

Exhibit 123 – Critical Decision Requirements Checklists

The Requirements of DOE Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, Appendix A Requirements, Section 4 “Requirements for Approval of Critical Decisions” Tables 2-0 through 2-4 are presented in a checklist form suitable for use with Microsoft Word v10. They can be edited most easily after enabling MS-Word’s “Developer” menu. The checklists may be adapted for use in Tailoring Strategies (looking forward), or in readiness reviews.

Additionally, there are checklists for combined Critical Decision (CD)-2/3, Approve Performance Baseline/ Start of Construction/Execution and CD-1/2/3, Approve Alternative Selection/ Performance Baseline/ Start of Construction/Execution.

It is a common EM practice to combine CDs 2 and 3 when funding lines are established (out-year capital funds can not be requested until CD-2 is approved). Order 413.3B (page A-17) allows that CD-1/2/3 may be accomplished simultaneously, when project requirements (e.g., baseline development) and associated environmental documents (e.g., regulatory agreements) are finalized in unison.

Order 413.3B Tables 2.0 through 2.4 CD-x Requirements are reproduced here for Users’ convenience, updated to current DOE Directives. Following them are requirements tables for combined CD-2/3 and combined CD-1/2/3.

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Critical Decision Requirements Checklists

The following requirements checklists were coded for Microsoft Word ® v.10, and will not work as-is with earlier versions. They are structured for use in a Tailoring Strategy for a Project with TPC <\$400M, the limit of the Senior Advisor for Environmental Management’s delegation of AE Authority. A Tailoring Strategy is usually prepared post CD-0, and presents the summary line requirements with options for future completion. The tables could be converted for use in a completion report by changing the checkbox labels to “Completed – N/A – Tailored” and then providing the completion vehicle information in the third column.

Critical Decision 0: Approve Mission Need

Acquisition Executive Authority		The Project is <\$50M : \$50M--\$100M : <\$400M
<input checked="" type="checkbox"/> Program Secretarial Officer		
Critical Decision Approval		Rough Order of Magnitude \$xxM — \$xxM
<input checked="" type="checkbox"/> Program Secretarial Officer, EM-1 Date Approved: <i>October 01, 2012</i>		
CD – 0 REQUIREMENTS		
Pre-Conceptual Planning Activities	<input checked="" type="checkbox"/> <i>Completed</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>	<i>Explain</i>
Mission Need Statement	<input checked="" type="checkbox"/> <i>Completed</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>	
OECM Review on MNS	<input type="checkbox"/> <i>Completed</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>	<i>OECM review required if high estimate is ≥\$100M</i>
Mission Validation Independent Project Review	<input type="checkbox"/> <i>Completed</i> <input checked="" type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>	<i>Not Required; Not a Major System Project</i>
Independent Cost Review	<input type="checkbox"/> <i>Completed</i> <input checked="" type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>	<i>Not Required; Not a Major System Project</i>
Program Requirements Document	<input type="checkbox"/> <i>Completed</i> <input checked="" type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>	<i>Not required; Not a NNSA activity or site.</i>
Safety-in-Design Expectations	<input type="checkbox"/> <i>Completed</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>	<i>Required for nuclear hazard Category 1, 2, or 3 facilities.</i>

Post CD-0 Approval Actions:

Submit all CD documents to OECM.	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Develop Project Data Sheets and Exhibit 300s. Identify any MIE.	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Initiate monthly PARS II reporting.	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Initiate QPRs with the AE.	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Proceed with conceptual planning	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	



Critical Decision 1: Approve Alternative Selection/Cost Range

<p>Acquisition Executive Authority</p> <p><input type="checkbox"/> Program Secretarial Officer <input checked="" type="checkbox"/> EMCBC Director (SES)</p> <p>Date Received: July 16, 2012</p>	<p>The Project is <\$100M, and <\$50M</p> <p>Memorandum: Huizenga/EM1 to Craig/CBC, <i>Retract Delegation of AE Authority for CAPs at NNSS and LANL</i>, dated July 16, 2012</p> <p>Reiterated in CD0/MNS memo dated October 17, 2012.</p> <p>The EMCBC Director will be the AE for all subsequent Critical Decisions.</p>
<p>Critical Decision Approval</p> <p><input type="checkbox"/> Program Secretarial Officer <input checked="" type="checkbox"/> EMCBC Director, AE (SES)</p> <p>Date Received: _____</p>	
CD-1 REQUIREMENTS	
Tailoring Strategy	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored
Approve Acquisition Strategy	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Preliminary Project Execution Plan	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Appoint Federal Project Director	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Establish Integrated Project Team	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Develop Initial Risk Management Plan	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Independent Cost Review (ICR)	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Comply with One-for-One Replacement (HR 109-86)	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Conceptual Design Report	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Preliminary Hazard Analysis Report	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Integrated Safety Management Plan	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Quality Assurance Program	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored

Safeguards and Security	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
National Environmental Policy Act (NEPA) Strategy	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Environmental Compliance Strategy	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Update Project Data Sheet	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Hazard Category 1, 2, or 3 nuclear facilities prepare...	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	
Safety Design Strategy		
Do an Independent Project Review		
Conceptual Safety Design Report		
Conceptual Safety Validation Report		

Post CD-1 Approval Actions:

Submit all CD documents to OECM.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Begin the project design.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Develop an Acquisition Plan, if applicable.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Continue monthly PARS II reporting.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Continue QPRs with the AE.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
<i>For nuclear facilities, develop a Checkout, Testing and Commissioning Plan</i>	<input type="checkbox"/> Fully Applicable <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Tailored	

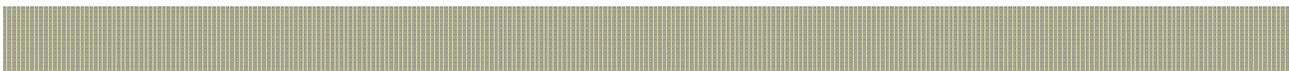
Critical Decision 2/3 – Approve Performance Baseline

<p>Critical Decision Approval</p> <p><input type="checkbox"/> Program Secretarial Officer <input checked="" type="checkbox"/> EMCBC Director, AE (SES)</p> <p>Date Received: _____</p>	<p>The Project TPC is (<\$50M; \$50M--\$100M; <\$400M)</p> <p>AE authority per Memorandum: Huizenga/EM1 to _____</p> <p style="text-align: center;">Baseline:</p> <p>Total Project Cost: _____</p> <p>Completion Date: _____</p>	
CD – 2/3 REQUIREMENTS		
Update Acquisition Strategy	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	<i>Explain any tailoring or why this is N/A. As the project progresses, detail how this was met.</i>
Establish Performance Baseline	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Finalize Project Execution Plan	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Project Management Plan	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Preliminary & Final Design	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Performance Baseline Validation and Execution Readiness IPR	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Independent Cost Estimate or Review	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Earned Value Management System	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Technology Readiness Assmt.	<input type="checkbox"/> Fully Applicable <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Hazard Analysis Report	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Construction Project Safety and Health Plan	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	<i>Note any updates to the Integrated Safety Management Plan</i>
Quality Assurance Program	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Security Vulnerability Assessment	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	

Environmental (EIS/EA/FONSI/ CX)	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Update Project Data Sheet	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Hazard Category 1, 2, or 3 nuclear facilities prepare...	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	<i>Refer to DOE-STD-1189-2008. Nuclear facilities use a “graded approach,” very similar to “tailoring.”</i>
TIPR		
SDS		
PSDA		
SER		

Post CD-2/3 Approval Actions:

Submit all CD documents to MA63. Submit any BCP documents to MA63 as they occur.	<input checked="" type="checkbox"/> <i>Fully Applicable</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>
Update the Project Data Sheet and Exhibit 300.	<input checked="" type="checkbox"/> <i>Fully Applicable</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>
Commit all the resources up to the TPC, to execute the project. The AE should endorse any negative changes to the approved funding profile.	<input type="checkbox"/> <i>Fully Applicable</i> <input checked="" type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>
Submit Lessons Learned regarding up-front project planning and design to PSO and MA63.	<input checked="" type="checkbox"/> <i>Fully Applicable</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>
Conduct EVMS surveillance at least every two years.	<input type="checkbox"/> <i>Fully Applicable</i> <input type="checkbox"/> <i>N/A</i> <input checked="" type="checkbox"/> <i>Tailored</i> TBD. Conducted by: Contractor \geq \$20M < \$50M
Continue monthly PARS II reporting (including earned value data). FPD, Program Manager and OECM will provide monthly assessments.	<input checked="" type="checkbox"/> <i>Fully Applicable</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>
Continue QPRs with the AE or their designee.	<input checked="" type="checkbox"/> <i>Fully Applicable</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>
Conduct annual project peer review for projects with a TPC > \$100M.	<input type="checkbox"/> <i>Fully Applicable</i> <input type="checkbox"/> <i>N/A</i> <input type="checkbox"/> <i>Tailored</i>



Critical Decision 1/2/3 – Approve Performance Baseline

<p>Critical Decision Approval</p> <p><input type="checkbox"/> Program Secretarial Officer <input checked="" type="checkbox"/> EMCBC Director, AE (SES)</p> <p>Date Received: _____</p>	<p>The Project TPC is (<\$50M; \$50M--\$100M; <\$400M)</p> <p>AE authority per Memorandum: Huizenga/EM1 to _____</p> <p style="text-align: center;">Baseline:</p> <p>Total Project Cost: _____</p> <p>Completion Date: _____</p>
CD –1/2/3 REQUIREMENTS	
Approve an Acquisition Strategy	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Establish Performance Baseline	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Final Project Execution Plan Approve the FPD Prepare the Funding Request and Ex. 300 Develop a RMP	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Project Management Plan	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Comply with One-for-One Replacement (HR 109-86)	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Concept thru Final Design Perform Design Review Finalize Safety Sign. SSC Establish Code of Record Incorporate HPSB Features Final Design Report	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Performance Baseline Validation and Execution Readiness IPR (or EIR)	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Independent Cost Estimate or Review	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Earned Value Management System	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored
Technology Readiness Assmt.	<input type="checkbox"/> Fully Applicable <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Tailored
Hazard Analysis Report	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored

Develop and implement an ISM Plan	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A	
Construction Project Safety and Health Plan	<input type="checkbox"/> Fully Applicable <input checked="" type="checkbox"/> Tailored	<input type="checkbox"/> N/A	<i>Note any updates to the Integrated Safety Management Plan</i>
Quality Assurance Program	<input type="checkbox"/> Fully Applicable <input checked="" type="checkbox"/> Tailored	<input type="checkbox"/> N/A	
Security Vulnerability Assessment	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A	
Environmental (EIS/EA/FONSI/ CX)	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A	
Update Project Data Sheet	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A	
Hazard Category 1, 2, or 3 nuclear facilities prepare...	<input type="checkbox"/> Fully Applicable	<input type="checkbox"/> N/A	<i>Refer to DOE-STD-1189-2008. Nuclear facilities use a "graded approach," similar to "tailoring."</i>
SDS			
IPR			
TIPR			
PSDA			
SER			

Post CD-1/2/3 Approval Actions:

Submit all CD documents to MA63. Submit any BCP documents to MA63 as they occur.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A
Update the Project Data Sheet and Exhibit 300.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A
Commit all the resources up to the TPC, to execute the project. The AE should endorse any negative changes to the approved funding profile.	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input checked="" type="checkbox"/> N/A
Submit Lessons Learned regarding up-front project planning and design to PSO and MA63.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A
Conduct EVMS surveillance at least every two years.	<input type="checkbox"/> Fully Applicable <input checked="" type="checkbox"/> Tailored	<input type="checkbox"/> N/A
Continue monthly PARS II reporting (including earned value data). FPD, Program Manager and OECM will provide monthly assessments.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A
Continue QPRs with the AE or their designee.	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A
Conduct annual project peer review for projects with a TPC > \$100M.	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> Tailored	<input type="checkbox"/> N/A

Critical Decision 2: Approve Performance Baseline

Acquisition Executive Authority <input type="checkbox"/> Program Secretarial Officer <input checked="" type="checkbox"/> Office Director (SES) Date Received: July 16, 2012	The Project TPC is ____ <\$50M : \$50M--\$100M : <\$400M Memorandum: Huizenga/EM1 to Craig/CBC, <i>Retract Delegation of AE Authority for CAPs at NNSS and LANL</i> , dated July 16, 2012	
Critical Decision Approval <input type="checkbox"/> Program Secretarial Officer <input checked="" type="checkbox"/> EMCBC Director, AE (SES)	Date Received: _____ Cost Baseline: _____ Completion date: _____	
CD-2 REQUIREMENTS		
Update Acquisition Strategy	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	<i>Explain any tailoring or why this is N/A. As the project progresses, detail how this was met.</i>
Establish Performance Baseline	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Approve Updated Project Execution Plan	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Develop a Project Management Plan	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Complete Preliminary Design	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
EIR or IPR for Performance Baseline Validation	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Technology Readiness Assessment	<input type="checkbox"/> Fully Applicable <input checked="" type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Employ an Earned Value Mgmt System	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Hazard Analysis Report	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Update ISMS Plans	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Quality Assurance Program	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Security Vulnerability Assessment	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Prepare a Hazardous Analysis Report	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	

Conduct Preliminary Security Assessment	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Final Environmental Impact Statement/EA	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Update Project Data Sheet	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	
Hazard Category 1, 2, and 3 Nuclear Facilities prepare...	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input checked="" type="checkbox"/> Tailored	<i>Refer to DOE-STD-1189-2008.</i>
TIPR		<i>Refer to DOE-G 413.3-9.</i>
SDS Update		
PSDR		
PSVR		

Post CD – 2 Approval	
Submit all CD documents, and if there are changes to the PB, submit BCP documents to OECM.	
Submit budget request for the TPC.	
Obtain AE endorsement on any changes to the approved funding profile that negatively impacts the project.	
Continue monthly PARS II reporting (including earned value data). FPD, Program Manager and OECM will provide monthly assessments.	
Continue QPRs with the AE or their designee.	
Initiate annual project peer review for projects with a TPC > \$100M.	



Critical Decision 3: Approve Start of Construction/Execution

Acquisition Executive Authority <input type="checkbox"/> Program Secretarial Officer <input checked="" type="checkbox"/> Office Director (SES)		The Project TPC is ____ <\$50M : \$50M--\$100M : <\$400M
Critical Decision Approval <input type="checkbox"/> Program Secretarial Officer <input checked="" type="checkbox"/> EMCBC Director, AE (SES)		Date Received: _____ Cost Baseline: _____ Completion date: _____
CD-3 REQUIREMENTS		
Update CD-2 Documents: PEP, PB, PDS, etc	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	<i>Explain any tailoring or why this is N/A. As the project progresses, detail how this was met.</i>
Complete and Review the Final Design	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Employ Certified EVM System	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Perform EIR/IPR for Construction	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Conduct a Technology Readiness Assmt	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Update Hazard Analysis Report	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Construction Project Safety and Health Plan	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Update the Quality Assurance Program	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Finalize Security Vulnerability Assessment Report	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Hazard Category 1, 2, and 3 Nuclear Facilities prepare...	<input checked="" type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	<i>For Projects Subject to DOE-STD-1189-2008. See also 10 CFR Part 830, Subpart B)</i>
Update the SDS		
PDSA		
SER		

Post CD-3 Approval	
Submit all CD documents to OECM.	
Commit all the resources necessary, within the funds provided and within the TPC, to execute the project.	
Within 90 days, submit Lessons Learned regarding up-front project planning and design to PSO and OECM.	
Update PDS, or other funding documents for MIE and OE, and OMB 300s, if applicable. (Refer to OMB Budget Call for PDS and Exhibit 300 Template.)	
Conduct EVMS surveillance to ensure compliance with ANSI/EIA-748B, or as defined in the contract. Contractor must conduct the surveillance annually. OECM and PMSO must conduct their surveillance at the contract midpoint or every two years, during contract extensions, or as requested by the AE.	
Continue monthly PARS II reporting (including earned value data). FPD, Program Manager and OECM will provide monthly assessments.	
Continue QPRs with the AE or their designee.	
Continue annual project peer reviews for projects with a TPC > \$100M.	



Critical Decision 4 – EM Mission Completion/Site Transition

Critical Decision Approval		Date Received: _____
<input type="checkbox"/> Program Secretarial Officer <input checked="" type="checkbox"/> EMCBC Director, AE (SES)		
CD – 4 REQUIREMENTS		
Key Performance Parameters / Project Completion Criteria	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	<i>Verify that Key Performance Parameters and Project Completion Criteria have been met and that mission requirements have been achieved.</i>
Project Transition to Operations Plan ²	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	<i>TBD. Most likely N/A.</i>
Readiness to Operate (<Cat 3 Nuclear)	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	<i>TBD. Most likely N/A.</i>
Final Hazard Analysis Report	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Revise the Environmental Management System	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Contractor Evaluation Documents	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A <input type="checkbox"/> Tailored	
Hazard Category 1, 2, or 3 nuclear facilities prepare...	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	<i>Refer to DOE-STD-1189-2008. Nuclear facilities use a “graded approach,” very similar to “tailoring.”</i>
Do a ORR or RA		
SDA		
TSRs		
SER		

NOTES:

1. Documents and reports are not intended to be stand-alone and may be combined.
2. For Environmental Management Clean-up Projects, refer to 29 CFR 1910.120.

Post CD-4 Approval Actions and Project Closeout

POST CD – 4 REQUIREMENTS		
Submit all CD documents to MA63	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	
Finalize PARS II reporting	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	
Submit Lessons Learned	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	<i>Within 90 days!</i>

Submit Initial Project Closeout Report	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	<i>Within 90 days!</i>
Final Project Closeout Report	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	
Document Facility Sustainment Goals	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	
Update FIMS	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	
Update the Site 10-Year Plan	<input type="checkbox"/> Fully Applicable <input type="checkbox"/> N/A	

Order 413.3B, §A4. Requirements for Approval of Critical Decisions

4.a. CD-0, Approve Mission Need (Page A-5)

Table 2.0 - CD-0, Approve Mission Need

Prior to CD-0 ¹	Approval Authority ²
Perform Pre-Conceptual Planning activities that focus on the Program Offices' strategic goals and objectives, safety planning, design, development of capability gaps, high-level project parameters, a ROM cost range, and schedule estimates.	
Perform a Mission Validation Independent Review on all Major System Projects. (Refer to DOE G 413.3-9.)	PSO
Approve a Mission Need Statement Document with recommendation from OECM for projects with a TPC \geq \$100M. (Refer to DOE G 413.3-17.)	PSO
For Major System Projects, or for projects as designated by the SAE, OECM will conduct an Independent Cost Review (ICR).	
For NNSA only , prepare a Program Requirements Document that defines the ultimate goals which the project must satisfy. (Refer to NNSA Business and Operating Policy.)	PSO
<i>For Hazard Category 1, 2, and 3 nuclear facilities, and to the specificity possible, document DOE expectations for Safety-in-Design. (Refer to DOE-STD-1189-2008.)</i>	<i>Safety Basis Approval Authority (SBAA)</i>

Post CD-0 Approval	
Submit all CD documents to OECM.	
Develop a Project Data Sheet (PDS) for Line Item Projects to request Project Engineering and Design (PED) funds. Develop funding documents for MIE or OE projects for the design, and OMB 300s. (Refer to OMB Budget Call for PDS and Exhibit 300 Templates)	
Initiate monthly PARS II reporting (excluding earned value data). FPD, Program Manager and OECM will provide monthly assessments, as appropriate.	
Initiate Quarterly Project Reviews (QPRs) with the AE or their designee.	
Proceed with conceptual planning and design used to develop alternative concepts and functional requirements using operating funds.	

NOTES:

1. Documents and reports are not intended to be stand-alone and may be combined.
2. Where no approval authorities are noted, authorities are established through other directives or the Program Offices (e.g., Functions and Requirements Assignment Matrix).

4.b. CD-1, Approve Alternative Selection and Cost Range. (page A 6—8)

Table 2.1 - CD-1, Approve Alternative Selection and Cost Range

Prior to CD-1 ¹	Approval Authority ²
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Prior to CD-1 ¹	Approval Authority ²
Approve an Acquisition Strategy with endorsement from OEMC for Major System Projects. (Refer to DOE G 413.3-13.)	PSO
<p>Approve a preliminary Project Execution Plan (PEP). The Tailoring Strategy, if required, can be included in the PEP or placed in a separate document. (Refer to DOE G 413.3-15.)</p> <p>Approve appointment of the Federal Project Director considering the requirements in DOE O 361.1B.</p> <p>Establish and charter an Integrated Project Team to include a responsibility assignment matrix. The Charter may be included in the PEP. (Refer to DOE G 413.3-18A)</p> <p>Develop a Risk Management Plan (RMP) and complete an initial risk assessment of a recommended alternative. This may be included in the PEP. For evaluating the Safety-in-Design Strategy, prepare Risk and Opportunity Assessments for input to the RMP. (Refer to DOE G 413.3-7A and DOE-STD-1189-2008.)</p>	<p>SAE or AE</p> <p>SAE or AE</p> <p>PSO ≥ \$750M FPD < \$750M</p> <p>---</p>
For projects with a TPC ≥ \$100M, OEMC will develop an Independent Cost Estimate and/or conduct an Independent Cost Review, as they deem appropriate.	
Comply with the One-for-One Replacement legislation (excess space/offset requirement) as mandated in House Report 109-86. (Refer to DOE O 430.1B.)	N/A to D&D
<p>Complete a Conceptual Design.</p> <p>Document <u>High Performance and Sustainable Building</u> provisions per EO 13423, Section 2(f), EO 13514, Section 2, and <u>Sustainable Environmental Stewardship</u> considerations per DOE O 436.1, in the Conceptual Design Report, Acquisition Strategy, and/or PEP, as appropriate. (Refer to DOE G 413.3-6A)</p> <p>Conduct a <u>Design Review</u> of the conceptual design with reviewers external to the project.</p> <p><i>For nuclear facilities, a <u>Code of Record</u> shall be initiated during the conceptual design.</i></p> <p>Complete a <u>Conceptual Design Report</u>. Refer to Appendix C, Paragraph 4.</p>	
Prepare a <u>Preliminary Hazard Analysis Report</u> (PHAR) for facilities that are below the Hazard Category 3 nuclear facility threshold as defined in 10 CFR Part 830, Subpart B.	Field Organization
Develop and implement an <u>Integrated Safety Management Plan</u> into management and work process planning at all levels per DOE O 450.2.	
Establish a <u>Quality Assurance Program</u> (QAP). (Refer to 10 CFR Part 830, Subpart A, DOE O 414.1C, and DOE G 413.3-2.) <i>For nuclear facilities, the applicable national consensus standard shall be NQA-1-2008 (Edition) and NQA-1a-2009 (Addenda).</i>	
Identify general <u>Safeguards and Security</u> requirements for the recommended alternative. (Refer to DOE M O 470.4B and DOE G 413.3-3A.)	
Complete a <u>National Environmental Policy Act (NEPA) Strategy</u> by issuing a determination (e.g., Environmental Assessment), as required by DOE O 451.1B. Prepare an <u>Environmental Compliance Strategy</u> , to include a schedule for timely acquisition of required permits and licenses.	
Update <u>Project Data Sheet</u> , or other funding documents for MIE and OE projects, and OMB 300s, if applicable. (Refer to OMB Budget Call for PDS and Exhibit 300 Template.)	
<i>For Hazard Category 1, 2, and 3 nuclear facilities, prepare a <u>Safety Design Strategy (SDS)</u>, with the concurrence of the CNS or with written advice of the CDNS, as appropriate, for projects subject to DOE-STD-1189-2008.</i>	SBAA and FPD
<i>For Hazard Category 1, 2, and 3 nuclear facilities, conduct an <u>Independent Project Review (IPR)</u> to ensure early integration of safety into the design process. (Refer to DOE G 413.3-9 and DOE-STD-1189-2008.)</i>	PSO

Prior to CD-1¹	Approval Authority²
<i>Prepare a <u>Conceptual Safety Design Report (CSDR)</u>³ for Hazard Category 1, 2, and 3 nuclear facilities, including preliminary hazard analysis. For a project involving a major modification of an existing facility, the SDS must address the need for a CSDR, as well as the required PDSA. (Refer to DOE-STD-1189-2008.)</i>	SBAA via the CSV
<i>Prepare a <u>Conceptual Safety Validation Report (CSV)</u>, with concurrence from the FPD, on the DOE review of the CSDR for Hazard Category 1, 2, and 3 nuclear facilities. (Refer to DOE-STD-1189-2008.)</i>	SBAA

Post CD-1 Approval	
Submit all CD documents to OECM.	
Begin expenditure of PED, MIE, or OE funds for the project design.	
Develop an Acquisition Plan, if applicable.	
Continue monthly PARS II reporting (excluding earned value). FPD, Program Manager and OECM will provide monthly assessments, as appropriate.	
Continue QPRs with the AE of their designee.	
<i>For nuclear facilities, develop a <u>Checkout, Testing and Commissioning Plan</u> in preparation for acceptance and turnover of the structures, systems and components at CD-4. (Refer to DOE-STD-1189-2008.)</i>	

NOTES:

1. Documents and reports are not intended to be stand-alone and may be combined.
2. Where no approval authorities are noted, authorities are established through other directives or the Program Offices (e.g., Functions and Requirements Assignment Matrix).
3. Per 10 CFR 830.206, a major modification of an existing Hazard Category 1, 2 or 3 nuclear facility requires the development of a Preliminary Documented Safety Analysis (PDSA) and its approval by DOE (10 CFR 830.207). Per DOE-STD-1189-2008, a SDS must be developed that addresses: (1) the need for a CSDR or Preliminary Safety Design Report (PSDR) as well as the required PDSA, to support project phases; (2) the graded content of the PDSA necessary to support the design and modification; (3) the application of nuclear safety design criteria; and (4) the interface with the existing facility, its operations, and construction activities.

4.c. CD-2, Approve Performance Baseline. (page A-9—11)

Table 2.2 - CD-2, Approve Performance Baseline.

Prior to CD-2 ¹	Approval Authority ²
Approve an updated Acquisition Strategy, if there are any major changes to the acquisition approach. Obtain endorsement from OECM for Major System Projects. (Refer to DOE G 413.3-13.)	PSO
Establish a Performance Baseline, reflective of identified and assessed risks and uncertainties, to include TPC, CD-4 date, and minimum KPPs. The key project milestones and completion dates shall be stated no less specific than month and year. The scope will be stated in quantity, size and other parameters that give shape and form to the project. The funding assumptions upon which the PB is predicated will be clearly documented and approved. Confirm that the PB cost does not exceed the top-end CD-1 cost range by more than 50% (or exceed it for early-funded construction projects). ⁴ (Refer to G 413.3-5A)	FPD
<p>Approve updated Project Execution Plan. (Refer to DOE G 413.3-15.)</p> <ul style="list-style-type: none"> • Prepare a Funding Profile to support the execution of the PB and reflect in the budget document. AE must consider fully funding projects (excluding MIE) with a TPC less than \$50M. The funding profile may be included in the PEP. • Approve Long-Lead Item Procurements, if necessary. Approval may be concurrent with (or prior to) CD-2 approval. (Long-lead item procurement approval will be designated as CD-3A.) 	SAE or AE
Develop a Project Management Plan, if applicable. (Refer to O413 Attachment 1.)	
<p>Complete a Preliminary Design.</p> <ul style="list-style-type: none"> • Incorporate the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings per EO 13423, Section 2(f), EO 13514, Section 2, and Sustainable Environmental Stewardship considerations per DOE O 436.1 into the preliminary design and design review. (Refer to DOE G 413.3-6A) • Conduct a Design Review of the preliminary design. • <i>For nuclear facilities, design reviews should include a focus on safety and security systems. Additionally, the Code of Record shall be placed under configuration control during preliminary design.</i> • Complete a Preliminary Design Report. 	
<p>Perform a Performance Baseline External Independent Review (EIR) or an Independent Project Review (IPR). OECM will conduct EIRs to validate the PB for projects with a TPC \geq \$100M. OECM must issue a Performance Baseline Validation Letter to the PSO that describes the cost, schedule, and scope being validated. PMSO will conduct IPRs to validate the PB for projects with a TPC $<$ \$100M. (Refer to DOE G 413.3-9)</p> <p>For projects with a TPC \geq \$100M, OECM will develop an Independent Cost Estimate (ICE). The ICE will support validation of the PB.</p> <p>Conduct a Project Definition Rating Index Analysis, as appropriate, for projects with a TPC \geq \$100M. OECM will review as part of the EIR. (Refer to DOE G 413.3-12.)</p>	<p>OECM \geq \$100M PMSO $<$ \$100M</p> <p>FPD</p>
For Major System Projects where new critical technologies are being developed, conduct a Technology Readiness Assessment and develop a Technology Maturation Plan, as appropriate. It is not required of a project if: (1) the technology was adequately demonstrated previously in one or more separate projects; or (2) the objective of the project is to research scientific principles. (Refer to DOE G 413.3-4A)	PSO
Employ an Earned Value Management System compliant with ANSI/EIA-748B, or as required by the contract. This is performed by the contractor. (Refer to DOE G 413.3-10A.)	

Prior to CD-2 ¹	Approval Authority ²
Prepare a Hazard Analysis Report for facilities that are below the Hazard Category 3 nuclear facility threshold as defined in 10 CFR Part 830, Subpart B by updating the PHAR based on new hazards and design information.	Field Organization
Determine that the Quality Assurance Program is acceptable and continues to apply. (Refer to 10 CFR Part 830, Subpart A, DOE O 414.1C, and DOE G 413.3-2.)	
Conduct a Preliminary Security Vulnerability Assessment, if necessary. (Refer to DOE O 470.4B and DOE G 413.3-3A.)	
Issue the final Environmental Impact Statement or Environmental Assessment and Finding of No Significant Impact, as required by 10 CFR Part 1021. For an Environmental Impact Statement, the appropriate authority shall issue the Record of Decision after CD-2 is granted, but prior to CD-3 approval. (Refer to DOE O 451.1B.)	
Update Project Data Sheet, or other funding documents for MIE and OE projects, and OMB 300s, if applicable. (Refer to OMB Budget Call for PDS and Exhibit 300 Template.)	
For Hazard Category 1, 2, and 3 nuclear facilities, conduct a Technical Independent Project Review (TIPR). The TIPR is required at or near the completion of the preliminary design. The TIPR is not required for non-nuclear facilities. (Refer to DOE G 413.3-9.)	PSO
For Hazard Category 1, 2, and 3 nuclear facilities, update the Safety Design Strategy, with the concurrence of CNS or with written advice from CDNS, as appropriate, for projects subject to DOE-STD-1189-2008.	SBAA and FPD
Prepare a Preliminary Safety Design Report (PSDR)³ that updates the CSDR for Hazard Category 1, 2, and 3 nuclear facilities based on updated hazard analysis and design information. For a project involving a major modification of an existing facility, the SDS must address the need for a PSDR, as well as the required PDSA. (Refer to DOE-STD-1189-2008.)	SBAA via the PSVR
Prepare a Preliminary Safety Validation Report (PSVR), with concurrence from the FPD, based on a DOE review of the PSDR for Hazard Category 1, 2, and 3 nuclear facilities. (Refer to DOE-STD-1189-2008.)	SBAA

Post CD-2 Approval	
Submit all CD documents, and if there are changes to the PB, submit BCP documents to OEMC.	
Submit budget request for the TPC.	
Obtain AE endorsement on any changes to the approved funding profile that negatively impacts the project.	
Continue monthly PARS II reporting (including earned value data). FPD, Program Manager and OEMC will provide monthly assessments.	
Continue QPRs with the AE or their designee.	
Initiate annual project peer review for projects with a TPC > \$100M.	

NOTES:

1. Documents and reports are not intended to be stand-alone and may be combined.
2. Where no approval authorities are noted, authorities are established through other directives or the Program Offices (e.g., Functions and Requirements Assignment Matrix).
3. Per 10 CFR 830.206, a major modification of an existing Hazard Category 1, 2 or 3 nuclear facility requires the development of a PDSA and its approval by DOE (10 CFR 830.207). Per DOE-STD-1189-2008, a SDS must be developed that addresses: (1) the need for a CSDR or PSDR as well as the required PDSA, to support project phases; (2) the graded content of the PDSA necessary to support the design and modification; (3) the application of nuclear safety design criteria; and (4) the interface with the existing facility, its operations, and construction activities.
4. O413 Page A6: If the top end of the original approved CD-1 cost range grows by more than 50% as the project proceeds toward CD-2, the Program, in coordination with the AE, must reassess the alternative selection process.

4.d. CD-3, Approve Start of Construction/Execution. (Page A-13—14)

Table 2.3 – CD-3, Approve Start of Construction/Execution

Prior to CD-3 ¹	Approval Authority ²
Approve updated CD-2 Project Documentation that reflects major changes from Final Design, the PEP, PB, AS, and PDS/funding documents for MIE and OE funds.	SAE or AE
Complete and review the Final Design or determine that the design is sufficiently mature to start procurement or construction. The FPD will ensure a constructability review is completed as part of the Final Design. <ul style="list-style-type: none"> • For nuclear facilities, the Code of Record is controlled during final design and construction with a process for reviewing and evaluating new and revised requirements. This will determine their impact on project safety, cost and schedule before a decision is made to revise the Code of Record. New or modified requirements are implemented if technical evaluations determine that there is a substantial increase in the overall protection of the worker, public or environment, and that the direct and indirect costs of implementation are justified in view of this increased protection. • Incorporate the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings per EO 13423, Section 2(f), EO 13514, Section 2, and Sustainable Environmental Stewardship considerations per DOE O 436.1 into the Final Design and the EIR. (Refer to DOE G 413.3-6A) 	
Employ a certified Earned Value Management System compliant with ANSI/EIA-748B, or as required by the contract. (Refer to DOE G 413.3-10A.)	Certified by: OECM ≥ \$100M; PMSO ≥ \$50M < \$100M; Contractor ≥ \$20M < \$50M
Perform an External Independent Review by OECM for Construction or Execution Readiness on all Major System Projects. (Refer to DOE G 413.3-9.) Perform an Independent Project Review by the appropriate PMSO for Non-Major System Projects unless justification is provided and a waiver is granted by the AE. For projects with a TPC ≥ \$100M, OECM will develop an Independent Cost Estimate, if warranted by risk and performance indicators or as designated by the SAE.	OECM ≥ \$750M PMSO < \$750M
For Major System Projects where a significant critical technology element modification occurs subsequent to CD-2, conduct a Technology Readiness Assessment, as appropriate. It is not required of a project if: (1) the technology was adequately demonstrated previously in one or more separate projects; or (2) the objective of the project is to research scientific principles. (Refer to DOE G 413.3-4A.)	PSO
Update the Hazard Analysis Report for facilities that are below the Hazard Category 3 nuclear facility threshold as defined in 10 CFR Part 830, Subpart B, based on new hazards and design information.	Field Organization
Prior to start of construction, prepare a Construction Project Safety and Health Plan ³ in accordance with 10 CFR Part 851, Appendix A, Section 1(d). This plan must be kept current during construction.	Field Organization
Update the Quality Assurance Program for construction, field design changes, and procurement activities. (Refer to 10 CFR Part 830, Subpart A, DOE O 414.1C, and DOE G 413.3-2)	
Finalize the Security Vulnerability Assessment Report, if necessary. (Refer to DOE O 470.4B and DOE G 413.3-3A)	
For Hazard Category 1, 2, and 3 nuclear facilities, update the Safety Design Strategy, with the concurrence of CNS or with written advice from CDNS, as appropriate, for projects subject to DOE-STD-1189-2008.	SBAA and FPD

Prior to CD-3 ¹	Approval Authority ²
<i>Prepare the Preliminary Documented Safety Analysis⁴ that updates the PSDR for newly planned Hazard Category 1, 2, and 3 nuclear facilities based on updated hazard analysis and design information; also for major modifications of existing facilities. (Refer to 10 CFR Part 830, Subpart B, and DOE-STD-1189-2008.)</i>	SBAA via the SER
<i>Prepare a Safety Evaluation Report, with concurrence from the FPD, based on review of the PDSA for Hazard Category 1, 2, and 3 nuclear facilities. (Refer to 10 CFR Part 830, Subpart B.)</i>	SBAA

Post CD-3 Approval	
Submit all CD documents to OECM.	
Commit all the resources necessary, within the funds provided and within the TPC, to execute the project.	
Within 90 days, submit Lessons Learned regarding up-front project planning and design to PSO and OECM.	
Update PDS, or other funding documents for MIE and OE, and OMB 300s, if applicable. (Refer to OMB Budget Call for PDS and Exhibit 300 Template.)	
Conduct EVMS surveillance to ensure compliance with ANSI/EIA-748B, or as defined in the contract. Contractor must conduct the surveillance annually. OECM and PMSO must conduct their surveillance during the tenure of the contract (at the contract midpoint or every two years, during contract extensions, or as requested by the AE).	Conducted by: OECM ≥ \$100M; PMSO ≥ \$50M < \$100M; Contractor ≥ \$20M < \$50M
Continue monthly PARS II reporting (including earned value data). FPD, Program Manager and OECM will provide monthly assessments.	
Continue QPRs with the AE or their designee.	
Continue annual project peer reviews for projects with a TPC > \$100M.	

NOTES:

1. Documents and reports are not intended to be stand-alone and may be combined.
2. Where no approval authorities are noted, authorities are established through other directives or the Program Offices (e.g., Functions and Requirements Assignment Matrix).
3. For Environmental Management Clean-up Projects, refer to 29 CFR 1910.120.
4. Per 10 CFR 830.206, a major modification of an existing Hazard Category 1, 2 or 3 nuclear facility requires the development of a PDSA and its approval by DOE (10 CFR 830.207). Per DOE-STD-1189-2008, a SDS must be developed that addresses: (1) the need for a CSDR or PSDR as well as the required PDSA, to support project phases; (2) the graded content of the PDSA necessary to support the design and modification; (3) the application of nuclear safety design criteria; and (4) the interface with the existing facility, its operations, and construction activities.

4e. Approve Start of Operations or Project Completion (Page A-15—16)

Table 2.4 - CD-4, Approve Start of Operations / Completion

Prior to CD-4 ¹	Approval Authority ²
Verify that Key Performance Parameters and Project Completion Criteria have been met and that mission requirements have been achieved. The FPD will verify and document the scope accomplished, TPC, KPPs met, and the completion date as it relates to the original CD-2 performance baseline and the latest approved baseline change.	FPD
Issue a Project Transition to Operations Plan ³ that clearly defines the basis for attaining initial operating capability, full operating capability, or project closeout, as applicable. The plan will include documentation, training, interfaces, and draft schedules. (Refer to DOE G 413.3-16A)	
For non-nuclear projects, conduct a formal assessment of the project's Readiness to Operate, as appropriate. Determine the basis for DOE acceptance of the asset and if the facility or area can be occupied from both a regulatory and a work function standpoint. Establish a beneficial occupancy/utilization date for the facility and/or equipment.	
Finalize the Hazard Analysis Report for facilities that are below the Hazard Category 3 threshold as defined in 10 CFR Part 830, Subpart B.	Field Organization
Revise the Environmental Management System in accordance with DOE O 436.1, as appropriate.	
If applicable, complete and submit Contractor Evaluation Documents to the AE, the appropriate PSO, OPAM, and OECM in accordance with FAR 42.15.	
<p>For Hazard Category 1, 2, and 3 nuclear facilities...</p> <p><i>Conduct an Operational Readiness Review (ORR) or Readiness Assessment (RA) in accordance with DOE O 425.1D and DOE-STD-3006-2010.</i></p> <p><i>Prepare the Documented Safety Analysis³ with Technical Safety Requirements. (Refer to 10 CFR Part 830, Subpart B.)</i></p> <p><i>Prepare a Safety Evaluation Report (SER) based on a review of the Documented Safety Analysis and Technical Safety Requirements. (Refer to 10 CFR Part 830, Subpart B.)</i></p> <p>For nuclear facilities, the Code of Record will be included as part of the turnover documentation from a design and construction phase contractor to the operating phase contractor; from an operating phase contractor to the decommissioning phase contractor; and when a change in contractor occurs during any single life-cycle phase and is maintained under configuration control.</p>	SBAA via the SER SBAA
Post CD-4	
Submit all CD documents to OECM.	
Finalize PARS II reporting (including earned value data).	
Within 90 days, submit Lessons Learned regarding project execution and facility start-up to PSO and OECM.	
Within 90 days, submit an Initial Project Closeout Report.	

NOTES:

1. Documents and reports are not intended to be stand-alone and may be combined.
2. Where no approval authorities are noted, authorities are established through other directives or the Program Offices (e.g., Functions and Requirements Assignment Matrix).
3. For Environmental Management Clean-up Projects, refer to 29 CFR 1910.120.

CD-2/3 EM Remediation: Approve Performance Baseline and Start of Construction.

Tailored from O413.3B, App. A: Requirements, 4. CDs: Table 2.2 and 2.3

Prior to CD-2/3 ¹	Approval Authority ²
Approve an updated Acquisition Strategy, if there are any major changes to the acquisition approach. Obtain endorsement from OEMC for Major System Projects. (Refer to G 413.3-13)	PSO
Establish a Performance Baseline, reflective of identified and assessed risks and uncertainties, to include TPC, CD-4 date, and minimum KPPs. The key project milestones and completion dates shall be stated no less specific than month and year. The scope will be stated in quantity, size and other parameters that give shape and form to the project. The funding assumptions upon which the PB is predicated will be clearly documented and approved. Confirm that the PB cost does not exceed the top-end CD-1 cost range by more than 50% (or exceed it for early-funded construction projects) ⁵ . (Refer to DOE G 413.3-5A)	FPD
Approve a final Project Execution Plan. (Refer to DOE G 413.3-15) <ul style="list-style-type: none"> • Prepare a Funding Profile to support the execution of the PB and reflect in the budget document. AE must consider fully funding projects (excluding MIE) with a TPC less than \$50M. The funding profile may be included in the PEP. • Approve Long-Lead Item Procurements, if necessary. Approval may be concurrent with (or prior to) CD-2 approval. Long-lead item procurement approval will be designated as CD-3A. 	SAE or AE
Develop a Project Management Plan, if applicable. (Refer to O413 Attachment 1)	Contractor
Complete and review the Final Design or determine that the design is sufficiently mature to start procurement or construction. <ul style="list-style-type: none"> • The FPD will ensure a constructability review is completed as part of the Final Design. • For nuclear facilities, finalize and review any safety or security system requirements. • For nuclear facilities, the Code of Record is controlled during final design and construction with a process for reviewing and evaluating new and revised requirements. This will determine their impact on project safety, cost and schedule before a decision is made to revise the Code of Record. New or modified requirements are implemented if technical evaluations determine that there is a substantial increase in the overall protection of the worker, public or environment, and that the direct and indirect costs of implementation are justified in view of this increased protection. • Incorporate the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings per EO 13423, Section 2(f), EO 13514, Section 2, and Sustainable Environmental Stewardship considerations per DOE O 436.1 into the Final Design and the EIR. (Refer to DOE G 413.3-6A) • Complete a Final Design Report. 	FPD
Perform an External Independent Review or Independent Project Review as required. <ul style="list-style-type: none"> • OEMC will conduct EIRs to validate the PB projects with a TPC \geq \$100M. OEMC must issue a Performance Baseline Validation Letter to the PSO that describes the cost, schedule, and scope being validated. For projects with a TPC \geq \$100M, OEMC will develop an Independent Cost Estimate (ICE). The ICE will support validation of the PB. • PMSO will conduct IPRs to validate the PB for projects with a TPC $<$ \$100M. (Refer to DOE G 413.3-9) • Conduct a Project Definition Rating Index Analysis, as appropriate, for projects with a TPC \geq \$100M. OEMC will review as part of the EIR. (Refer to DOE G 413.3-12) • OEMC will conduct a Construction Readiness Review on all Major System Projects. • The appropriate PMSO will perform a Construction Independent Project Review for Non-Major System Projects unless justification is provided and a waiver is granted by the AE. 	<p>OEMC \geq \$100M</p> <p>PMSO $<$ \$100M</p> <p>FPD</p> <p>OEMC \geq \$750M</p> <p>PMSO $<$ \$750M</p>

Prior to CD-2/3 ¹	Approval Authority ²
For Major System Projects where new critical technologies are being developed, conduct a Technology Readiness Assessment and develop a Technology Maturation Plan, as appropriate. It is not required of a project if: (1) the technology was adequately demonstrated previously in one or more separate projects; or (2) the objective of the project is to research scientific principles. (Refer to DOE G 413.3-4A)	PSO
The Contractor will employ an Earned Value Management System compliant with ANSI/EIA-748B, or as required by the contract. (Refer to DOE G 413.3-10A) Employ a certified Earned Value Management System compliant with ANSI/EIA-748B, or as required by the contract. (Refer to DOE G 413.3-10A)	Certified by: OECM ≥ \$100M; PMSO ≥ \$50M <\$100M; Contractor ≥ \$20M < \$50M
Prepare a Hazard Analysis Report for facilities that are below the Hazard Category 3 nuclear facility threshold as defined in 10 CFR Part 830, Subpart B by updating the PHAR based on new hazards and design information.	Field Organization
Prior to start of construction, prepare a Construction Project Safety and Health Plan ³ in accordance with 10 CFR Part 851, Appendix A, Section 1(d). This plan must be kept current during construction.	Field Organization
Review and update, as needed, the Quality Assurance Program for construction, field design changes, and procurement activities. (Refer to 10 CFR Part 830, Subpart A, DOE O 414.1D, and DOE G 413.3-2.)	
Prepare a Security Vulnerability Assessment Report, if necessary. (Refer to DOE O 470.4B and DOE G 413.3-3A)	
Issue the final Environmental Impact Statement or Environmental Assessment and Finding of No Significant Impact, as required by 10 CFR Part 1021. For an Environmental Impact Statement, the appropriate authority shall issue the Record of Decision after CD-2 is granted, but prior to CD-3 approval. (Refer to DOE O 451.1B)	
Update Project Data Sheet, or other funding documents for MIE and OE projects, and OMB 300s, if applicable, to reflect major changes from Final Design. (Refer to OMB Budget Call for PDS and Exhibit 300 Templates)	SAE or AE
<p>For Hazard Category 1, 2, and 3 nuclear facilities...</p> <p>Conduct a Technical Independent Project Review (TIPR). The TIPR is required at or near the completion of the preliminary design. The TIPR is not required for non-nuclear facilities. (Refer to DOE G 413.3-9.)</p> <p>Update the Safety Design Strategy, with the concurrence of CNS or with written advice from CDNS, as appropriate, for projects subject to DOE-STD-1189-2008.</p> <p>Prepare the Preliminary Documented Safety Analysis⁴ that updates CSDR for newly planned nuclear facilities based on updated hazard analysis and design information; also for major modifications of existing facilities. (Refer to 10 CFR Part 830, Subpart B, and DOE-STD-1189-2008.)</p> <p>Prepare a Safety Evaluation Report, with concurrence from the FPD, based on review of the PDSA. (Refer to 10 CFR Part 830, Subpart B.)</p>	<p>PSO</p> <p>SBAA and FPD</p> <p>SBAA via the SER</p> <p>SBAA</p>
Post CD-2/3 Approval	
Submit all CD documents to OECM. If there are changes to the PB, submit BCP documents to OECM.	
Update PDS, or other funding documents for MIE and OE, and OMB 300s, if applicable. (Refer to OMB Budget Call for PDS and Exhibit 300 Template.)	
Commit all the resources necessary, within the funds provided and within the TPC, to execute the project. Obtain AE endorsement on any changes to the approved funding profile that negatively impacts the project.	

Post CD-2/3 Approval	
Submit all CD documents to OECM. If there are changes to the PB, submit BCP documents to OECM.	
Update PDS, or other funding documents for MIE and OE, and OMB 300s, if applicable. (Refer to OMB Budget Call for PDS and Exhibit 300 Template.)	
Commit all the resources necessary, within the funds provided and within the TPC, to execute the project. Obtain AE endorsement on any changes to the approved funding profile that negatively impacts the project.	
Within 90 days, submit Lessons Learned regarding up-front project planning and design to PSO and OECM.	
Conduct EVMS surveillance to ensure compliance with ANSI/EIA-748B, or as defined in the contract. Contractor must conduct the surveillance annually. OECM and PMSO must conduct their surveillance during the tenure of the contract (at the contract midpoint or every two years, during contract extensions, or as requested by the AE).	Conducted by: OECM \geq \$100M; PMSO \geq \$50M < \$100M; Contractor \geq \$20M < \$50M
Continue monthly PARS II reporting (including earned value data). FPD, Program Manager and OECM will provide monthly assessments.	
Continue QPRs with the AE or their designee.	
Conduct annual project peer review for projects with a TPC > \$100M.	

NOTES:

1. Documents and reports are not intended to be stand-alone and may be combined.
2. Where no approval authorities are noted, authorities are established through other directives or the Program Offices (e.g., Functions and Requirements Assignment Matrix).
3. For Environmental Management Clean-up Projects, refer to 29 CFR 1910.120.
4. Per 10 CFR 830.206, a major modification of an existing Hazard Category 1, 2 or 3 nuclear facility requires the development of a PDSA and its approval by DOE (10 CFR 830.207). Per DOE-STD-1189-2008, a SDS must be developed that addresses: (1) the need for a CSDR or PSDR as well as the required PDSA, to support project phases; (2) the graded content of the PDSA necessary to support the design and modification; (3) the application of nuclear safety design criteria; and (4) the interface with the existing facility, its operations, and construction activities.
5. O413 Page A6: If the top end of the original approved CD-1 cost range grows by more than 50% as the project proceeds toward CD-2, the Program, in coordination with the AE, must reassess the alternative selection process.

CD-1/2/3 EM Remediation: Approve Alternate Selection, Performance Baseline and Start of Construction.

Tailored from O413.3B, App. A. Requirements: 4. CDs: Table 2.1, 2.2, and 2.3. See para. A5a

Prior to CD-1/2/3 ¹	Approval Authority ²
Approve an Acquisition Strategy with endorsement from OEMC for Major System Projects. (Refer to G 413.3-13.)	PSO
Establish a Performance Baseline, reflective of identified and assessed risks and uncertainties, to include TPC, CD-4 date, and minimum KPPs. The key project milestones and completion dates shall be stated no less specific than month and year. The scope will be stated in quantity, size and other parameters that give shape and form to the project. The funding assumptions upon which the PB is predicated will be clearly documented and approved. (Refer to DOE G 413.3-5A.)	FPD
<p>Approve a Project Execution Plan. (Refer to DOE G 413.3-15.)</p> <ul style="list-style-type: none"> • Approve appointment of the Federal Project Director considering the requirements in DOE O 361.1B. • The Tailoring Strategy can be included in the PEP or placed in a separate document. (Refer to DOE G 413.3-15.) • Prepare a Funding Profile to support the execution of the PB and reflect in the budget document. AE must consider fully funding projects (excluding MIE) with a TPC less than \$50M. The funding profile may be included in the PEP. • Establish and charter an Integrated Project Team to include a responsibility assignment matrix. The Charter may be included in the PEP. (Refer to DOE G 413.3-18A) <p>Develop a Risk Management Plan (RMP). This may be included in the PEP. For evaluating the Safety-in-Design Strategy, prepare Risk and Opportunity Assessments for input to the RMP. (Refer to DOE G 413.3-7A and DOE-STD-1189-2008.)</p>	<p>SAE or AE</p> <p>PSO ≥ \$750M FPD < \$750M</p>
Develop a Project Management Plan, if applicable. (Refer to O 413.3B Attachment 1)	Contractor
Comply with the One-for-One Replacement legislation (excess space/offset requirement) as mandated in House Report 109-86. (Refer to DOE O 430.1B)	N/A to D&D, usually
<p>Complete and review the Final Design or determine that the design is sufficiently mature to start procurement or construction.</p> <ul style="list-style-type: none"> • The FPD will ensure a constructability review is completed as part of the Final Design. • For nuclear facilities, finalize and review any safety or security system requirements. • For nuclear facilities, the Code of Record is controlled during final design and construction with a process for reviewing and evaluating new and revised requirements. This will determine their impact on project safety, cost and schedule before a decision is made to revise the Code of Record. New or modified requirements are implemented if technical evaluations determine that there is a substantial increase in the overall protection of the worker, public or environment, and that the direct and indirect costs of implementation are justified in view of this increased protection. • Incorporate the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings per EO 13423, Section 2(f), EO 13514, Section 2, and Sustainable Environmental Stewardship considerations per DOE O 436.1 into the Final Design and the EIR. (Refer to DOE G 413.3-6A) • Complete a Final Design Report. 	

Prior to CD-1/2/3 ¹	Approval Authority ²
<p>Perform an External Independent Review or Independent Project Review as required.</p> <ul style="list-style-type: none"> • OECM will conduct EIRs to validate the PB projects with a TPC \geq \$100M. OECM must issue a Performance Baseline Validation Letter to the PSO that describes the cost, schedule, and scope being validated. For projects with a TPC \geq \$100M, OECM will develop an Independent Cost Estimate (ICE). The ICE will support validation of the PB. • PMSO will conduct IPRs to validate the PB for projects with a TPC $<$ \$100M. (Refer to DOE G 413.3-9) • Conduct a Project Definition Rating Index Analysis, as appropriate, for projects with a TPC \geq \$100M. OECM will review as part of the EIR. (Refer to DOE G 413.3-12.) • OECM will conduct a Construction Readiness Review on all Major System Projects. • The appropriate PMSO will perform a Construction Independent Project Review for Non-Major System Projects unless justification is provided and a waiver is granted by the AE. (Refer to DOE G 413.3-9.) 	<p>OECM \geq \$100M</p> <p>PMSO $<$ \$100M</p> <p>FPD</p> <p>OECM \geq \$750M</p> <p>PMSO $<$ \$750M</p>
<p>For Major System Projects where new critical technologies are being developed, conduct a Technology Readiness Assessment and develop a Technology Maturation Plan, as appropriate. It is not required of a project if: (1) the technology was adequately demonstrated previously in one or more separate projects; or (2) the objective of the project is to research scientific principles. (Refer to DOE G 413.3-4A)</p>	<p>PSO</p>
<p>The Contractor will employ an Earned Value Management System compliant with ANSI/EIA-748B, or as required by the contract. (Refer to DOE G 413.3-10A)</p> <p>Employ a certified Earned Value Management System compliant with ANSI/EIA-748B, or as required by the contract. (Refer to DOE G 413.3-10A)</p>	<p>Certified by: OECM \geq \$100M; PMSO \geq \$50M $<$ \$100M; Contractor \geq \$20M $<$ \$50M</p>
<p>Prepare a Hazard Analysis Report for facilities that are below the Hazard Category 3 nuclear facility threshold as defined in 10 CFR Part 830, Subpart B by updating the PHAR based on new hazards and design information.</p>	<p>Field Organization</p>
<p>Develop and implement an Integrated Safety Management Plan into management and work process planning at all levels per DOE O 450.2.</p>	
<p>Prior to start of construction, prepare a Construction Project Safety and Health Plan³ in accordance with 10 CFR Part 851, Appendix A, Section 1(d). This plan must be kept current during construction.</p>	<p>Field Organization</p>
<p>Review and update, as needed, the Quality Assurance Program for construction, field design changes, and procurement activities. (Refer to 10 CFR Part 830, Subpart A, DOE O 414.1C, and DOE G 413.3-2.)</p>	
<p>Identify the Safeguards and Security requirements. Prepare a Security Vulnerability Assessment Report, if necessary. (Refer to DOE O 470.4B and DOE G 413.3-3A)</p>	
<p>Issue the final Environmental Impact Statement or Environmental Assessment and Finding of No Significant Impact, as required by 10 CFR Part 1021. For an Environmental Impact Statement, the appropriate authority shall issue the Record of Decision after CD-2 is granted, but prior to CD-3 approval. (Refer to DOE O 451.1B.)</p>	
<p>Prepare a Project Data Sheet, or other funding documents for MIE and OE projects, and OMB 300s, if applicable, to reflect the Final Design and funding profile. (Refer to OMB Budget Call for PDS and Exhibit 300 Template.)</p>	<p>SAE or AE</p>

Prior to CD-1/2/3 ¹	Approval Authority ²
<p>For Hazard Category 1, 2, and 3 nuclear facilities...</p> <p>Prepare a Safety Design Strategy, with the concurrence of CNS or with written advice from CDNS, as appropriate, for projects subject to DOE-STD-1189-2008.</p> <p>Conduct an <u>Independent Project Review</u> (IPR) to ensure early integration of safety into the design process. (Refer to DOE G 413.3-9 and DOE-STD-1189-2008.)</p> <p>Conduct a Technical Independent Project Review (TIPR). The TIPR is required at or near the completion of the preliminary design. The TIPR is not required for non-nuclear facilities. (Refer to DOE G 413.3-9.)</p> <p>Prepare the Preliminary Documented Safety Analysis⁴ for newly planned nuclear facilities based on updated hazard analysis and design information; also for major modifications of existing facilities. (Refer to 10 CFR Part 830, Subpart B, and DOE-STD-1189-2008.)</p> <p>Prepare a Safety Evaluation Report, with concurrence from the FPD, based on review of the PDSA. (Refer to 10 CFR Part 830, Subpart B.)</p>	<p>SBAA and FPD</p> <p>PSO</p> <p>PSO</p> <p>SBAA via the PSVR</p> <p>SBAA</p>

Post CD-1/2/3 Approval	
Submit all CD documents to OECM. If there are changes to the PB, submit BCP documents to OECM.	
Update PDS, or other funding documents for MIE and OE, and OMB 300s, if applicable. (Refer to OMB Budget Call for PDS and Exhibit 300 Template.)	
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