Public Meeting on SLR Efficiencies

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Graded Approach

- Risk and safety significance should be a driver for depth of review
- Maximize credit for adherence to guidance and standardization
- Focus on what has changed since the ILR review
  - AMPs that are unchanged over GALL revisions
  - AMPs with minimal changes over GALL revisions
- Fleetwide programs already reviewed for another ILR/SLR
- Licensee commitments that continue from ILR through SLR
- Routinely inspected programs subject to other regulatory requirements

Leveraging Oversight

In addition to LR inspections (IP 71003), the NRC routinely inspects:

IP Number	IP Title	Frequency
71111.05	Fire Protection	Quarterly, Annually, Triennially
71111.08	Inservice Inspection Activities	Each Refueling Outage
71111.12	Maintenance Effectiveness	Annual/As Required
71111.21	Comprehensive Engineering Team Inspection	Quadrennially
71111.21N.04	Age-Related Degradation	Quadrennially
71152	Problem Identification and Resolution	Semiannually, Annually, Biennially

IP 71111.05 – Fire Protection

- **IP Excerpts**
  - Spot check sprinkler piping, hanger, or seismic braces condition and damage or leakage. Look for corroded piping or hangers, broken hangers, improper pipe alignment or other adverse conditions.
  - [Validate] Material conditions such as mechanical damage, painted sprinklers/nozzles, and corrosion will not affect the performance of the system.

- **Sample Inspection Report Excerpts**
  - The inspectors performed in-plant observations to verify the material condition.
  - The inspectors reviewed engineering drawings and specifications to verify that the as-built configuration of fire suppression equipment was adequately maintained.
  - The inspectors also verified that the suppression equipment met applicable NFPA standards.
  - The inspectors reviewed completed surveillance testing and maintenance procedures to verify that the equipment was adequately maintained.

IP 71111.08 – Inservice Inspection Activities

- **<u>Objective</u>**
  - To verify that the reactor coolant system boundary, SG tubes, reactor vessel internals, risk-significant piping system boundaries, and containment boundary are appropriately monitored for degradation and that required repairs and replacements are appropriately examined and accepted.

IP 71111.08 – Inservice Inspection Activities

- **IP Excerpts**
  - The following applies to other augmented license renewal or industry initiative examinations:
    - (1) Activities are performed in accordance with the licensee's augmented inspection program and associated examination procedure (e.g., examinations of components such as vessel internals subject to fatigue, intergranular stress corrosion, or irradiation-assisted stress corrosion; feedwater pipe subject to flow-accelerated corrosion; nickel-based weldments subject to primary water stress-corrosion cracking (SCC)).
    - (2) Indications and defects, if present, are dispositioned in accordance with the licensee's procedures and NRC requirements.
    - (3) Activities are performed in accordance with applicable industry guidance documents, aging management programs, and commitments.

IP 71111.12 – Maintenance Effectiveness

- **Objective**
  - To verify the licensee appropriately addresses structures, systems, component (SSC) performance or condition problems within the scope of the MR.

- **IP Excerpts**
  - The intent of this inspection is to verify that maintenance is effective so that plant equipment will perform its intended function when required.
  - Concentrate on issues/problems associated with SSCs of high safety-significance
    - Passive long-lived SSCs exposed to aggressive environments
  - If reviewing a passive long-lived SSC, evaluate the licensee's treatment of the issues in regard to aging management program requirements cited in the Updated Final Safety Analysis Report (UFSAR).

IP 71111.12 – Maintenance Effectiveness

- **IP Excerpts**
  - For plants in the period of extended operation, the inspectors should request, and review plant information related to passive long-lived SSCs where inspections or tests have not met acceptance criteria. From this data, select one to two additional samples of the more risk significant SSCs. If there are no instances where passive long-lived SSC inspections or tests have not met acceptance criteria, this sample is not required.

IP 71111.21 – Comprehensive Engineering Team Inspection

- **IP Excerpts**
  - Verify that the selected SSCs have been maintained and will operate within their design and licensing bases requirements.
  - Verify SSCs are managed in accordance with aging management programs established pursuant to 10 CFR Part 54, if applicable.
  - Identify the aging management programs applicable to the SSC sample. Verify the licensee is effectively implementing the applicable aging management programs. Consider any commitments they may have outlined in the supporting NRC safety evaluation report.

IP 71111.21.N04 – Age-Related Degradation

- **Objectives**
  - To verify that engineering performance and maintenance activities to address age-related degradation for structures and components (SCs) are being conducted in a manner that provides reasonable assurance of the safe operation of the plant.
  - To verify that age-related degradation for plant SCs is appropriately identified, addressed, and corrected.

IP 71152 – Problem Identification and Resolution

- **IP Excerpts**
  - Issues that may be age-related (e.g., due to aging effects such as loss of material, loss of preload, or cracking). Plants with renewed licenses have established aging management programs (AMPs) to identify, address, or prevent aging effects prior to loss of intended function for those SSCs within the scope of the AMP. When inspecting degradation or failures that appear to be age-related, inspectors should, in addition to other inspection activities, determine whether the SSC is being managed by an AMP. If so, the inspector should also determine whether the activities in the AMP are adequate to identify the aging effect prior to loss of SSC intended function, and whether the licensee's corrective actions address the adequacy of the AMP.

Discussion