

U.S. Department of Energy

Office of Management, Budget and Evaluation

Critical Decision
Packages



Initiated by: Office of Engineering and Construction Management

CRITICAL DECISION PACKAGES

1.0 OVERVIEW

Critical Decisions are formal determinations made at specific points in a project's life cycle. Critical Decisions are gates identifying the exit point from one phase and entry into the next phase. Each Critical Decision addresses commitments to be met before a project is allowed to proceed to the next phase or to commit additional resources. A comprehensive request for critical decisions requires development of five major Critical Decisions. Critical Decisions can be presented either in combination or singly, depending upon the project. They include the following:

- Critical Decision-0, Approve Mission Need
- Critical Decision-1, Approve Alternative Selection and Cost Range
- Critical Decision-2, Approve Performance Baseline
- Critical Decision-3, Approve Start of Construction
- Critical Decision-4, Approve Start of Operations or Project Closeout.

These Critical Decisions (see Figure 1) should be uniformly adopted for all traditional construction projects and software engineering projects, but tailored using project-specific factors such as complexity, project cost, risk management, and uncertainty. Critical Decisions may be approved simultaneously for projects with low complexity. Such approvals should be noted in the mission need documentation.

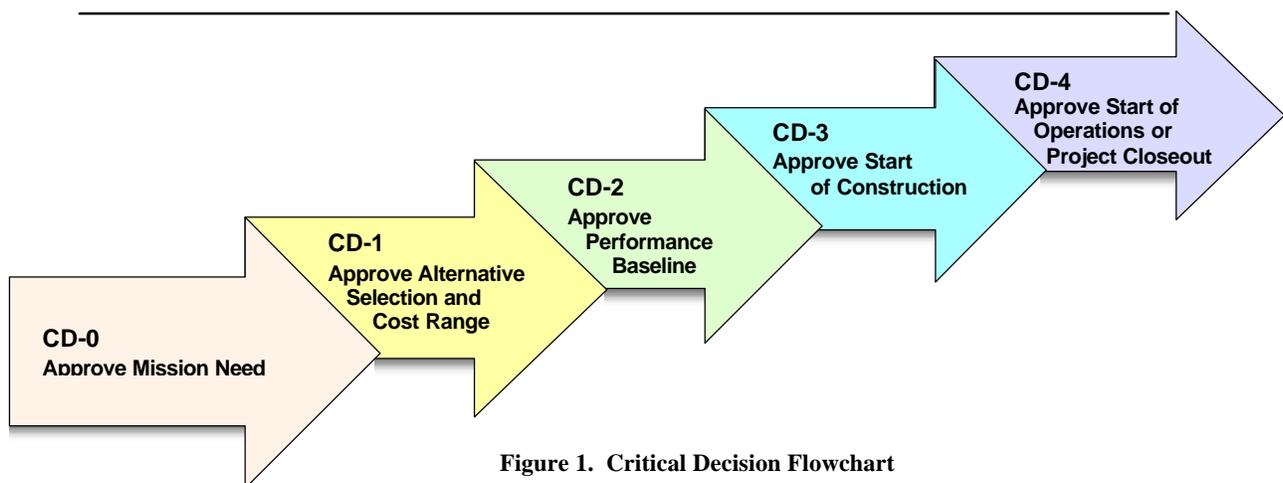


Figure 1. Critical Decision Flowchart

2.0 TAILORED CRITICAL DECISIONS

The system project model has been used as the basis for the information provided in both the DOE Manual 413.3-1 and the associated Practices. Projects other than the system project model include environmental restoration, facility disposition, software engineering, and privatization.

Environmental restoration and facility disposition projects are driven by the regulatory requirements in the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) or the Resource Conservation and Recovery Act (RCRA). Therefore, Energy Systems Acquisition Advisory Boards (ESAABs) may not be required for environmental restoration or facility disposition projects due to statutory time limits, potential fines, extensive documentation requirements, and the overall nature of the Critical Decisions. This decision is at the discretion of the Secretarial Acquisition Executive (SAE)/Acquisition Executive (AE). Consequently, the critical decisions and thresholds for these two project types may be considerably different from those of the system project model. For example:

- Environmental Restoration Project Critical Decisions
 - Critical Decision-0, Approve Mission Need
 - Critical Decision-1, Approve Alternative Selection and Cost Range
 - Critical Decision-2/3, Approve Performance Baseline and Authorization to Implement
 - Critical Decision-4, Approve Start of Operations or Project Closeout.
- Facility Disposition Project Critical Decisions
 - Critical Decision-0, Approve Mission Need
 - Critical Decision-1/2, Approve Alternative Selection and Performance Baseline
 - Critical Decision-3, Approve Start of Construction
 - Critical Decision-4, Approve Start of Operations or Project Closeout

Other projects that may combine Critical Decisions are:

- Design-Build Critical Decisions
 - Critical Decision-0/1, Approve Mission Need, Alternative Selection and Cost Range
 - Critical Decision-2/3, Approve Performance Baseline and Authorization to Execute
 - Critical Decision-4, Approve Start of Operations or Project Closeout.
- Privatization Project Critical Decisions
 - Critical Decisions for privatization projects are as identified and addressed in the Acquisition Strategy (AS) as these projects are driven by contractual agreements, and

the contract manager may not reflect traditional decision points as risk is shifted to the contractor.

Critical Decisions are a requirement throughout the planning and execution of a project, and the approval of each Critical Decision is necessary before the project proceeds to the next phase. Partial or phased Critical Decisions may also be proposed, depending on the complexity, duration, and needs of the project. Each project is encouraged to tailor the Critical Decision process to reflect project needs.

3.0 CRITICAL DECISION PREREQUISITES

A common prerequisite for obtaining DOE-Headquarters approval of several of the critical decisions is the performance of independent reviews. The purpose of these reviews is to provide the SAE/AE with a relatively recent assessment of a project's status by a qualified review team that is responsible for or involved in the project. When required, the review is performed prior to approving the associated Critical Decision. The environmental management Project Rating Definition Index is a structured approach that has been developed for the review process.

Although a project is not expected to fund the cost of an independent Critical Decision review, the project director (PD) should include, in the project's baseline cost estimate, an allowance for the project's cost to support these reviews. The PD should also include in the project's baseline schedule, the time that will be required for the project to support the independent reviews, and at least one milestone for each required review.

Independent Critical Decision reviews are within the purview of DOE-Headquarters. However, the performance of these reviews does not prevent a PD (or other responsible DOE managers) from requesting and performing other independent project reviews. These reviews could be performed at any time, with their scope ranging from a spot or single topic Quality Assurance audit to a broad overall project review. PDs and project managers (PMs) are encouraged to use independent reviews as another tool to enhance the probability of the project meeting its goals and commitments.

The most common project reviews include the following:

3.1 External Independent Review

An external independent review (EIR) is a review conducted prior to specific project Critical Decisions by reviewers outside the DOE. Because of their importance to both the project and the DOE, these reviews are planned, scheduled, structured, and controlled. OECM, in conjunction with the Program and Project, selects an appropriate contracting agency, excluding the Management and Integration/Management and Operating (M&O/M&I) organizations, to perform these reviews. The selection of reviewers, contract management and their contact with

the Contracting Officer, and dialogue with the EIR contractor on matters pertaining to the contract are the sole purview of OMBE. The Under Secretary for Energy, Science and Environment and the Administrator for NNSA (Undersecretary/Administrator) and the Project Management Support Office provides coordination for the EIR contractor on site, resolves issues of schedule and access while on site, gathers and provides requested and proffered information to the reviewers, and responds to the reviewer on errors of fact or needed clarification. The Project Management Support Office does not provide oversight or direction to the reviewers on the content of the reviewer's report.

EIRs are performed by OECM and managed by OMBE as DOE's agent. Line management, including the Deputy Secretary, Undersecretary/Administrator, or a program or project organization within the Undersecretary/Administrator, may request an EIR. EIRs also may be initiated in response to an external requirement. However, reviews, studies, or investigations conducted by the General Accounting Office or the Office of the Inspector General are not considered EIRs for DOE purposes. OMBE coordinates all such reviews with the appropriate Undersecretary/Administrator to define the review scope, choose an optimal time during the acquisition process to minimize project impacts, minimize the impact on the project by conducting multiple reviews, and evaluate the credentials of potential reviewing organizations and individuals.

The following EIRs are conducted on projects having a total project cost (TPC) greater than \$5M:

- *Performance Baseline Validation EIR*. This is a detailed review of the entire project performed prior to Critical Decision-2. It verifies the mission need; validates the proposed or preliminary technical, cost, and schedule baselines; and assesses the overall status of the project's management and control system.
- *Independent Cost Review (ICR)*. Independent Cost Reviews are used primarily to verify project cost estimates and support the Critical Decision-2 process in establishing project performance baselines. ICRs usually are part of the performance baseline EIR and may include an Independent Cost Estimate (ICE). However, an ICR and an ICE may be requested at other times and for other reasons.
- *Construction or Execution Readiness EIR*. This is a general review required for a Major Systems project, only prior to Critical Decision-3, that may range from an abridged review of specific areas within a project to a comprehensive review of the entire project. At a minimum, it verifies the readiness of the project to proceed into construction or remedial action.
- *Independent Cost Estimates*. ICEs are used to verify project cost and schedule estimates, and support the Critical Decision-2 process in establishing project performance baselines. ICEs are part of the Baseline Validation EIR, although an ICE can be combined with an EIR or Independent Project Review for efficiency. OECM works through appropriate

contracting officers to establish contracts for ICEs. ICEs are documented in formal reports submitted to the SAE/AE by OECM. Each ICE is reconciled with the current Program Office estimate by the PD.

3.2 Internal Project Review/Independent Review

An Internal Project Review may also be performed during this time. An IPR is directed by the Undersecretary/Administrator and is normally conducted by teams assembled and funded by the PD. Results of the review and the corrective action plan prepared by the PD will be included in the Critical Decision package.

- *Independent Reviews.* The DOE recognizes that independent reviews are valuable in assessing the status and health of its projects. An independent review may be a science-based or engineering-oriented peer review, a review of the project management structure and interrelationships between organizational components, a review targeted to a specific issue such as cost or budget, a review covering safety, or a combination. Also, for efficiency, independent reviews may be combined as appropriate.
- *Internal Independent Project Reviews (IPRs).* An IPR is conducted by reviewers within the Department. The Deputy Secretary as SAE, the Undersecretary/Administrator, the Operations/Field Office Manager, Program Manager, or Federal project director, may authorize or conduct IPRs as required. The Undersecretary/Administrator or Operations/Field Office Manager, as part of the project management oversight process, may request IPRs through the project management support offices for any project, including Major System projects. Irrespective of the organizational level initiating an IPR, the Undersecretary/Administrator or Operations/Field Office Manager notifies OMBE of its intent to conduct such a review and OMBE is included as an invited observer for all planned reviews. OMBE coordinates the extent of participation on a case-by-case basis with the appropriate organization. Members of an IPR team are not drawn from the responsible Program Office within a Undersecretary/Administrator organization, related contractors from the project office, or a related funding program. Reviews may use contractor, consultants, university, industry, or other expertise from organizations not directly funded by or related to the program/project office being reviewed.

4.0 GUIDANCE FOR CRITICAL DECISION-0

Critical Decision-0 involves the formal conceptualization of a recommended or proposed project and the preparation of a Mission Need Statement (MNS). This initiates the pre-project planning activities identifying the principle requirements to be met or the products to be delivered for the project's strategic goals and objectives. The sponsoring organization forwards this documentation to the DOE Program Office/DOE Field Office for review and validation.

The Undersecretary/Administrator organization prepares the MNS (in coordination with the appropriate Field Office, laboratory, or contractor) and initiates pre-acquisition planning

activities. Also, a mission validation IPR shall be performed through OMBE on all projects having a TPC greater than \$5M. These activities lead to a Critical Decision-0 determination.

Elements to consider for Critical Decision-0 documentation include:

- A brief description of the proposed project, explaining integrated mission need in light of technical or other influences
- A program requirements document that identifies what the project must achieve
- Identification of work element priorities and constraints, and a discussion of the pre-project planning process
- Ensuring that risks associated with the project have been identified, analyzed, and determined to be either avoidable or manageable. This is an essential part of project pre-planning.
- Special studies, a technical data summary, a feasibility evaluation, characterization studies, and legal reviews (if required) to assure that the base document establishes a consistent and unambiguous understanding of the mission requirements and responsibilities
- Identification of long-lead or special procurements
- Budget forecasts, financial justification, and strategies explaining any tradeoff in current scope, cost, or schedule based on very preliminary information
- Identification of project coordination interfaces up to the point of Critical Decision-0 approval and for the transition to Critical Decision-1
- Identification of Project Engineering and Design (PED) funds
- Identification of potential acquisition strategies
- Preparation of a plan of action for the next phase of the project; i.e., Critical Decision-0 to Critical Decision-1.

4.1 Preliminary Project Planning

Acquisition development is a process that begins with pre-acquisition planning and risks identification and analysis.

- *Preacquisition Planning.* Preacquisition planning focuses on the project's strategic goals and objectives. Before a project is formally initiated, a formal consensus on project objectives, functional requirements, priorities, constraints, and the need for an AS should be documented by the integrated project team (IPT) as a pre-acquisition planning process output. The IPT is composed of each organizational and customer element that affects and contributes to the project.
- *Risk Identification and Analysis.* An essential part of project planning is to ensure the risks associated with the project have been identified, analyzed, and determined to be either

eliminated, mitigated, or manageable. Risk identification and analyses should be continued through succeeding phases, including preparation of the AS and the Project Execution Plan (PEP). Each identified risk is monitored at future Critical Decision requests and review points to ensure it has been satisfactorily addressed, eliminated, mitigated, or managed.

4.2 Critical Decision-0 Key Milestones/Activities

- Mission Need Statement (MNS)
- Program Requirements Document (PRD)
- Establish Project Team (IPT)
- Preliminary Environmental Strategy
- Technical Organizational Interfaces
- Integration with other projects and activities
- Mission need independent project review if required
- Preliminary Acquisition Strategy
- Preliminary Project data sheet for design with special procurement disclosure
- Minimum technical and functional requirements
- Preacquisition development plan
- TPC and schedule ranges
- Technology development issues.

5.0 GUIDANCE FOR CRITICAL DECISION-1 PACKAGE

Critical Decision-1 reaffirms the mission need for a proposed project, establishes the AS and forms the basis for the request to proceed with the preliminary design. It also establishes the preliminary cost estimate and schedule ranges for the project. A Critical Decision-1 package will normally consist of a Critical Decision-1 document and a cover letter of transmittal from the proposing PD requesting action (approval) from the DOE.

Once Critical Decision-0 is obtained, the AE directs the development of the conceptual design, which results in a Conceptual Design Report, AS, Preliminary Hazard Analysis, draft PEP, a design funding estimate, and preliminary baseline ranges (cost, schedule) for the remainder of the project. These documents are submitted for SAE/AE approval along with an Undersecretary/Administration-validated Project Data Sheet for Design. The Undersecretary/Administrator establishes a PED funding pool for projects having a TPC greater than \$5M. These activities lead to a Critical Decision-1 (Approve Alternative Selection

and Cost Range) determination. Where long-lead procurement is required, a phased Critical Decision-3 may be requested subject to prior budget approval and funding availability.

Elements of the Critical Decision-1 document include the Conceptual Design Report (CDR), Safety Documentation, Risk Management Assessment, and AS. Other elements to consider in the development of this documentation are:

- A brief description of the proposed mission need that provides a summary statement of the program associated with the proposed project, the linkage with DOE strategic and program plans, and the program conditions and drivers that require capital expenditure/capital acquisition. The project's products/deliverables are also described.
- The proposed DOE program sponsor who identifies the DOE Program Office that will provide budget and management support for the project during execution and during operation.
- A draft PEP. The PEP is the primary agreement on project planning and objectives between the Headquarters Program Office and the Field. Roles and responsibilities are established and the manner of managing overall project execution is defined.
- Preliminary technical functional requirements that describe the physical requirements needed to provide the programmatic capability described above. These are based on a preliminary architectural/engineering program/study that includes end user input and preliminary site criteria identification.
- Identification and description of high-level alternatives explored/analyzed during the conceptual design phase of the project, presented in a CDR.
- A preliminary (baseline range) schedule providing a high-level list of project activities, from the pre-acquisition phase through the start of operations, presented graphically, and showing Critical Decision milestones and schedule risk-based allowances. The schedule is linked to the project work breakdown structure.
- A baseline range estimate for TPC including a high-level, conceptual estimate incorporating the CDR and other project costs to be funded by the sponsoring program, linked to the project work breakdown structure, and including appropriate risk allowances.
- A cost estimate basis/methodology that briefly describes the basis for the estimate, the risk-based allowance rationale, the assumptions for equipment and other principal components of the TPC (e.g., historical figures adjusted for specifics of the project, contingency level based on perceived technical risk, equipment based on today's costs escalated for inflation, etc.).
- A risk assessment that provides a statement identifying probable areas of cost, schedule, or technical risk associated with the proposed project.

- A finalized environmental National Environmental Policy Act (NEPA) strategy that presents the anticipated level of NEPA documentation for the project and the plan for completing it in support of the project schedule. Identification of any environmental issues that might impact the project.
- A Preliminary Hazards Analysis Report.
- Preliminary safety strategy that discusses the anticipated level of safety documentation for the project, the preliminary plan for completing safety documentation in support of the proposed project schedule, and identification of safety issues that might impact the project.
- A safeguards and security study that addresses those activities to the degree they are technical objectives and functional requirements that affect the design basis.
- Relationships or integration with other programs, projects, DOE sites, and related agencies, facilities, or utilities that have a programmatic and/or functional relationship to the proposed project. Confirmation that the project is in the related Agency's plan or other DOE planning documents.
- A scope of work for design.
- A value management plan.

The sponsoring agency or department includes in the cover transmittal letter any expectation or requirement for specific turnaround time on a decision.

Key to the Critical Decision-1 package is the development of a comprehensive AS and execution strategy.

5.1 Critical Decision-1 Key Milestones/Activities

- Define project objectives
- Establish existing facilities baselines
- Establish initial budgets
- Review design alternatives
- Identify project codes, standards, and procedures
- Evaluate alternative site locations
- Establish technical and functional requirements
- Establish project baseline ranges
- Perform safety and operability reviews
- Verify performance criteria
- Perform life cycle cost analysis

- Prepare project Risk Management Plan
- Identify and control interfaces
- Prepare CDR
- Prepare AS
- Source Selection Plan or Business Clearances
- Project Data Sheet for Design (Undersecretary/Administrator validated)
- Preliminary Hazard Analysis Report
- Preliminary PEP
- Design/funding estimate
- Preliminary baseline ranges (cost, schedule)
- Undersecretary/Administrator develops PED funding pool
- Project expectations summary
- Statements of Work for anticipated contractors
- Systems Engineering Management Plan
- Plan of action for those activities to be performed before Critical Decision-1.

6.0 GUIDANCE FOR CRITICAL DECISION-2

Critical Decision-2 marks the approval of the project's performance baseline and is required for inclusion of project funding in the DOE Congressional Budget Request. Critical Decision-2 also authorizes the design phase to proceed as soon as funds become available. A Critical Decision-2 approval will normally include a review of the Critical Decision-1 decision, the approved PEP, and the Preliminary Design Report; the draft Preliminary Safety Analysis Report; the completion of a performance baseline validation External Independent Review; cost report and perhaps an independent cost estimate appraising the contractor's project management system; and submittal of the Project Data Sheet for Construction.

Once Critical Decision-1 is obtained, the project preliminary performance baseline range is controlled through the baseline change control process. PED funds (which are managed by the Undersecretary/Administrator, including Program Directors) become available for use for preliminary design and final design, baseline development, and/or a statement of work/request for proposal for a design/build contract. For long-lead procurement, a separate budget request for capital funds may be submitted prior to Critical Decision-2 for a phased Critical Decision-3 determination.

Projects prepare a draft Preliminary Safety Analysis Report and NEPA documentation, as appropriate, finalize the PEP and performance baseline, and reflect the results in the Project Data Schedule for Construction. Also, a baseline performance EIR is performed through OMBE on all projects having a TPC greater than \$5M.

Completion of these activities leads to a Critical Decision-2 (Approve Performance Baseline) determination.

6.1 Performance Baseline Validation External Independent Review

This is a detailed review of the entire project, including an ICR and if required an ICE, prior to Critical Decision-2. It verifies the mission need; validates the proposed technical, cost, and schedule baselines; and assesses the overall status of the project management and control system.

6.2 Critical Decision-2 Key Milestones/Activities

- Review and verify IPT organization and skills and finalize the Team Execution Plan
- Assess the Earned Value Management System
- Initiate performance reporting
- Prepare project data sheet for construction
- Perform a Preliminary Design Review
- Implement trending program
- Develop project specifications, drawings, procurement packages, and construction packages
- Finalize permit requirements
- Approve safety documents (e.g., PSAR)
- Budget and Congressional authorization and appropriations enacted
- Update PEP
- Commit critical equipment, requisitions
- Perform process hazards review
- Project site selection
- Update scope, cost, and schedule (performance) baselines
- Execution Readiness Independent Review
- Mission need verification
- Detailed schedules and cost estimates

- Authority/Responsibility matrix
- Performance metrics
- Staffing plans
- Technical risk analysis report
- Technology development output
- Assess Value Management/Engineering status
- Complete design model
- Conduct ICR/ICE and IPR
- Prepare Critical Decision-2 package
- Conduct technical innovations evaluation.

7.0 GUIDANCE FOR CRITICAL DECISION-3

Approval of Critical Decision-3 is the Authorization to Implement or the approval to start construction or begin execution of the project. It authorizes the award of contracts as soon as funds become available. A Critical Decision-3 approval will normally require a design review and subsequent approval of the final design and an execution external readiness independent review. Critical Decision-3 is requested with a letter from the PD to the DOE AE, who has the authority to approve a Critical Decision-3 and formally notify the program sponsor and PD.

Once Critical Decision-2 is obtained, the project can be included in the DOE budget submission process. The Final Design continues with PED funds through completion of the design. If requested and approved, long-lead procurement funds are committed. The final Safety Analysis Report is submitted for approval and the DOE safety evaluation report issued, as appropriate. An Execution Readiness External Independent Review is performed through OMBE on Major System projects and, through the appropriate AE, for non-Major System projects having a TPC greater than \$5M. The PEP and performance baseline is updated, if required. These activities lead to a Critical Decision-3 (Approve Start of Construction) determination.

7.1 Final Design Review

The final design review is a technical review of the standard and special specifications, drawings, and related reports (e.g., energy conservation report). The purpose of the review is to ensure that the design complies with user and agency requirements and accepted standards. The process includes:

- Assessing technical adequacy and conformance with agency and customer requirements, codes, standards, and other criteria such as budgetary constraints

- Identifying consistent problems, errors, and lessons learned to pass on to future projects
- Managing reviewer participation and providing a process for review comment response and resolution.

The PD coordinates the review by providing the design documents to qualified participants in the fields of Environment, Safety, and Health; and all applicable disciplines of engineering, architecture, controls, communications, security, operations, maintenance, fire protection, energy conservation, and other areas as necessary. Other reviewers include any technical experts the DOE deems appropriate, along with the user representatives.

The PD documents all review comments and ensures they are resolved by incorporating changes or documenting the reason for not doing so.

7.2 Final Design Package

The final design package includes final drawings, specifications, a detailed cost estimate, detailed schedule calculations and design analyses, and a final energy conservation report. The package should be in a form ready to issue for bid or a request for quotation.

A Construction Readiness EIR is performed by OECM on Major System projects and an IPR on non-Major System projects to evaluate the readiness of the project to proceed to the procurement/construction phase. Reviewers outside the Department conduct an EIR. OMBE selects an appropriate contracting agency to contract for such reviews, excluding the M&O/M&I contractors. The Undersecretary/Administrator Project Management Support Office provides coordination for the EIR contractor on site, resolves issues of schedule and access while on site, gathers and provides requested and proffered information to the reviewer, and responds to reviewers on errors of fact or needed clarification.

The Deputy Secretary, Undersecretary/Administrator, or a program or project organization within the Undersecretary/Administrator may request an EIR. EIRs also may be initiated in response to an external requirement.

An independent cost review (ICR) may also be performed at this time and may include an ICE to verify the detailed cost estimate included in the final design. An independent firm or agency conducts the review so that the two estimates can be compared and determined to be reasonable. If the cost estimates are substantially different, the two estimates are compared to identify omissions, duplications, etc.

7.3 Critical Decision-3 Key Milestones/Activities

- Finalize field support plan
- Review Safety Action Plan
- Perform final design review

- Prepare definitive cost estimate
- Prepare detailed resource-loaded schedule with measurable milestones
- Prepare equipment and material requisitions
- Obtain approval to initiate construction activities
- Complete procurements of materials and equipment
- Perform procurements and construction
- Start systems completion
- Work off punch list items
- Develop Turnover and Startup Plan
- Prepare Operating and Maintenance Manuals
- Execution Readiness External Independent Review.

7.4 Critical Decision-3 Request

Once the final design review is complete, the design documents are updated, and the Execution Readiness Independent Review is completed, the PD sends a Critical Decision-3 Request Letter to the SAE/AE requesting approval for Critical Decision-3. The letter includes the approval deadline necessary to maintain the project schedule.

8.0 GUIDANCE FOR CRITICAL DECISION-4

Critical Decision-4 marks the transition of project deliverables to the user for operation. Prior to obtaining Critical Decision-4 approval, the contractor normally prepares a letter of intent to occupy or begin operation with an occupancy checklist and a readiness assessment or review from the occupant. A Final Cost Report is required for closeout. Final Cost Reports vary by site and are not prepared until all contracts (including claims) and work orders are closed and all costs collected. The Final Cost Report may or may not be completed prior to obtaining approval of Critical Decision-4.

Once Critical Decision-3 is obtained, the project executes and completes all project activities, including construction, where required; completes transition to operations planning activities, including DOE approval of Environmental, Safety and Health documentation; performs/supports an operational readiness review; and, prepares an acceptance report. These activities lead to a Critical Decision-4 (Approve Start of Operations or Project Closeout) determination.

8.1 Letter of Intent to Occupy and Occupancy Checklist

Once construction is complete, the PD uses a checklist to ensure the facility or action is safe and functional before occupancy. The goal of the checklist is to ensure that at least the minimum building, life, safety, and security requirements are met prior to delivering the product to the user, and to make an informed decision on when to occupy. The items on the checklist may be prioritized into those items that are mandatory before occupancy, should be completed prior to commencing operations, and can be completed after the building is occupied and operational. Each project establishes the checklist according to the items that are applicable to the specific site and to the specific facility. The PD and the responsible DOE Field Office may allow occupancy based upon a partially completed checklist. This checklist and its content are not mandatory, and DOE Sites may vary in how they establish final acceptance of a facility for beneficial occupancy.

The PD sends a letter of intent to occupy with the fully completed checklist to the Field Office for approval and forwards it to the program sponsor and Program Manager as part of the Critical Decision-4 package.

8.2 Readiness Assessment/Review

Early in the project, as part of readiness activities, a level of operational readiness is determined so the user knows what type of assessment or report is required prior to operation. The facility user provides the appropriate level of operational readiness review prior to occupying or operating the facility. The readiness approach may include a phased approach to readiness so that a staged occupancy is possible. Approval authority for readiness reviews varies depending upon the type and level of hazards involved.

8.3 Critical Decision-4 Key Milestones/Activities

- Startup testing
- Prepare intent to occupy and occupancy checklist
- Initiate document and project closeout process
- Completion of procurement and construction
- Perform systems completion testing
- Verify performance criteria
- Prepare lessons learned report
- Perform readiness self-assessment
- Approve for acceptance
- Prepare and complete as-built drawings, if required

- Verify readiness to initiate operations
- Support DOE's ORR activities, if applicable
- Prepare project completion report
- Complete financial closeout
- Hold satisfaction meeting.

8.4 Critical Decision-4 Request for Completion/Acceptance

The PD prepares a letter requesting Critical Decision-4 and submits it to the Field Office for approval. The Field Office forwards the approved Critical Decision-4 request to the program sponsor and the PD.