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AREVA TN



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AREVA TN Use of the 10 CFR 72.48 Process

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72.48 Main Provision

A licensee or certificate holder may make changes in the design, make changes in procedures, and conduct tests or experiments, without NRC review and approval if:

- ▶ A change to the technical specifications is not required,
- ▶ A change to the license/CoC conditions is not required, and
- ▶ The change, test, or experiment does not:
 - i. Result in more than a minimal increase in the frequency of occurrence of an accident
 - ii. Result in more than a minimal increase in the likelihood of occurrence of a malfunction
 - iii. Result in more than a minimal increase in the consequences of an accident previously evaluated
 - iv. Result in more than a minimal increase in the consequences of a malfunction
 - v. Create a possibility for an accident of a different type
 - vi. Create a possibility for a malfunction with a different result
 - vii. Result in a design basis limit for a fission product barrier being exceeded or altered; or
 - viii. Result in a departure from a method of evaluation

Uses for the 72.48 Process at AREVA TN

- ◆ Most 72.48's are to disposition minor fabrication non-conformances
- ◆ Also, recurring non-conformances dispositioned as use-as-is sometimes lead to fabrication requirement changes and (sometimes) corresponding design changes
- ◆ Other 72.48's are for procedure-change license compliance
- ◆ Client dry storage needs sometimes necessitate design changes; 72.48 is sometimes used for such design changes
- ◆ Not aware of any tests or experiments ever processed by an AREVA TN 72.48

AREVA TN 72.48 Process Qualification Program



- ◆ AREVA TN has a 72.48 qualification program
- ◆ Preparers, Verifiers, and Approvers must be qualified
- ◆ The program involves classroom sessions and an examination
- ◆ The program is largely based on NEI 96-07 Appendix B, “Guidelines for 10 CFR 72.48 Implementation”
- ◆ AREVA TN was involved in the development of NEI 12-04, which is a revised NEI 96-07 Appendix B, and considers it as ‘food for thought’ only, while NRC review is in progress

AREVA TN 72.48 Process

- ◆ AREVA TN has a formal procedure for carrying out the 10 CFR 72.48 process
- ◆ 72.48s involve four forms, signed by a Preparer, a Verifier, and one or more Approvers:
 - Applicability form [Does 72.48 apply?]
 - Screening form [Mainly checks for adverse proposed activities; also other considerations]
 - Evaluation form [Responds to the eight 72.48 questions]
 - FCN form (Final Safety Analysis Report Change Notice) [Does the FSAR need to change?]
- ◆ Summaries of 72.48 evaluations are submitted to NRC every 24 months
- ◆ Design changes are provided to licensees within 60 days

Key Mindsets for the Training and for the Process

- ◆ **72.48 allows licensees/CoC holders to regulating themselves regarding design changes, tests, or experiments, with no NRC review and approval**
- ◆ **If Screening conclusions are at all in doubt, there must be no hesitation to moving to the Evaluation form and the eight 72.48 questions**
- ◆ **If Evaluation conclusions are at all in doubt, there must be no hesitation to moving to the amendment process and submitting to NRC**
- ◆ **The goal is a complete and accurate design and licensing conclusion**

Audit/Inspection

- ◆ Annual internal AREVA audits review the 72.48 process and records
- ◆ (~ triennial) Industry team audits review the 72.48 process and records
- ◆ (~ triennial) NRC inspections review the 72.48 process records

Challenges and Experience (1 of 3)

- ◆ **Adverse effect magnitude and the Screening process**
- ◆ **Malfunctions as they relate to a totally passive system. Three of the eight questions deal with malfunctions. Confusing, even with the “Part 50” explanation**
- ◆ **Departure from methodology, is it pertains to aspects such as elements of methodology, input parameters, computer codes, etc.**
 - **Even with the NEI guideline, the effect of these aspects can prove debatable**
- ◆ **Keeping both the licensing and the engineering hats on (safe *and* legal).**

Challenges and Experience (2 of 3)

- ◆ **Not only can the CoC conditions and the TS requirements not be changed in any way, but ‘implied’ changes must also be considered**
- ◆ **Technical Specifications which are still in the custom format may include the Bases in the TS document.**
- ◆ **Just because we are only changing the UFSAR doesn’t mean that the 72.48 automatically passes. Are we stretching the 72.48 regulatory envelope too far?**

Challenges and Experience (3 of 3)

- ◆ **NEI 12-04 development involved coming up with examples; the committee discussions were interesting in that the example scenario details had to be refined multiple times to get to a point of consensus; in the real world, the scenarios cannot be refined.**
- ◆ **AREVA TN has occasionally met with NRC staff to present the details of an in-process 72.48**
 - **NRC is always very accommodating and interested, but they always asked us what it is we are looking for from them**
 - **We understand that although we sometimes gain some technical insights and general opinions, these meetings are in no way endorsement or approval of our using the 72.48 process for the proposed activity**

Questions?

