

<i>Preconceptual Planning</i>	<i>Conceptual Design</i>	<i>Preliminary Design</i>	<i>Final Design</i>	<i>Construction</i>	<i>Operations</i>
❖ <b>CD-0</b> Approve Mission Need	❖ <b>CD-1</b> Approve Alternative Selection & Cost Range	❖ <b>CD-2</b> Approve Performance Baseline	❖ <b>CD-3</b> Approve Start of Construction	❖ <b>CD-4</b> Approve Start of Operations or Project Completion	

**Actions Authorized by Critical Decision (CD) Approval**

CD-0	CD-1	CD-2	CD-3	CD-4
<ul style="list-style-type: none"> <li>Proceed with Conceptual Design</li> <li>Request PED funding</li> <li>Start monthly PARS &amp; Quarterly Project Performance reporting</li> </ul>	<ul style="list-style-type: none"> <li>Allow Expenditure of PED Funds for preliminary design</li> <li>Approval of long-lead procurement if necessary</li> </ul>	<ul style="list-style-type: none"> <li>Establish Performance Baseline</li> <li>Continue design</li> <li>Request construction funding</li> </ul>	<ul style="list-style-type: none"> <li>Approve expenditure of funds for construction</li> </ul>	<ul style="list-style-type: none"> <li>Allow start of operations or project completion</li> </ul>

**Non-Nuclear Facilities--Prerequisite Activities for CDs**

<ul style="list-style-type: none"> <li>Review of Mission Need Statement (MSN) by Office of Program Analysis &amp; Evaluation (CF-20) for \$100M or greater.</li> <li>Perform Mission Need Independent Project Review (IPR) for Major System (MS) projects (&gt;=\$750K)</li> <li>Perform Pre-conceptual Planning</li> <li>Evaluate Information Technology (IT) projects with Departmental Enterprise Architecture framework</li> </ul>	<ul style="list-style-type: none"> <li>Review of Acquisition Strategy (AS) (OECM review for MS project)</li> <li>Review of Conceptual Design                             <ul style="list-style-type: none"> <li>Requirements Analysis</li> <li>Risk Analysis</li> <li>Alternative Analysis</li> <li>Value Management determination</li> </ul> </li> <li>Assess Requirements Analysis, Risk Analysis, Alternative Analysis, &amp; Value Management.</li> <li>Appoint FPD</li> <li>Establish &amp; charter Integrated Project Team</li> <li>Ensure compliance with One-for-One Replacement requirement for building square footage</li> <li>Ensure Integrated Safety Management Implementation</li> <li>Ensure consideration for High Performance Sustainable Building</li> <li>Assess if QA Program is acceptable</li> </ul>	<ul style="list-style-type: none"> <li>Perform Baseline External Independent Review (EIR) &amp; validation by OECM for \$100M or greater. Perform Independent Cost Review or Independent Cost Estimates for MS project as part of EIR</li> <li>Program IPR for \$20M to less than \$100M</li> <li>Review of Preliminary Design</li> <li>Establish compliant project EVMS for \$20M or more, &amp; OECM certifiable EVMS for project TPC with \$50M or more</li> <li>Conduct Value Engineering (as applicable)</li> <li>Incorporate High Performance Sustainable Building provisions into design</li> <li>Determine if QA Program is acceptable</li> </ul>	<ul style="list-style-type: none"> <li>Perform Executability EIR by OECM for MS projects</li> <li>Perform IPR for Non-MS projects by Program (SC)</li> </ul>	<ul style="list-style-type: none"> <li>Verify Key Performance Parameter or Completion Criteria achieved</li> <li>Perform Readiness Assessment or Operational Readiness Review</li> <li>Revise environmental management system.</li> </ul> <p><u>Post CD-4 Closeout</u></p> <ul style="list-style-type: none"> <li>Perform Final Administrative &amp; Financial Closeout</li> <li>Conduct Post Implementation Review for IT projects</li> </ul>
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**Hazard Category 1, 2, and 3 Nuclear Facilities--Additional Prerequisite Activities/Documents for CDs**

	<ul style="list-style-type: none"> <li>Perform Technical IPR</li> <li>Prepare Conceptual Safety Design Report (SDR)</li> <li>Prepare a Preliminary Safety Validation Report (PSVR)</li> </ul>	<ul style="list-style-type: none"> <li>Prepare Preliminary SDR</li> <li>Prepare a PSVR based on updated design</li> </ul>	<ul style="list-style-type: none"> <li>Prepare Preliminary Documented Safety Analysis Report (SAR)</li> <li>Prepare SER</li> </ul>	<ul style="list-style-type: none"> <li>Prepare Documented SAR with Technical Safety Requirements</li> <li>Prepare SER</li> </ul>
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**Prerequisite Documents**

<ul style="list-style-type: none"> <li>MNS</li> <li>Tailoring Strategy</li> </ul>	<ul style="list-style-type: none"> <li>Acquisition Strategy</li> <li>Conceptual Design Report</li> <li>Risk Management Plan</li> <li>Risk Assessment</li> <li>Preliminary PEP,</li> <li>Preliminary Hazard Analysis (HA),</li> <li>Preliminary Security Vulnerability Assessment Report (SVAR)</li> <li>Initial Cyber Security Plan for IT projects.</li> <li>QA Program Documentation</li> </ul>	<ul style="list-style-type: none"> <li>Performance Baseline</li> <li>Preliminary Design</li> <li>Updated Risk Assessment</li> <li>Updated PEP</li> <li>Updated HA (Approved at Field Level)</li> <li>Updated Preliminary SVAR</li> <li>NEPA Documentation</li> <li>Updated Initial Cyber Security Plan for IT projects</li> </ul>	<ul style="list-style-type: none"> <li>Final Design</li> <li>Updated CD-2 documents</li> <li>Updated QA Program</li> <li>An Approved Construction Project Safety &amp; Health Plan</li> <li>Updated Cyber Security Plan for IT projects</li> </ul>	<ul style="list-style-type: none"> <li>Checkout, Testing &amp; Commissioning Plan</li> <li>Project Transition/ Closeout Plan</li> <li>Transition-to-Operations Plan</li> <li>Finalized QA Plan, SVAR, HA Report, Construction Project Safety &amp; Health Plan,</li> <li>Finalized Cyber Security Plan for IT projects &amp; completed Certification &amp; Accreditation, as required</li> </ul> <p><u>Post CD-4 Closeout</u></p> <ul style="list-style-type: none"> <li>Final Project Closeout Report</li> <li>Lessons Learned Report</li> <li>Required Operational Documentation</li> </ul>
AS-Acquisition Strategy EIR-External Independent Review EVMS-Earned Value Mgmt. System HA-Hazard Analysis IPR-Internal Project Review	MNS-Mission Need Statement MS-Major Systems OECM-Office of Engr. & Const. Mgmt. QA-Quality Assurance PSVR- Prelim. Safety Validation Report	SAR-Safety Analysis Report SDR-Safety Design Report SER-Safety Evaluation Report SVAR-Security Vulnerability Assess. Report TPC-Total Project Cost		

**Budget Related Documents**

<ul style="list-style-type: none"> <li>After CD-0 approval, Exhibit 300 for Projects =&gt;\$20M: Annual submission initiated during the federal budget cycle when funds are requested.</li> <li>Project Data Sheets: Annual submission initiated during the federal budget cycle when TEC funds are requested.</li> </ul>
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