

Proposed Fire Protection Changes to GALL Report

April 10, 2002



Preliminary Industry Views

- Preliminary industry views on NRC letter of January 28, 2002 (fire protection)
 - Proposal represents positive change to GALL
 - GALL should provide for reasonable assurance against corrosion effects
 - ◆ Allow variety of inspection frequencies and approaches because of differences in plant-specific experience, materials, and operating conditions



Issue - Application of 54.4(a)(2) Scoping Criteria

Requirements:

- 10 CFR 54.4 (a)2 - All non safety-related (NSR) SSCs whose failure could prevent satisfactory accomplishment of any safety-related (SR) functions identified in paragraphs (a)(1)(i),(ii),(iii) of this section.
- SOC articulates that to limit initial scope of SSCs, applicants should rely on the plant's CLB, actual plant-specific experience, industry-wide operating experience, as appropriate, and existing engineering evaluations to determine those NSR SSCs that are the initial focus of the license renewal review. Consideration of hypothetical failures that could result from system interdependencies that are not part of to CLB and that have not been previously experienced is not required.

Background:

- NRC staff review of Hatch Application requested information regarding NSR piping systems (potential Seismic II/I piping - NSR over SR)
- Issue Broader than Seismic II/I to potentially include piping and non-piping systems
- Staff has had dialog with current applicants (FP&L, Duke, Dominion, Exelon) on the issue during the staff methodology audits. RAI's issued and responses are being developed.
- NRC issued initial letter on piping portion on December 3, 2001.
 - Specific examples of operating experience identified pipe failure events (summarized in Information Notice (IN) 2001-09, "Main Feedwater System Degradation in Safety-Related ASME Code Class 2 Piping Inside the Containment of a Pressurized Water Reactor.")

- Follow-up letter on remaining SSCs issued on March 15, 2002.
 - The evaluation to determine which non safety-related SSCs are within scope should not consider hypothetical failures, but should be based on engineering judgement and operating experience.
 - Operating experience includes all documented plant-specific and industry-wide experience which can be used to determine the plausibility of a failure. Documentation would include NRC generic communications and event reports, plant-specific condition reports, industry reports such as SOERs, and engineering evaluations.

Current Standing:

- Applicants have performed evaluations using the “area’s-based approach,” which identifies SR SSCs and associated NSR SSCs within the plant.
- Applicants can use a combination of the preventative and mitigative approach by increasing the scope of NSR SSCs and by including design features.
- Applicants are considering a wide range of possible conditions affecting SR SSCs including pipe whip, jet impingement, physical contact, leakage, and spray.
- Applicants are considering both piping and non-piping SSCs in their evaluations.
- Plant-specific and industry information is being applied to the evaluations.

Future Actions:

- NEI response to NRC letters
- Incorporation of staff position into improved renewal guidance documents (NUREGs 1800, and/or 1801) in a future update.
- Possible that comparable changes might be needed to NEI 95-10, Revision 3, “Industry Guidance for Implementing the Requirements of 10 CFR Part 54 - The License Renewal Rule.”

LESSONS LEARNED FROM GALL DEMO PROJECT AND FT. CALHOUN REVIEW

1. GALL DEMO PROJECT EXERCISED AGING MANAGEMENT, NOT SCOPING
2. LINKAGE BETWEEN SECTIONS 2 AND 3 OF THE APPLICATION WAS NOT EXERCISED
3. INDUSTRY VERSUS STAFF UNDERSTANDING OF LINKAGE

ORIGINAL UNDERSTANDING: LINKAGE INFORMATION WOULD BE KEPT ON SITE AND VERIFIED VIA INSPECTION

CURRENT UNDERSTANDING: LINKAGE WOULD BE INCLUDED IN THE LRA

4. LRA DESCRIPTIONS FOR AMPs THAT “WILL BE CONSISTENT” WITH GALL SHOULD INCLUDE AREAS THAT NEED ENHANCEMENTS
5. OPPD HAS PROVIDED LINKAGE INFORMATION AND AMP ENHANCEMENTS IN LRA SUPPLEMENT
6. STAFF IS REVIEWING LRA SUPPLEMENT

SECTION 3 REVIEW AND INSPECTION

ACTIVITY

REVIEWER

INSPECTOR

COMPONENT ACCOUNTABILITY	100%	N/A
COMPONENTS NOT IN GALL	100%	SAMPLE
GALL COMPONENTS - ADDITIONAL EVALUATION	100%	SAMPLE
GALL COMPONENTS - NO EVALUATION	N/A	SAMPLE
LRA AMPs - GALL AMPS	N/A	SAMPLE
NON-GALL AMPs	100%	SAMPLE
FSAR SUPPLEMENT	100%	N/A

CONCLUSION

GALL SHOULD PROVIDE SUBSTANTIAL RESOURCE AND TIME SAVINGS

WILL DOCUMENT LESSONS LEARNED FOLLOWING STAFF REVIEW OF FORT CALHOUN