



Changes During Construction

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Background Information:

- Public workshop on Ex-Vessel Severe Accident Changes during Construction (CdC), December 2, 2010, recommendation for combination of qualitative and quantitative criteria for what constitutes a “*substantial increase*” per VIII.B.5.c (1) and (2) of Design Certification rules.
- Public meeting with the New Plant Working Group meeting at NEI headquarters, December 2, 2010, CdC status report, requested industry feedback on proposed Alternative License Amendment process
- Public workshop on Construction Activities Processes, November 30, 2010, NRC staff proposal of an Alternative License Amendment process

Present Status

Problem Statement #1

Determine the activities that can be performed by licensees during construction while the NRC is reviewing requested changes to the licensing basis (license amendments).

- NRC staff proposal for an Alternative LAR process
 - NRC staff SECY paper for authorization
 - Regulatory basis contained in COL license condition

- Alternative LAR process
 - Employs an early NRC Staff Acceptance Decision point
 - Following Acceptance determination, a licensee may, at their own risk, design, procure, fabricate, install and test structures, systems and components (SSC) that differ from design elements approved in the COL pending NRC approval of required LAR / Exemptions

Present Status (continued)

Problem Statement #1

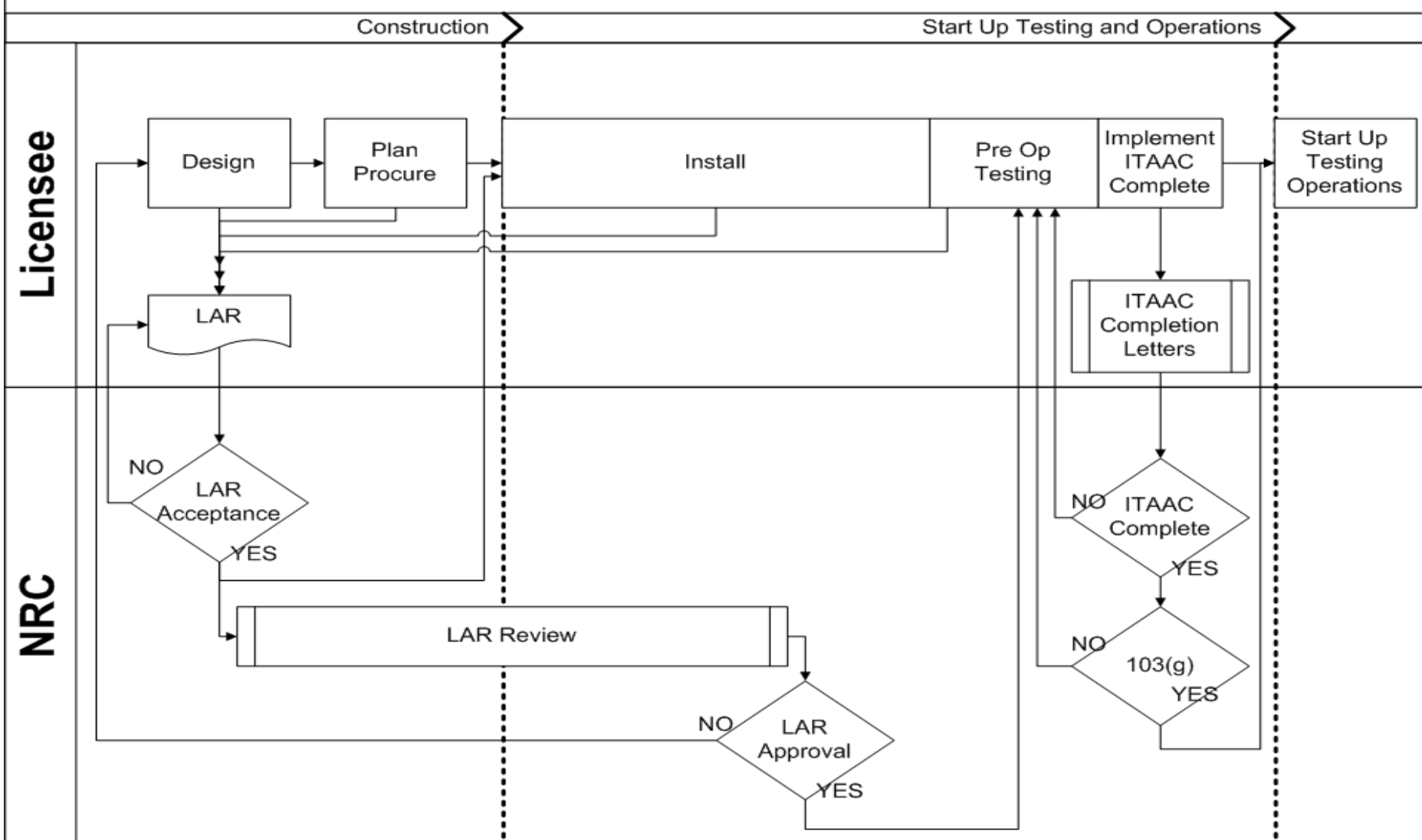
Implementation of the proposed Alternative LAR process will result in three types of license amendment reviews during new nuclear power plant construction:

1. The Normal license amendment process (50.90) where the licensee has sufficient time to obtain NRC approval of the request prior to installation of the changed SSC
2. The Alternative license amendment process where the licensee is requesting to proceed with installation of the changed SSC while the NRC is reviewing the requested license amendment
3. The Accelerated Alternative amendment process where the licensee is requesting to proceed with installation of the changed SSC because of it will soon impact the critical construction path

Present Status (continued)

Problem Statement #1

Proposed LAR Acceptance prior to Construction, LAR Approval prior to Implementation



Present Status (continued) Problem Statement #1

Alternative and Accelerated Alternative LAR Review submittal requires:

1. Notification that licensee desires to adopt the Alternative process
2. Inspectability issues, identification of construction sequences that could impact NRC's ability to perform inspection activities
3. New or changed ITAAC
4. Technical completeness of the LAR

The Accelerated Alternative amendment process may be submitted in two distinct parts. The first part must include a notification to the NRO PM requesting the Accelerated Alternative process and the inspectability information, triggering NRO's special acceptance review.

Present Status (continued)

Problem Statement #1

In the Alternative LAR process, following the NRC Acceptance determination, a licensee may, at their own risk, design, procure, fabricate, install and test structures, systems and components (SSC) that differ from design elements approved in the COL pending NRC approval of required LAR / Exemptions.

- If a LAR is subsequently denied, the plant must be returned to an acceptable configuration
- If a LAR is subsequently approved, the plant must complete the ITAAC

Present Status

Problem Statement #3

Determine for new plants what revisions to the risk-informed guidance for evaluating changes to the licensing basis should be required and determine the applicability of the 10 CFR 50.59 guidance (NEI 96-07, rev 1).

- Risk informed guidance – work in progress
 - Considering ISG on applicability and use of risk informed metrics

- Applicability of NEI 96-07 – work in progress
 - Considering ISG or revision to Regulatory Guide 1.187 endorsing NEI 96-07 revision
 - Applicability determination criteria
 - Screening criteria
 - Work task flow charting
 - NRC review and comments to NEI at the end of January 2011

Present Status

Problem Statement #4

Establish guidance that should be used for evaluating changes to the severe accident design features (VIII.B.5.c) of each design certification rule (construction & operation).

- Public workshop December 2, 2010, ex-vessel severe accident design features changes
 - “*Substantial Increase*” in probability, recommended adopting a definition along the lines of “A particular ex-vessel severe accident previously reviewed and determined to be not credible could be credible.”
 - “*Substantial increase*” in public consequences, recommended adopting a combination of qualitative and quantitative criteria
 - Remove or significantly degrade an ex-vessel severe accident mitigation design feature or
 - A combination of relative increase and contribution of the change to total containment failure probability/ release fraction

Next Steps

Continue dialog and interactions with the public and industry stakeholders on changes during construction

- NEI update revision of 96-07 to incorporate ex-vessel severe accidents section
- NRC staff comments on Revision 0A of NEI 96-07, Appendix C, late January 2011
- Considering Interim Staff Guidance documents
 - Applicability and use of 50.59 or 50.59 like processes, considering revision of Regulatory Guide 1.187 endorsing NEI 96-07 revision
 - Applicability and use of risk informed metrics
 - Proposed Alternative License Amendment Process, finalized in Regulatory Guide
- NRC staff SECY paper to Commission first quarter 2011
- Approximately every 6 weeks the working group will participate in the Construction Inspection Program (CIP) public meetings