



TITLE: Establishment of a National Nuclear Security Administration (NNSA) Independent Project Review (IPR) Policy

- I. **OBJECTIVE:** To establish a National Nuclear Security Administration (NNSA) policy for conducting Independent Project Reviews (IPRs) and/or Technical Independent Project Reviews (T-IPRs) on projects being executed by the NNSA.
- II. **RESPONSIBILITY:** NA-50 is assigned the responsibility to serve as the independent assessor for project management, responsible for leading, managing and performing all Independent Project Reviews within the NNSA. The principal customers of the Reviews are to be the Administrator, Principal Deputy, and Deputy and Associate Administrators. The Reviews will advise them in their project management decisions.
- III. **APPLICABILITY:** This policy pertains to all projects (except General Plant Projects and Capital Equipment Projects) constructed for NNSA or managed by NNSA personnel on behalf of other government agencies with an estimated TPC \geq \$20 million. These projects include: Line Item (Capital) projects, Operation Expense funded (Op-Ex) projects, and Work For Others (WFO) projects. Secretarial Officers or their designated Acquisition Executive may invoke this policy for projects with a TPC \leq \$20 million.
- IV. **POLICY:**
 - A. This policy will be applied in conjunction with and will not supersede any requirements established by DOE Order 413.3A. Execution of project activities, including review thresholds and responsibilities, will follow the guidance of DOE O413.3A.
 - B. All IPR/T-IPR teams will be led by personnel from NA-50, Office of Infrastructure and Environment, or their designee. These IPRs will be conducted as peer reviews to provide emphasis on technical approach, engineering design, the management team, project cost, and project schedule.
 - C. IPR/T-IPR will be conducted for each NNSA project per the requirements of DOE O 413.3A and at least annually for those projects with a TPC of \$100 million or greater
- V. **BACKGROUND:** IPRs and T-IPRs provide a method of evaluating the cost, scope, schedule and technical attributes of a project prior to the various Critical Decisions

milestones that occur during project execution. The results of the IPR/T-IPR are a valuable tool utilized by the Acquisition Executives to determine the readiness level of a project prior to proceeding into the subsequent phases. The National Research Council has recognized the value of DOE/NNSA conducting internal, nonadvocate reviews as a means of improving overall project performance.

VI. **EXCLUSIONS:** The Naval Nuclear Propulsion Program and its contractors, where inconsistent with the authority of the Director, Naval Nuclear Propulsion Program, pursuant to Executive Order 12344, as set forth in Public Law (P.L.) 98-525, the Department of Energy National Security and Military Applications of Nuclear energy Authorization Act of 1985, and P.L. 106-65, the National Nuclear Security Administration Act.

Required Independent Project Reviews

Timing:	Type of Review:	Responsible Organization:	Applicability:
Prior to CD-0	Mission Validation IPR *	NA-54	If TPC ≥ \$750 million
	Mission Validation IPR	NA-54	As requested by program or project office if TPC < \$750 million
Prior to CD-1	Preferred Alternative, Cost Range and Technical IPR *	NA-54	High –risk, high-hazard, or Hazard Category 1, 2 or 3 nuclear facilities
	Preferred Alternative and Cost Range IPR **	NA-54	Non high –risk, high-hazard, or Hazard Category 1, 2 or 3 nuclear facilities
Prior to CD-2	Performance Baseline Validation EIR and Independent Cost Estimate or Independent Cost Review *	OECM	If TPC ≥ \$100 million
	Performance Baseline Validation IPR and Independent Cost Estimate or Independent Cost Review *	NA-54	If TPC < \$100 million
Prior to CD-3	Construction or Execution Readiness EIR *	OECM	If TPC ≥ \$750 million
	Construction or Execution Readiness IPR *	NA-54	If TPC < \$750 million, unless waived by the AE
Design and Post CD-3	Annual IPR **	NA-54	All projects with a TPC ≥ \$100 million that have achieved CD-3. Also applies to projects during design (CD-1 through CD-3) if the period between Critical Decisions will exceed 18 months (see Figure 1).
For Cause	Independent Project Review***	NA-54	Generally conducted for any NNSA project experiencing a change of status from “green to yellow” or “yellow to red” per the “Monthly Project Status Report for the Deputy Secretary”.

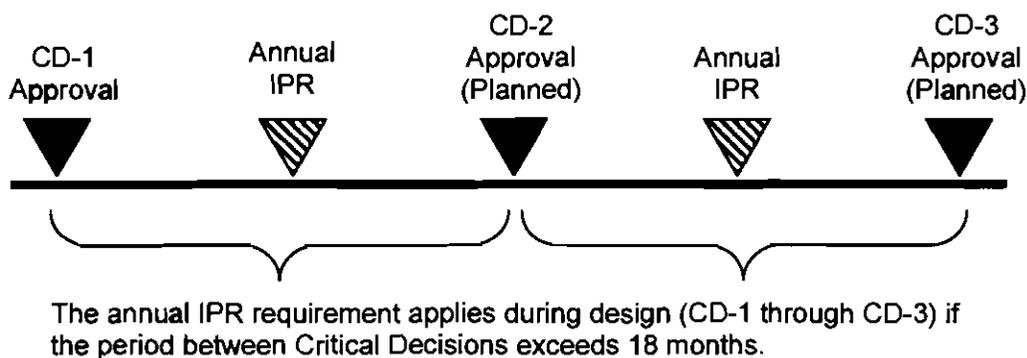
CD = Critical Decision; IPR = Independent Project Review conducted by NA-54; EIR = External Independent Review conducted by OECM; TPC = Total Project Cost; OECM = Office of Engineering and Construction Management; NA-54 = NNSA Office of Project Management and Systems Support.

* Required by DOE O 413.3A, Program and Project Management for the Acquisition of Capital Assets, July 28, 2006

** Requirement established by this NNSA Policy Letter

*** For Cause Independent Project Reviews required as a result of the status change, as depicted in the Monthly Project Status Report, can be delayed up to three (3) months if the status change is the result of events that are anticipated to self-correct (e.g. delay/deferral of procurement cost accruals).

Figure 1: Applicability of the Annual IPR Requirement During



REQUIREMENTS:

- A. For the purpose of this BOP, all Reviews addressed herein are Independent Project Reviews or Technical Independent Project Reviews as identified in DOE Order 413.3A. Annual and For Cause IPRs are a new requirement and are included in the general discussion.
- B. An annual IPR will be conducted for each NNSA project with a TPC >\$100 million that has achieved CD-3. For NNSA projects with a TPC <\$100 million, annual IPRs will be conducted at the discretion of the Acquisition Executive. Annual IPRs will be tailored in consultation with the Federal Project Director, the Acquisition Executive and the associated HQ Program Office to meet the specific needs of the Administrator, Principal Deputy, and Deputy and Associate Administrators. Where the duration between CD-1 to CD-2 or CD-2 to CD-3 exceeds 18 months, as identified in the Project Execution Plan or actual performance, an annual IPR shall be conducted.
- C. Per DOE Order 413.3A, a T-IPR is required prior to CD-1 for all high risk, high hazard and Hazard Category 1, 2, and 3 nuclear facilities; therefore all CD-1 IPRs will be T-IPRs for those projects.
- D. The Office of Infrastructure and Environment, NA-50, leads, manages and performs all Independent Project Reviews within the NNSA. While NA-50 will lead the Reviews, the deputy for every Review will be as assigned by the responsible Deputy or Associate Administrator. Program Office representatives are expected to participate in all reviews. This will ensure fair and balanced assessments, and have the additional benefit of cross-pollination and sharing best practices in project management complex-wide. This assignment will be identified in the IPR Charge memorandum. Federal Personnel from NNSA sites that are planning projects of a similar size or technical complexity may be requested to participate on the Reviews. This also applies to those Federal Subject Matter Experts with

- expertise applicable to the project being reviewed. Such participation is at the discretion of their management.
- E. Each Laboratory/M&O contractor will participate on IPR/T-IPR teams as requested by NA-50, and bear the associated costs.
 - F. IPR/T-IPRs will not be performed, unless specifically requested by the Secretarial Officer, for those Critical Decision milestones where the Office of Engineering and Construction Management (OECM) conducts required reviews, as prescribed by O413.3A.
 - G. Critical Decisions and Baseline Change Proposals will require review and formal comment by NA-50 prior to any ESAAB or ESAAB-Equivalent.
 - H. NA-50 will serve as the coordinator/liaison for all ESAAB meetings pertaining to NNSA projects. NA-50 will coordinate with OECM for those projects requiring an ESAAB, in accordance with DOE Order 413.3A.
 - I. Significant findings from IPRs/T-IPRs must be addressed at the ESAAB/ESAAB-Equivalent meeting.
 - J. IPR/T-IPR scope will include as a minimum, technical approach, the management team, project management systems, cost, schedule, and any specific review areas requested by the Project and/or Program office. In addition, for nuclear projects, the T-IPRs will include a review of nuclear safety and security. The IPR/T-IPR process will be conducted in a non-adversarial manner with the objective of increasing the project's likelihood of success.
 - K. The reviews will be conducted in an open format. Program offices will be invited to attend all review team sessions. For nuclear projects which have DNFSB oversight, the DNFSB staff will be invited to observe the review.
 - L. IPRs/T-IPRs will use the Project Definition Rating Index (PDRI) for each review. The Technology Readiness Level (TRL) tool will be used as appropriate.
 - M. Review reports for T-IPRs will be approved by the Chief, Defense Nuclear Safety, the Associate Administrator for Defense Nuclear Security, and the Associate Administrator for Infrastructure and Environment. All other IPR Reports will be approved by the Director, Office of Project Management and Systems Support.
 - N. At the conclusion of each review, an out brief will be conducted with the Site Manager regarding the review results.
 - O. NA-50 is responsible for conducting post-review briefings to the Administrator, Principal Deputy, and Deputy and Associate Administrators regarding the IPR results.
 - P. The funding for Technical IPRs and large, complex project IPRs will be the responsibility of the Program Office. All other smaller IPRs will be funded by NA-50 as funds permit. Funding issues will be resolved with the Program Office prior to conducting the review.
 - Q. The Charge memorandum is the official request by the Deputy or Associate Administrators or the Acquisition Executive for NA-50 to

conduct an IPR/T-IPR. This Charge memorandum will outline the specific areas that are to be addressed in the review as well as the negotiated dates on which the review is to be conducted. Project reviews previously conducted by the Program/Project office will be considered in scoping/tailoring the IPR/T-IPR.

- R. The Annual IPRs (new requirement) will be tailored reviews to address project execution and/or specific project issues or concerns identified during Quarterly Project Reviews, external reviews (e.g. IG, GAO, etc.) or by the Deputy or Associate Administrators. The tailoring will be accomplished through discussions between NA-50 and the Deputy or Associate Administrators and will be documented in the review Charge memorandum issued to NA-50.
- S. For Cause reviews (new requirement) are IPRs that are initiated due to a significant declination in a project's performance, as depicted on the "Monthly Project Status Report for the Deputy Secretary". These reviews will generally be conducted if the project has not corrected performance issues within three (3) months of the reported declination (i.e. project performance changes from green to yellow or yellow to red).

VII. DEFINITIONS AND GENERAL ROLES:

- A. **Acquisition Executive** – the individual designated by the Secretary of Energy to integrate and unify the management system for a program portfolio of projects, and implement prescribed policies and practices. He/she is the approving authority for a project's Critical Decisions, per DOE O 413.3A.
- B. **Critical Decision** – a formal determination made by the Secretarial Acquisition Executive/Acquisition Executive at a specific point in a project's life cycle that allows the project to proceed to the next phase or Critical Decision.
- C. **Independent Project Review** – an important project management tool that serves to verify the project's mission, organization, development, processes, technical requirements, baselines, progress, etc. Independent Project Reviews are performed by reviewers from within or outside the Program, but having no association with the project being reviewed.
- D. **Project** – A group of related activities that has a defined starting and end point and undertaken to create a unique product or service in support of a program.
- E. **Technical Independent Project Review** – an independent project review conducted prior to obtaining Critical Decision-1, Approve Alternative Selection and Cost Range, for high risk, high hazard, and Hazard Category 1, 2, and 3 nuclear facilities. As a minimum, the focus of this review is to determine that safety documentation is sufficiently conservative and bounding to be relied upon for the next phase of the project

VIII. REFERENCES:

DOE Order 413.3A, Program and Project Management for the Acquisition of Capital Assets, 7-28-2006.

IX. CONTACT: The point of contact for the Independent Project Review Policy is the Associate Administrator for Infrastructure and Environment (NA-50) 202-586-7349.


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