeting—progress on Corrective Action Plans and resolution of other issues (1-2 slides)
- Required funding profile (1 slide)
- Results from recent reviews (e.g., Independent/External Project Reviews) supporting the Critical Decision: to include evidence of compliance with programmatic, safety, environmental energy efficiency/LEED/High Performance Sustainable Building, security, legal, procurement, and departmental requirements, (1-3 slides)
    - (e.g. DOE Orders 430.2B, 450.1A and related Executive Orders),
- Specific issues that require AE action—FPD and PO will work with board members to prepare specific major issues for presentation to AE, in advance of the ESAAB for presentation and discussion. This should be reserved for issues that have significant programmatic implications (1 slide)
    - Brief summary of results of Preparatory (Pre-) ESAAB Equivalent member staff review—summarize results of ESAAB Equivalent discussions, issue resolution, and corrective action plan (1-2 slides)
- High risks and mitigation (1 slide)
- Decision Approval Summary (1 slide)
- (Optional) BACKGROUND section to include relevant additional information for reference as needed

Following are Specific Requirements for Presentations for Critical Decisions 0 through 4:

Critical Decision 0

- State Mission Need, capability gap, and document mission requirement that cannot be met through other than material means
- State Tailoring Strategy—describe project's approach for appropriately adapting critical decision requirements based on project's risk and complexity, if tailoring is planned Define ultimate goals from Program Requirements Document which project must satisfy

ATTACHMENT 4: ESAAB EQUIVALENT PRESENTATION OUTLINE

- Request approval of Mission Need Statement and Program Requirements Document (documents require approval/concurrence of one level below the AE)

Critical Decision 1

- Address acquisition strategy that decribes the high-level business and technical management approach designed to achieve project objectives, including Key Performance Parameters, within specified resource constraints
- List alternatives considered and preferred/recommended alternative
- For Hazard Category 1, 2, and 3 nuclear facilities, discuss the Safety Design Strategy, including how it will be aligned to reflect the approved Tailoring Strategy, if applicable. Discuss the results of the Conceptual Safety Validation Report, including any Conditions of Approval.
- Show cost range and estimated funding requirements, by year if available
- Request approval of Federal Project Director, if not previously approved
- Identify Integrated Project Team
- Address NEPA strategy and timeline
- Request approval of Long-Lead Procurements, if necessary
- Request approval of Acquisition Strategy and Preliminary Project Execution Plan, (documents require approval/concurrence of one level below the AE)

Critical Decision 2

- Address the Performance Baseline, total project cost, schedule, and scope
- Address changes to Project Execution Plan resulting from the design effort in all areas including design considerations; performance baseline; project, risk, and configuration management, including EVMS usage; and roles and responsibilities
- Indicate changes to Mission Need Statement; Program Requirements Document; and Acquisition Strategy
- For Hazard Category 1, 2, and 3 nuclear facilities, discuss any significant changes to the Safety Design Strategy since CD-1. Discuss the results of the Preliminary Safety Validation Report, including any Conditions of Approval.
- Discuss NEPA implementation
- Report results from Performance Baseline Validation External Independent Review (EIR) (required for Major System projects) or Performance Baseline Validation Independent Project Review (IPR) and Independent Cost Review (ICR)
- Address Quality Assurance Program
- Address Preliminary Design—this stage of the design is complete when it provides sufficient information to support development of the Performance Baseline

ATTACHMENT 4: ESAAB EQUIVALENT PRESENTATION OUTLINE

Critical Decision 3

- Request approval of updates to CD-2 project documentation to reflect any changes resulting from final Design, such as the Project Execution Plan, Performance Baseline, Project Data Sheet, etc.
- For Hazard Category 1, 2, and 3 nuclear facilities, discuss any significant changes to the Safety Design Strategy since CD-2. Discuss the results of the Safety Evaluation Report based on the review of the Preliminary Documented Safety Analysis, including any Conditions of Approval.
- Report results from External Independent Review (EIR) or Independent Project Review (IPR)
- Discuss construction readiness and implementation (e.g. any pending award of construction contract)
- Address updates to Quality Assurance Program for construction, field design changes, and procurement activities

Critical Decision 4

- Verify Key Performance Parameters or Project Completion Criteria have been met and mission requirements achieved
- For Hazard Category 1, 2, and 3 nuclear facilities, discuss any significant changes to the Safety Design Strategy since CD-3. Discuss the results of the Safety Evaluation Report based on the review of the Documented Safety Analysis and Technical Safety Requirements, including any Conditions of Approval.
- Address the Readiness Assessment or Operational Readiness Review and all pre-start findings for nuclear facilities
- Address a Checkout, Testing, and Commissioning Plan that identifies subtasks, systems, and equipment
- Address a Project Transition to Operations Plan that clearly defines the basis for attaining initial operating capability, full operating capability, or project closeout, as applicable
- Address an updated Quality Assurance Plan to address testing, identified deficiencies, and startup, transition, and operation activities.
- Address any new environmental aspects related to turnover and operations.

ATTACHMENT 5: ESAAB EQUIVALENT PROCESS FLOWCHART