EIR Summary Assessment of [PROJECT] Performance Baseline

EIR Element	SC Review Team Assessment	Comment
1. Basis of Scope **LEAD:** **SC-**	Satisfactory Satisfactory with Comment Unsatisfactory	Assess whether the Work Breakdown Structure (WBS) and WBS dictionary incorporate all project work scope, and that the defined work scope and system requirements are derived from and consistent with the approved Mission Need. Assess whether the Resource Loaded Schedule (RLS) is consistent with the WBS for the project work scope. Assess if the WBS represents a reasonable breakdown of the project work scope and if it is effective for internal management control and reporting. Identify and assess the basis for and reasonableness of key programmatic, economic, and project scope assumptions as related to the quality and completeness of the WBS, technical and design requirements, and risk management planning and contingency requirements. Identify all underlying technical assumptions and assess whether they are sound and/or appropriately addressed within the Risk Management Plan and adequately supported with funded contingency, particularly for new technologies that have never been developed and/or prototyped within the proposed environment. Assess whether it is reasonable to divide the work scope presented into more than one discrete project. If applicable, identify the basis for managing such discrete projects in an integrated program. Confirm that a Program Requirements Document (PRD) exists and that project planning reflects the PRD. Assess whether "design-to" functions are complete and have a sound technical basis (The EIR team should include safety and external requirements, such as permits, licenses, and regulatory approvals, in their assessment.) Assess whether the requirements have been defined well enough to establish a firm performance baseline. Assess whether the CD-4 (project completion) activities and requirements and project key performance parameters (KPP) are clearly defined in the PRD. Assess whether these activities and requirements are sufficiently defined, under change control and not expected to change, quantified, measurable, and can reasonably be determined as complete. Identify the CD-4 requirements/ activities/KPPs in a separate table in the EIR report, including summary analysis results. Assess adequacy and completeness of standards and requirements to include DOE Directives (e.g., Policies, Orders, Standards, and Guides to include DOE O 413.3A, DOE-STD-1189, etc.) identified as being applicable and appropriate to the project either due to the nature of the project or contract requirements. Identify any areas of non compliance with the identified standards and requirements. **Project Response**: **Committee Response**:
2. Basis of Cost **LEAD:** **SC-**		For selected WBS elements (typically, those constituting significant cost and/or risk), summarize the detailed basis for the cost estimate. Assess the method of estimation and the strengths/weaknesses of the estimates for each WBS element reviewed. Identify and assess the basis for and reasonableness of key programmatic, economic and project cost assumptions as related to the quality of estimates for each WBS element, and risk management planning and contingency requirements. Perform Independent Cost Review (ICR) or Independent Cost Estimate (ICE) as appropriate or requested. For MSA projects, the ICR or ICE required by DOE O 413.3A will be coordinated with the Office of Cost Analysis (CF-70). Assess the amount of and basis for escalation. Assess reasonableness of resource loading, including what resources are loaded. Identify whether the estimated costs for the project are reasonable based on professional expertise, parametric estimates, historical data, etc. Verify that the cost value of schedule contingency is included in the TPC. Provide a completed project cost profile table Excel worksheet will be provided as part of the EIR SOW). Based on the project cost profile table, develop summary baseline cost tables of the proposed costs for the EIR report.

3. Basis of Schedule **LEAD:** **SC-**		For the selected WBS elements, summarize the detailed basis of schedule estimate. Assess the method of estimation and the strengths/weaknesses of estimates. Identify/assess the basis for and reasonableness of key programmatic, economic and project schedule assumptions as related to the quality of estimates for each WBS element, and risk management planning and contingency requirements. Assess reasonableness of resource loading, including what resources are loaded. Determine if schedule contingency is derived quantitatively and if the calculated duration is placed between the end of the last project critical path activity and the "Submit Request for CD-4" milestone. Identify whether the estimated schedule for the project is reasonable based on professional expertise, parametric estimates, historical data, etc. Include CD milestone data on the project cost profile table referenced above and include summary baseline schedule tables of the proposed 15 milestones (i.e., CD dates and other significant or critical project dates) in the EIR report.
4. Funding Profile and Budget **LEAD:** **SC-**		Review and provide the basis for the Funding Profile (e.g., latest Project Data Sheet). Compare the annual budget with the cost requirements, and provide an assessment of whether the costs and budget are reasonably linked and can withstand normal budget turbulence during fiscal year transition periods (e.g., continuing resolutions, new start restrictions, etc.) Identify any significant disconnects between the performance baseline requirements and budget/out-year funding. Determine the reasonableness of the Budget Authority versus Budget Obligation profiles and assess the affordability of the project within the Program's budget profile. Include budget/funding information in the project cost profile table referenced above.
5. Critical Path **LEAD:** **SC-**		Assess whether the Critical Path is reasonably defined. Assess whether the Critical Path reflects an integrated schedule and schedule durations are reasonable. Provide the duration between the Critical Path completion date and the Project Completion date (CD-4). Assess whether the schedule contingency (float) is reasonable for this type of project. Determine if there is a clearly defined critical path leading to submission of the CD-4 request. Assess the critical path schedule for level of effort activities. Verify that "near critical paths" are clearly identified.
6. Risk and Contingency Management **LEAD:** **SC-**		Describe the approach used to identify project risks and assess the adequacy of this approach. Assess adequacy and completeness of both DOE and contractor risk management planning including the method(s) used to identify risks, and whether a reasonably complete list of potential risks was developed for analysis. List key risks and risk rankings in a table, and provide the EIR team's assessment of the risk. Assess whether all appropriate risk handling and mitigation actions, including accepted risks and residual risks, have been incorporated into the performance baseline. Identify/assess cost and schedule contingency (contractor/DOE). Provide assessment of whether the analysis for and basis of contingency is reasonable for this type of project and its associated risks. Assess adequacy of the qualitative analysis and rating (high, medium, or low) of current risks for probability of occurrence and for consequence of occurrence. Evaluate the extent and adequacy of quantitative risk analysis. Evaluate whether the risk watch list and risk assessment sheets appear to be complete. Evaluate the adequacy of the management control process for risk status/updating.

7. Hazards Analysis/Safety **LEAD:** **SC-**		Assess whether the hazards identified and the accident scenarios represent a reasonably comprehensive list. Determine if controls are capable of mitigating defined accidents and if confinement/containment of radioactive material is addressed. Assess expectations for facility level systems, structures, and components (SSC). Determine whether SSCs for worker and public safety, and safety class/ safety significant (SC/SS) equipment and components, have been incorporated into the design and proposed performance baseline. Review the Integrated Safety Management System and assess whether safety has been appropriately addressed throughout the lifecycle of the project. Assess the relevant change control process relative to required documentation and necessary SSCs. Assess the Hazards Analysis (HA) process, including the use of internal and external safety reviews. As applicable, review any Defense Nuclear Facilities Safety Board (DNFSB) and/or Nuclear Regulatory Commission (NRC) interface and discuss with the local representatives the status of their involvement. Assess whether DNFSB/ NRC issues have been reasonably considered and addressed. If not, identify the outstanding issues, assess when they will be resolved and determine what risks they pose. Assess status of and resolution of corrective actions by the contractor, including incorporation of any additional identified safety requirements. Identify if the HA incorporates expectations from the Safety Design Strategy (SDS). Review the Preliminary Safety Design Report (PSDR), SDS, and Fire Hazards Analysis (FHA). Assess whether these documents are complementary, reflect continuously refined analyses based on evolving design and safety integration activities during preliminary design, address all required elements in accord with DOE-STD-1189, and have been evaluated by appropriate individuals and organizations. Assess whether the SDS addresses the following three main attributes of safety integration as the project progresses through project planning and execution. Ensure Preliminary Safety Validation Report is completed; Assess whether it adequately addresses the required review of the PSDR or PDSA.
8. Basis of Design **LEAD:** **SC-**		Review the basis of design and assess the reasonableness of the design requirements and output for each function/ operation. Summarize the assessment by providing a description of the unit operation, the design parameters, the basis of the design parameters and an assessment of whether the design basis is reasonable. Ensure safety requirements resulting from review of safety documents (e.g., PSDR and PSVR) are incorporated into the design and baseline. Review surrogate tests, as applicable, and provide an assessment of whether surrogate composition reasonably represents the full range of feed streams and whether the design basis incorporates results of the tests. Review process and material balance flow sheets to assess the reasonableness of the input and output parameters for each unit operation, and adequacy to support environmental permitting, licensing and other regulatory decisions. Ensure that design addresses results of reliability, availability, maintainability, and inspectability (RAMI) analyses.
9. Preliminary Design Review and Comment Disposition **LEAD:** **SC-**		Assess whether the design has progressed far enough (design maturity) to support the proposed performance baseline. Confirm that a design review has been performed by a qualified team, to ensure the adequacy of the preliminary design including adequacy of the drawings and specifications, and assess whether they are consistent with system functions, requirements, and KPPs. Review disciplines and experience of the project design review team. Assess whether the design review team had appropriate experience and technical disciplines on the team. Review the design review comments and responses. Based on a reasonable sample, assess whether comments were incorporated into the design, and whether costs/schedule associated with design changes were incorporated into the performance baseline.

10. Start-Up Planning and Operations Readiness **LEAD:** **SC-**		Ensure the start-up test plan identifies how tests will be determined to be successful, and that associated equipment and instrumentation is included in the preliminary design. Review the startup and operational readiness test requirements. Determine any exceptions taken by potential construction contractor or project consultants in meeting startup test specifications. Assess whether cost, time and resource estimates are defensible to accomplish the required startup activities and have been included in the performance baseline. Assess whether there is sufficient cost and schedule contingency for test and equipment failure during start-up testing. Assess whether the start-up plan has been fully integrated with existing functional organizations including security. Assess whether results of tests (e.g., equipment tests, process tests, surrogate tests, etc.) have been factored into startup and operational readiness.
11. Project Controls/Earned Value Management System **LEAD:** **SC-**		. Assess the status of the contractor's project control system to include the EVMS relative to the requirements of the contract and DOE O 413.3A. Assess whether project control systems and reports are being used to report project performance, whether the data is being analyzed by the Federal IPT and contractor management, and that management action is taking place as an outcome of the analysis function. Evaluate the control process whereby projects incorporate formal changes, conduct internal re-planning, and adjust present and future information to accommodate changes. Determine if changes, including acceptable retroactive changes (correcting errors, routine accounting adjustments, or improving accuracy of the performance measurement data), are documented, justified, and explained. If the contractor has a certified EVMS, assess whether a surveillance system is in place to maintain the system for continued compliance with the ANSI Standard (EIA-748). If the project contractor does not have a certified EVMS, assess the likelihood of the EVMS being certified by CD-2, and no later than CD-3.Determine if there is an EVMS certification review scheduled to occur within sufficient time to permit EVMS certification, and assess the status of efforts and management focus on ensuring the EVMS is ready for certification review. If a certification review is in process, assess status of efforts and management focus on resolving open issues to obtain certification within sufficient time preceding the baseline CDs.
12. Quality Control/Assurance **LEAD:** **SC-**		. Assess the applicability, completeness, adequacy, and flow-down of the Project Quality Assurance Program, including software quality assurance (SQA), based on DOE Order 414.1C and 10 CFR 830 Subpart A. Review the record of QA audits performed on the project and the disposition of the audit findings. Determine if the QA/QC Plan and implementing procedures address personnel training and qualifications, quality improvement programs, document and record management, work processes, receipt inspection, commercial grade dedication, management and independent assessments, acceptance test planning and implementation, and the process for dispositioning field changes. Assure that the contractor QA/QC Plan addressing the scope and content for the CD-2 phase of the project has been reviewed and approved by the appropriate DOE organization. Determine if there are QA/QC requirements for construction planning and work processes. Assess whether QA requirements (NQA-1 if applicable) have been appropriately incorporated into the "Design-to" functions, and costs, time and resources adequately estimated and included in the baseline.
13. Value Management/ Engineering **LEAD:** **SC-**		. Assess the applicability of Value Management/Engineering and if a Value Management/Engineering analysis has been performed with results being incorporated into the proposed performance baseline. Provide an assessment of the Value Management/Engineering process for this project. Include whether the VM team had a reasonable skill mix and experience background. Assess whether life cycle cost analysis was reasonably performed as part of the trade-off studies and various alternatives reviewed.

14. Project Execution **LEAD:** **SC-**		Review PEP and determine if it establishes a pan for successful execution of the project, if the project is being managed and executed in accordance with the PEP, and if it is consistent with other project documents. Determine if the PEP has been reviewed by appropriate site and Headquarters' organizations, and if all comments have been resolved. Determine if there is a program for integrated regulatory oversight and assess if applicable Federal, state, and local government permits, licenses, and regulatory approvals, including strategies and requirements necessary to construct and operate a facility or to initiate and perform project activities are identified and will be obtained when needed to continue project execution on schedule or milestone dates established. Identify if schedule for receipt of authorization from regulators is realistic and based on experience, and that requirements and milestone dates are updated as necessary and kept current. Assess key inter-site and intra-site coordination issues and determine if they are identified, addressed and resolved or appropriate plans in place to accomplish resolution. Determine if all stakeholders are identified, and assess if their relationship to the project is evaluated, project impacts on them and their interests identified, and required interfaces with external organizations or authorities addressed. Determine if an appropriate Public Participation Plan is in place based on available stakeholder information and size and scope of project, and if specific stakeholder group issues are addressed relative to project goals and objectives, technical issues, project risk, and environmental strategies. Identify applicable GAO, IG, and other oversight body reports and determine if issues or concerns have been resolved or otherwise adequately addressed. Similarly, identify and assess relevant Congressional language in authorization and appropriation bills.
15. Acquisition Strategy/Plan **LEAD:** **SC-**		Review the Acquisition Strategy/Plan to determine if a strategy/plan for successful execution of the project is established, if the project is being executed in accordance with the strategy/plan, and it is consistent with other project documentation. Assess whether there are adequate contractor incentives (and disincentives) to enhance project execution. Evaluate any changes from previously approved Acquisition Strategies/Plans and assess whether the current Strategy/Plan still represents best value to the Government.
16. Integrated Project Team **LEAD:** **SC-**		Review Federal and contractor IPT Charters and determine if all appropriate disciplines are included. Confirm that the FPD is certified at the appropriate level to manage this project. Assess both Federal and contractor project management staffing in terms of number of personnel, skill set, effectiveness, quality, organizational structure, division of roles/responsibilities, and processes for assigning work and measuring performance. (Differentiate between full and parttime IPT members.) Assess whether the Federal and contractor project teams can successfully execute the project. Ensure IPT membership includes appropriate safety experts. Identify if the Federal IPT nuclear safety expert is validated as qualified by the Chief of Nuclear Safety/Chief of Defense Nuclear Safety in accord with DOE O 413.3A. Assess the span of control (in terms of not only supervisory responsibility but also project issues and management of dollars) of key project 21 management personnel, including the FPD, to determine whether they can successfully perform their duties. Identify any deficiencies in the Federal or contractor IPTs that could hinder successful execution of the project.
17. Sustainable Design **LEAD:** **SC-**		Assess whether the project team has identified sustainable design features, in accordance with the Energy Policy Act of 2005, Executive Order 13423, and DOE O 450.1 chg 3, and that these features have been properly accounted for within the proposed performance baseline. Assess if project is eligible for LEED certification.

18. Safeguards and Security **LEAD:** **SC-**		Assess whether a Preliminary Security Vulnerability Assessment Report as defined in DOE M 470.4-1 has been updated as required by DOE O 413.3A, Assess the completeness and accuracy of the applicable safeguards and security requirements, the methods selected to satisfy those requirements, and any potential risk acceptance issues applied to the project and their incorporation into the project, Assess adequacy of incorporation of Design Basis Threat requirements into the baseline, Review the proposed performance baseline to ensure that cost, schedule, and integration aspects of safeguards and security are appropriately addressed, Assess whether all feasible risk mitigation has been identified and that the safeguards and security concerns for which explicit line management risk acceptance will be required are appropriately supported.
19. New Technology and Technology Readiness **LEAD:** **SC-**		Review all technology decisions that have been made to date and determine whether the project is incorporating new technologies or existing technologies in new applications, Assess the plans for and results of tests of new technologies or new applications of existing technology. Determine if the scale of the test is adequate to mitigate risks and/or safety concerns, Assess whether the identified technologies are at a sufficient level of maturity to be incorporated into the design and baseline. To the extent possible, provide an analysis of the Technology Readiness Level (TRL) for the applicable technologies identified [Government Accountability Office Report 07-336 Major Construction Projects Need a Consistent Approach for Assessing Technology Readiness to Help Avoid Cost Increases and Delays, March 2007] Assess whether the proposed performance baseline adequately provides for sufficient cost and schedule to accomplish required research, development, testing, and implementation of these new technologies or new applications of existing technologies, Determine if the Risk Management Plan accounts for risks associated with new technologies or new applications of existing technologies, and that adequate contingency has been included.
20. Contract Management **LEAD:** **SC-**		Assess the current contract including cost, schedule, and work scope against the proposed performance baseline and identify any potential contract and project integration issues. Determine whether the terms of the current contract support the project as currently planned and identify any gaps between the current contract and proposed performance baseline. Assess effectiveness of integrated change control and use of change control boards by both Federal and contractor organizations, Likewise, assess any planned contract modifications and requests for equitable adjustments relative to the proposed performance baseline, Evaluate the status of contract management, and if applicable, plans and schedule to bring the contract up to date, Assess project plans to self-perform construction and operations readiness versus subcontracting that work, Assess draft documents to be provided to the services (e.g., construction) and product (e.g., purchased materials and equipment) subcontractors including submittal of documents by the subcontractors required before notice to proceed (e.g., design requirements, EVMS, and systems testing and turnover requirements).
21. Documentation and Incorporation of Lessons Learned **LEAD:** **SC-**		Assess whether the project team is documenting and sharing lessons learned from their project internally and externally, Assess whether the project team is reviewing and incorporating lessons learned from this and other projects.