

WOLF CREEK

NUCLEAR OPERATING CORPORATION

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Cindy Bladey
Office of Administration
Mail Stop: OWFN-12-H08
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

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12/23/2015
80 FR 79956

Reference: Federal Register Notice, 80 FR 79956, dated December 23, 2015

Subject: Docket No. 50-482: Comments on NRC Draft NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report, Volume 2," Docket ID NRC-2015-0251

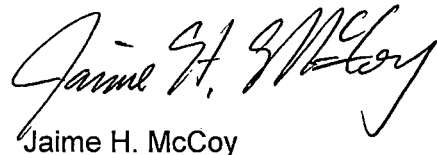
Dear Ms. Bladey:

On December 23, 2015, the Nuclear Regulatory Commission (NRC) published the Reference, which issued for public comment draft NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report, Volume 1 and Volume 2."

The purpose of this letter is to provide comments on the draft NUREG-2191, Volume 2. The attachment provides these comments.

This letter contains no commitments. If you have any questions concerning this matter, please contact me at (620) 364-4156, or Cynthia R. Hafenstine (620) 364-4204.

Sincerely,



Jaime H. McCoy

JHM/rit

Attachment

cc: M. L. Dapas (NRC), w/a
C. F. Lyon (NRC), w/a
N. H. Taylor (NRC), w/a
Document Control Desk (NRC), w/a
Senior Resident Inspector (NRC), w/a

SUNSI Review Complete
Template = ADM - 013
E-RIDS = ADM-03
Add = B. Brody (bmb1)
S. Bloom (sdb1)

Comments on Proposed Draft NUREG-2191, Volume 2

The following provides Wolf Creek Nuclear Operating Corporation's (WCNOC) comments on the draft NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report, Volume 2."

General Comments:

1. Little or no credit is given to the existing programs that were committed to in the original License Renewal Applications (LRAs). The wording seems to indicate that licensees are starting from "ground zero", rather than updating the Aging Management Programs (AMPs) from the original period of extended operation (PEO) with current operating experience (OE).
2. Additional inspections/monitoring that are being made requirements for the subsequent PEO, which were above and beyond those for the original PEO have little or no justification provided. Including:
 - a. Perform ultrasonic thickness (UT) measurements of the containment shell or liner surfaces inaccessible from one side on a random and focused basis each 10 year interval. (XI.S1)
 - b. Perform surface examination of stainless steel (SS) material and dissimilar welds of penetration sleeves and penetration and vent line bellows every 10 years regardless of cyclic loading, stress corrosion cracking (SCC), or whether a current licensing basis fatigue analysis exists. (XI.S1)
 - c. Inspect an additional 5% American Society of Mechanical Engineers (ASME) Section XI, Subsection IWF piping supports for class I, II, and III every 10 years. (XI.S3)
 - d. Visual inspection all ASME Section XI, Subsection IWF bolts; and volumetric examination of ASTM A325, A490, F1852, and F2280 bolts every 10 years. (XI.S3)
 - e. UT of high strength bolts every 5 years on Refueling Crane structural members. (XI.M23)
 - f. Increased frequency inspection every 3 years (vs. 5 years previously) for unbraced and unreinforced masonry walls. (XI.S5)
 - g. New requirement – seasonally perform through-wall leakage or groundwater infiltration quantification and chemistry analysis. (XI.S6) (XI.S7)
 - h. Perform focused inspections of below grade inaccessible concrete exposed to aggressive groundwater/soil every 5 years frequency. (XI.S6) (XI.S7)
 - i. Testing of in scope inaccessible non-environmentally qualified (EQ) instrumentation & control cables every 6 years. (XI.E3B)
 - j. Testing of in scope inaccessible low voltage (below 400v) every 6 years. (XI.E3C)
 - k. Increased metal enclosed bus bolted inspection testing from a 20% sampling to 100% every 10 years. (XI.E4)
 - l. Change non-EQ connection testing from one-time testing before the PEO to periodic testing every 10 years. (XI.E6)

- m. Class 1 pump casings should continue to be exempt similar to valves bodies. Both pump casings and valve bodies are adequately managed by ASME Code inspection requirements. (XI.M12)

3. Inspection criteria in several cases are overly restrictive:

- a. Containment liner bulge evaluation. (XI.S1)
- b. Change to ASME Section XI, Subsection IWL program to record and trend cracking without any threshold of significance. (XI.S2)
- c. Inspecting for surface discontinuities and imperfections, and clearances and physical displacement for signs of loose joints is overly prescriptive. Inspection for signs of leakage should be sufficient, especially for non-safety related bolting. (XI.M18)
- d. Surface examinations for aluminum and SS cracking are not necessary. Cracking can be seen visually prior to loss of intended function. Additionally, surface examinations for opportunistic inspections are overly burdensome. (XI.M38)
- e. Need increased flexibility for further evaluations of alkali-silica reaction (ASR), and the threshold for plant specific and potential actions should be identified. (XI.S6)

AMP Specific Comments:

AMP No.	AMP Title	Comment
XI.M1	Cycle Load Monitoring	Program Description: Allow the use of NUREG/CR 5709 for stainless steel components, or NUREG/CR 6583 for carbon and low alloy steel components since each was deemed acceptable in GALL Rev 2 for evaluating environmental fatigue.
XI.M1	ASME Section XI Inservice Inspection, Subsections IWB, IWC, and IWD	Program Description: Recommend deletion of wording to a specific year edition and addenda and replace with "in accordance with applicable plant ASME Code Section XI edition(s) and approved addenda."
XI.M3	Reactor Head Closure Stud Bolting	2. Preventive Actions: If plants have taken exceptions to actual yield strength less than 150ksi for 40 to 60 year license renewal application, continuing to recommend this limitation (less than 150ksi) for studs fabricated prior to 2010 is unnecessary and will result in unnecessary declarations of exceptions in the future SLR applications.
XI.M11B	Cracking of Nickel-Alloy Components and Loss of Material Due to Boric Acid-Induced Corrosion in Reactor Coolant Pressure Boundary Components	4. Detection of Aging Effects: A baseline volumetric exam of all susceptible material nickel alloy bottom mounted instrument nozzles may not be possible due to geometry / accessibility of the components. Industry visual examinations have been proven capable of detecting relevant indications before the effects of aging progress to point of causing a loss of intended function. This action is not required.

XI.M12	Thermal Aging Embrittlement of Cast Austenitic Stainless Steel (CASS)	Program Description: Per letter May 19, 2000 from Christopher Grimes (NRC) to Douglas Walters (NEI) screening for susceptibility to thermal aging embrittlement is not required for pump casing and valve bodies. Existing ASME Code Section XI inspection requirements are adequate for pump casings and valve bodies. Recommend deleting the requirement to screen pump casing for thermal aging embrittlement.
XI.M16A	PWR Vessel Internals	This AMP has been deleted. EPRI 1022863, "Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227-A)" is based on a program for licensees' first PEO (i.e. 40-60 years). However, MRP-227-A is a living program and is informed based on latest OE. Therefore, it is recommended that MRP-227-A be included as a generic starting point to manage aging for the reactor vessel internals.
XI.M17	Flow-Accelerated Corrosion	6. Acceptance criteria: While a suggested safety factor for acceptable wall thickness and remaining life of 1.1 is recommended in the industry guidance document, this safety factor should not be included as a regulatory requirement.
XI.M18	Bolting Integrity	4. Detection of Aging Effects: Little justification is provided to increase the inspection of bolts in locations that preclude detection of joint leakage beyond the requirement of bolt heads are inspected when accessible and bolt threads are inspected when joints are disassembled to require a minimum of in each 10 years inspect a minimum of 20% of the population of bolts heads and threads per material and environment with a maximum of 25.
XI.M42	Internal Coatings /Linings for In Scope Piping, Piping Components, Heat Exchangers, and Tanks	7. Corrective Action: In regards to repair of blisters, the requirement to conduct physical testing if the blisters are not repaired can result in more damage to the coatings than just leaving the blisters. It is recommended the wording be revised to include lightly tapping the surrounding coating to determine the soundness of the coating.
XI.S1	ASME Section XI, Subsection IWE	4. Detection of Aging Effects: ASME Section XI, Subsection IWE only requires augmented inspections (i.e., UT measurements) for "surface areas subject to accelerated degradation and aging." The additional requirement to UT containment shell or liner surfaces inaccessible from one side at random locations, regardless of whether or not those areas are subject to accelerated degradation is not warranted. This requirement is beyond the ASME Code and 10 CFR 50.55a requirements and no technical basis exists for this inspection. This requirement will add significant dose and cost and little safety benefit.
XI.S3	ASME Section XI, Subsection IWF	4. Detection of Aging Effects: No technical basis or applicable OE was provided to require an additional 5% of ASME Section XI, Subsection IWF piping supports beyond the ASME Code requirements to be examined. These additional examinations will add significantly to the scope and increase dose.

XI.S5	Masonry Walls	4. Detection of Aging Effects: No technical basis or applicable OE was provided for the inspection frequency requirements of every 3 years for unreinforced and unbraced masonry walls.
XI.S6	Structures Monitoring	4. Detection of Aging Effects: Change to ground water monitoring frequency to address potential seasonal variations (e.g. quarterly or semi-annually) is overly proscriptive and provides little or no value and should remain at the 5-year interval.
XI.S7	Inspection of Water-Control Structures Associated with Nuclear Power Plants	4. Detection of Aging Effects: Changes to ground water and raw water monitoring frequency to address potential seasonal variations (e.g. quarterly or semi-annually) are overly proscriptive and provide little or no value and should remain at the 5-year interval.
XI.E6	Electrical Cable Connections not Subject to 10 CFR 50.49 Environmental Qualification Requirements	Program Description and 4. Detection of Aging Effects: Little or no justification to change the requirement from one-time testing to periodic testing on a 10-year basis.