

Agenda
U.S. NRC Staff and the Nuclear Energy Institute Meeting
April 2, 2008

<u>Generic License Renewal - Topics</u>	<u>Lead</u>
1. Implications of pursuing an NFPA 805 license amendment concurrent with a license renewal application	NRC
2. Environmental topics	
a. Status – Generic Environmental Impact Statement update	NRC
b. Discussion of mitigation in environmental reviews	
3. GALL Report update	NRC
4. Audit Process	NRC
5. Post-approval renewal inspection procedure (IP-71003) revision	NRC
6. Station blackout scoping – status of Interim Staff Guidance	NRC
7. New topics	NRC/NEI
8. Public participation	All

The following represent options for approaching concurrent reviews of a license renewal application (LRA) and a license amendment request (LAR) to adopt NFPA 805 to resolve non-compliances with 10 CFR 50.48.

Option 1:

Applicant can submit the NFPA 805 LAR after the license renewal review is completed and a renewed license is issued.

Option 2:

Applicant can submit the NFPA 805 LAR after submitting the license renewal application. If the license renewal review is well underway, this could require the staff to suspend the license renewal review until an amended license is issued to establish the new CLB for 10 CFR 50.48 (fire protection) compliance.

Option 3*:

Applicant can submit the NFPA 805 LAR before or shortly after submitting a license renewal application. CLB changes associated with the NFPA LAR may be considered in accordance with 10 CFR 54.21(b) provided that

1. the NFPA 805 LAR is processed by the staff,
2. the license is amended,
3. associated CLB changes are submitted by the applicant as a amendment to the LRA, pursuant to 10 CFR 54.21(b), and
4. the staff has sufficient time to review the CLB changes before the license renewal Final SER is issued.

**Caveat for Option 3 - the viability of this option will depend on several factors, including:*

- *the timing of the NFPA 805 LAR submittal relative to the LRA submittal,*
- *how long the staff takes to complete the NFPA 805 LAR review, and*
- *the scope and volume of associated changes to the CLB requiring license renewal review.*

Aging Management Programs NOT Consistent with GALL

1. AMPs with a specific ASME Code Year in the description of the AMP or in one of the ten elements:
 - a. XI.M1 – ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD
 - b. XI.M3 – Reactor Head Closure Bolts
 - c. XI.M4 – BWR Vessel ID Attachment Welds
 - d. XI.M5 – BWR Feedwater Nozzles
 - e. XI.M6 – BWR Control Rod Drive Return Line Nozzle
 - f. XI.M8 – BWR Penetrations
 - g. XI.M9 – BWR Vessel Internals
 - h. XI.M25 – BWR Reactor Water Cleanup System (The text and the reference is to 2001 edition of the ASME Code, but both should refer to 1986 edition.)
 - i. XI.S1 - ASME Section XI, Subsection IWE (The details in attribute 3 are based on the 1992 edition of the ASME code, and may not be accurate for other editions.)
 - j. XI.S2 – ASME Section XI, Subsection IWL
 - k. XI.S3 – ASME Section XI, Subsection IWF

2. AMPs with a specific ASME Code year listed in the references or implied in the text:
 - a. XI.M7 – BWR Stress Corrosion Cracking (GALL lists both ASME 1986 and 2001 in the references. The text correctly calls out 1986 edition of ASME Code)
 - b. XI.M12 – Thermal Aging Embrittlement of CASS (Reference to specific sections of the ASME Code in attributes 6 and 7 indicate a specific code edition.)
 - c. XI.M13 – Thermal Aging and Neutron Irradiation Embrittlement of CASS (Reference to specific sections of the ASME Code in attributes 6 and 7 indicate a specific code edition.)
 - d. XI.M18 – Bolting Integrity (The text correctly references the 1995 edition of the ASME Code, but the reference section lists the 2001 edition of the ASME Code)
 - e. XI.M32 – One-Time Inspection
 - f. XI.M35 – One-Time Inspection of ASME Code Class 1 Small Bore-Piping

3. AMPs which reference a specific year or revision to an industry standard or NRC standard:
 - a. XI.M2 – Water Chemistry
 - b. XI.M17 – Flow-Accelerated Corrosion
 - c. XI.M19 – Steam Generator Tube Integrity
 - d. XI.M21 – Closed-Cycle Cooling Water System
 - e. XI.M35 - One-Time Inspection of ASME Code Class 1 Small Bore-Piping
 - f. XI.S6 – Structures Monitoring Program (ACI Code)
 - g. XI.S7 – RG 1.127, Inspection of Water-Control Structures Associated with Nuclear Power Plants (ACI Code)
 - h. XI.S8 – Protective Coating Monitoring and Maintenance Program

4. AMPs where the scope was expanded to include components, materials, environments, or aging effects not covered in the GALL AMP:
 - a. XI.M20 – Open-Cycle Cooling Water System (GALL does not include aging effects for concrete)
 - b. XI.M29 – Aboveground Steel Tanks (This AMP has been used for other materials, e.g. aluminum; exceptions also taken for frequency)
 - c. XI.M30 - Fuel Oil Chemistry (The scope of the AMP is only for fuel oil storage tanks, but it is also used for other components)

- d. XI.M34 – Buried Piping and Tanks Inspections (Only for steel tanks and piping, does not include stainless steel, aluminum, titanium, or other materials; credits coatings, which may not be used on some materials, such as stainless steel; specifies external inspections when UT from inside has been used frequently)
 - e. XI.M36 – External Surfaces Monitoring (GALL AMP is limited to steel components; AMP is used for other materials, including elastomers, with corresponding aging effects)
 - f. XI.M38 – Inspection of Internal Surfaces in Miscellaneous Piping and Ducting Components (GALL AMP is limited to steel components; AMP is used for other materials, including elastomers, with corresponding aging effects and inspection techniques)
5. AMPs where different inspection methods are used
- a. XI.M30 – Fuel Oil Chemistry (GALL is based on standards in Standard Tech Specs. Some plants do not use Standard Tech Spec, but have Tech Spec requirements based on different ASTM standards than in the GALL)
 - b. XI.M33 – Selective Leaching of Materials (GALL specifies hardness testing, but other techniques have been accepted)
6. Different inspection frequencies
- a. XI.M26 – Fire Protection (GALL frequencies for Halon and CO₂ systems are more frequent than current practice)
7. Exceptions to inspections routinely taken
- a. XI.M18 – Bolting Integrity (This GALL program includes structural bolting, and permits the use of XI.S6 Structures Monitoring, but specifies requirements, such as torque/tension testing, not required by SMP.)
 - b. XI.M22 – Boraflex Monitoring (GALL requires blackness tests and inspection of coupons; but some plants use BADGER testing instead of blackness tests and some plants do not have coupons)
 - c. XI.M39 – Lubricating Oil Analysis (GALL includes analysis for flash point; this is performed only for lube oil subject to fuel contamination)
 - d. XI.E6 – Electrical Cable Connections Not Subject to 10 CRF 50.49 EQ Requirements (subject of an ISG)
 - e. X.S1 – Concrete Containment Tendon Prestress (GALL describes use of Reg Guide 1.35.1, but many plants use criteria and methods in ASME XI, IWL as incorporated in 10 CFR 50.55(a))
 - f. XI.S7 – RG 1.127, Inspection of Water-Control Structures (GALL allows the use of XI.S6 Structures Monitoring Program for plants that are not committed to RG 1.127 for the current term, but imposes requirements of RG 1.127 that are different than in XI.S6)

AMPs with no issues:

- 1. XI.M10 – Boric Acid Corrosion
- 2. XI.M11A – Nickel-Alloy Penetration Nozzles Welded to the Upper Reactor Vessel Closure Heads of PWRs – The reference to ASME code sections in the text is not to a specific year. One of the references is to 10CFR50.55a, 2005, which does endorse a specific ASME Code year. This has not been determined to be an exception to GALL because the code year is not listed in the document.

3. XI.M14 – Loose Part Monitoring
4. XI.M15 – Neutron Noise Monitoring
5. XI.M16 – PWR Vessel Internals
6. XI.M23 – Inspection of Overhead Heavy Load and Light Load Handling Systems
7. XI.M24 – Compressed Air Monitoring
8. XI.M27 – Fire Water System
9. XI.M28 – Buried Piping and Tanks Surveillance (seldom, if ever, used. XI.M34 typically used)
10. XI.M31 – Reactor Vessel Surveillance
11. XI.M37 – Flux Thimble Tube Inspection
12. XI.S4 – 10 CFR Part 50, Appendix J
13. XI.S5 – Masonry Wall Program
14. XI.E1 – Electrical Cables and Connections Not Subject to 10 CFR 50.49 EQ Requirements
15. XI.E2 – Electrical Cables and Connections Not Subject to 10 CFR 50.49 EQ Requirements Used in Instrumentation Circuits
16. XI.E3 – Inaccessible Medium Voltage Cables Not Subject to 10 CFR 50.49 EQ Requirements
17. XI.E4 – Metal Enclosed Bus
18. XI.E5 – Fuse Holders
19. X.M1 – Metal Fatigue of Reactor Coolant Pressure Boundary
20. X.E1 – EQ of Electrical Components